The Hebrew University of Jerusalem

The Federmann School of Public Policy and Government

Master's Thesis:

Calculating States' Regulatory Budgets: Methodology and an Application to the 2014 Israeli Budget

Submitted by Aviad Nevo

Supervisor: Prof. David Levi-Faur

Master's Thesis

31 December 2015

Calculating States' Regulatory Budgets:
Methodology and an Application to the 2014 Israeli Budget

Abstract:

We know little about the costs of regulation in states fiscal budgets. This is true of Israel, as it is true of all other countries except the United States. States fiscal budgets do not distinguish between expenditures on regulation and other expenditures. Budgets are organized according to subject area and tasks rather than instruments or strategy of governance. Ministries, agencies and sub-departments do not systematically distinguish between regulatory and other functions in their budgets; they are mainly task-oriented. Following this state of affairs, this thesis aims to achieve two goals. The first is to develop a reliable, transparent and replicable methodology for determining the regulatory budget of states from their budget books, useful across countries and over time. The second goal is to assess the size and scope of the Israeli regulatory budget for one year. My estimates suggest that the total expenditures on regulation are 1.4 % of the 2014 state budget with an estimated margin of error of -0.36% and +0.66% (e.g., 1.04% - 2.06%). Further research is needed in order to determine the reliability of the estimate and to strengthen the methodology, including using this methodology to produce longitudinal data on states regulatory budgets. This would allow us to better understand the dynamics of the rise of the regulatory functions of the state, and contribute to its accountability and transparency.

Acknowledgments

I would like to express my gratitude to the entire close circle of people who stood by me during the last few years, encouraged and supported me, each in his or her way. Special thanks to Prof. David Levi-Faur who inspired and insisted for high standards, to Hanan Haber for high quality notes and to Lital Ovadia, which helped me get back on track after a long pause.

Table of Contents

LIST OF TABLES

LIST OF FIGURES

The government's view of the economy could be summed up in a few short phrases: If it moves, tax it. If it keeps moving, regulate it. And if it stops moving, subsidize it.[1]
~Ronald Reagan

Morality cannot be legislated, but behavior can be regulated. Judicial decrees may not change the heart, but they can restrain the heartless.[2]
— Martin Luther King Jr

Chapter 1: Introduction:

The issue of regulation has earned an increasing attention in recent years. The issue usually puts on the agenda when appearing either in a negative context of slow economic growth and/or recession, or in a positive context of safety, sustainability etc. Frequent criticisms with regard to regulation usually focus on its design, quantity, flexibility (e.g., too much strict, not sufficiently strict), enforceability, stickiness and legitimacy. It is natural that the attitudes towards regulation do vary. The assumption is that political left-wing people are in favor of it, whereas the right-wing people disapprove it, and at the same time, neo conservatives and neo liberals regard it as too interventionist. However, those are rather simplistic views since one doesn't support or oppose regulation in the abstract. What matters here, is the specifics of a given regulation, to wit, costs, benefits, the particular form and usability throughout a specific context and time. Consequently, in this regard, the left and right dichotomy, cannot take us too far. Be in favor of it or not, the 1980s privatization and liberalization have been accompanied by an increase in the number and scope of regulation in many spheres and countries, and has led to the thesis of the rise of the regulatory state (Majone, 1994, 1997) and regulatory capitalism (Levi-Faur, 2005; Braithwaite, 2008). In these mentioned formulations there is either a shift in the state's role, from being a service supplier to become a regulator (Majone, 1997), or simply be an expansion of the regulatory morphs of the state (Levi-Faur, 2013). In both these formulations, regulation has become an increasingly essential instrument for policy making as well as governance.

Regulation is a flexible instrument that is unbound to a specific field and can be applied to any social or business activity beginning with providing childcare services unto cellular radiation

[1] Remarks to State Chairpersons of the National White House Conference on Small Business. August 15, 1986.
[2] Strength to love. 1963

standards, throughout finance issues up to environmental protection and can be viewed in many other fields. Dating back to Roman law, there were already at hand administrative agencies established to enforce particular standards, such as dealing with food, shipping, weights and measures. Modern regulatory institutions were formed since the end of the 19th century. However, only in recent years, we are able to witness some real attention given by governments to the regulatory function as a profession, which can and should be understood to the core, mapped and optimized. Due to its significance in the discussion of political economy, and its increasingly critical role played within government activities, it is highly crucial to have a well-established comprehensiveness of the scope regarding regulatory activity.

Not only the scope of regulation is important to measure, assesses and measure, but also costs and benefits of regulation are. Until now, efforts to quantify regulatory activity have mostly dealt with the development of regulatory institutions, regulatory influence and effects, and regulatory decision-making tools such as Cost Benefit Analysis (CBA) and Regulatory Impact Assessment (RIA) (Sunstein, 2002; Radaelli & De Francesco 2007). The latter (CBA and RIA) are widely used in the United States of America since the 1980's and in the European Union in the former decade. Israel too, has been starting to regard regulation in a quantifiable manner having in mind to minimize regulatory costs by 25% (government decision 2118, 10.22.2014) and creating a 'map' of its main regulators.

These efforts made both by public officials and academic research have related mainly to the costs of the regulated party. They have, in fact, neglected the government cost facet, namely, the regulatory expenditure of the government fiscal budget. Although sometimes it is taken into consideration when a CBA assessment is made along with making individual regulatory decisions, the overall picture of a government expenditure on regulation is yet to be unknown. Additionally, research has not regarded the dynamics of government aspect of regulatory costs. For example, to what extant do regulatory costs influence the scope and type of regulatory policy, and how does this influence relate to other factors corresponding to compliance costs, political and institutional influences, etc.

Our knowledge regarding the costs of regulation in the state budget is poor; no academic material is to be found on assessing the level of regulatory expenditure, how it has changed over time, or the international comparisons on the subject that have been performed. One of the reasons is the

fact that state budgets do not discern between expenditures on regulation and those which are not. Budgets are organized according to areas of activities and various tasks rather than instruments or strategy of governance. Ministries, agencies and even sub-departments do not systematically differentiate between their regulatory functions and other services they operate as well as the way they treat their budgets. The only noticeable assessment of a state's regulatory budget is an annual report shown by the Weidenbaum Center on the Economy, Government, and Public Policy at Washington University in St. Louis (Dudley & Warren 2014). This report has evaluated federal regulatory expenditure since 1960 and has provided significant information such as regulatory expenditure trends and breakdown unto regulatory agency expenditure and prevailing staffing. And yet, in spite of the effective information furnished by the said report, which may be used as a benchmark in assessing regulatory budgetary costs, it naturally owns its methodological drawbacks. The report does not detail the manner in which the assessment process is carried out, nor does it provide a transparent and universal model which may be applied to other countries. Conductive to deepening our understanding of the scope, the magnitude and changes in regulation, it is imperative to lay out a transparent methodology and hence discuss its outcomes in a theoretical context thereby.

Subsequent to the aforementioned discussion, this thesis aims to attain two goals. Firstly, it is supposed to formulate a reliable and clear analytical method for assessing the government regulatory budget. Achieving this goal is thus expected to increase our understanding of regulatory activity, its scope and variance across countries and time. The second goal to be mentioned is to assess the size and scope of the Israeli regulatory budget in a specific year (2014). By adding an actual world case study to the development of an assessment methodology, both these goals can be expected to mutually support each other.

The study is organized as the bellow. Chapter 2 provides a review of the literature in relation to definitions of regulation, regulatory measuring, regulatory costs and problems considering government budget structure and format, ones which present challenges for a further and comprehensive analysis. Chapter 3 lays out the analytical method for assessing a regulatory budget and thereupon presents a database. An assessment of the regulatory budget in Israel is offered in

Chapter 4, serving as an implementation of the devised method on a case study. Chapter 5 discusses the results, possible implications, strengths and weaknesses of the mentioned method. Chapter 6 is a conclusion.

Chapter 2: Defining, Identifying and Measuring the Annual Regulatory Costs of Governments

The regulatory budget is a term mainly used in reference to compliance costs (Malyshev 2010, DeMuth, 1980; Thompson, 1997) but yet is needed to be defined or operationalized with regards to government expenditure on regulation. The term 'Regulatory Budget' must be defined accurately for the sake of developing and using a data analysis method that might measure it. Therefore, in this chapter, I consider the definition of regulation in a regulatory academic research and grant a conclusion of the definition relevant for the purposes of this study. It will be succeeded by my consideration of the perspective that has been used for measuring regulatory inputs as well as operations. Finally, I consider the topic of a government budget, boundaries and the problems arising from exploring budgets.

2.1 The Concept of Regulation

The term regulation has an elusive and evolving meaning. The United States of America defined regulation in the Executive Order (EO) 12866 as:

"...an agency statement of general applicability and future effect, which the agency intends to have the force and effect of law, that is designed to implement, interpret, or prescribe law or policy or to describe the procedure or practice requirements of an agency".

This definition is rather expansive and yet it illustrates an understanding of regulation as an act made by a government agency. A proximate inspection of EO 12688, demonstrates that regulation is viewed as a form of governance along with the purpose of protecting the public. The British government definition for regulation, though not explicitly, describes several various types of regulation: rules, restrictions, conditions and setting standards, giving guidance and securing compliance as well as enforcement (Legislative and Regulatory Reform Act, 2006; 32 (2)).

The Israeli government has defined regulation as the following:

"Law or rule of a legislative nature which includes mandatory behavior in an economic or social activity, and is enforceable by an administrative authority…excluding taxes or tolls"[3]

[3] Government decision number 2118 – "Reducing the regulatory burden", 10.22.2014. http://www.pmo.gov.il/policyplanning/Regulation/Documents/dec2118.pdf

Although this is a very narrow definition of regulation, it does refer to three fundamental components. Firstly, it specifies very distinctly categories types of regulation. Secondly, for an activity to be considered as a regulation, it should be enforceable by an administrative organization and thirdly, it excludes similar and essential government activities (for instance taxation). This is very inwardly as well as institutionally oriented-definition. It puts inferior formal categories of regulation, especially most non-government regulation. Just recently, the Israeli government defined regulation as the follows[4]:

"Rules, regulations, standards or other norm of a legislative nature".

Both versions emphasize the "legislative nature" of regulation when norms are considered, there is also an emphasis upon their "mandatory" aspect.

In contrast to formal state's definitions, the academic literature has defined regulation in more and above general terms and apparently "evolutionalized" the definition. In the mid-20th century, the prevalent use of regulation based upon any government intervention, whereas in recent years the term regulation has become distinct to some extent from other policy instruments (Levi-Faur, 2011; Scott, 2004). One of the major perspectives in the research concerning regulation is the issue of government control over other players (Scott, 2004). Of the more influential definitions, Selznick highlights the relation between the rule and that agency which establishes the rule, or the agency that employs the rule for its own operations and goals: "sustained and focused control exercised by a public agency over activities that are valued by the community" (Selznick, 1985). This perspective sheds light upon the continuation or the sustainable characteristics of regulation, even though it excludes business-to-business regulation and civil regulation (Levi-Faur, 2011). A more recently research has described regulation as rule making, rule monitoring, rule enforcement and as an action taken post incident (Hood et al. 2001). Levi-Faur defines regulation as bureaucratic activity while excluding primary law or court made law (Levi-Faur, 2011). Recent decades have seen the emergence of the post regulatory state perspective; this approach argues against the notion of clear boundaries between the state and the supervised market. Instead, it analyses self-regulation, regulatory networks, and hybrid models (Scott, 2004; Lobel, 2004; Börzel,

[4] Government decision number 708 – 08.25.2013.
http://www.pmo.gov.il/Secretary/GovDecisions/2013/Pages/des708.aspx

1998; parker & Braithwaite 2011). One crucial facet of the recent and more open regard of regulation is the inclusion named "soft law". Although there are many types of regulation: command and control, auditing, incentive regulation, market based regulation, self-regulation, monitoring, risk management and so forth, one is able to make the distinction between "hard law" and "soft law". Whereas "soft law" is a wider group of mechanisms of control with the inclusion of unintentional and non-state process, "hard law" refers to standards and demands set by a public official, and are ordinarily backed by appropriate legal authority.

For assessing the Regulatory Budget within a state official budget, Selznick's definition is the closest one to the criterion since it regards regulation rather as a government activity than other and more openly definitions. In this study, the reference to regulation seems somewhat old school. Instead of adhering it to the governance approach and treating self-regulation, as well as to regulation network, hybrid models or third type party regulatory design (Levi-Faur, 2011), the most relevant approach to regulation regarding the assessment of the state's budget is that of regulation exercised by either the state itself or an external organization funded by the government.

Thus, the operational definition of regulation in this study is: **"hard law", or "soft law", having an effect or intending to have an effect on civil sphere, and is exercised by a state budgeted agency or by some executive. The act must be an act of intervention over other public or private pre-existing activity, excluding interventions of basic and essential functions of government.** This operational definition is impassive to the shapes and forms of regulatory activities while excluding regulators coming from outside of the state (non-budgeted). The fluid ingredient of this definition is thereby the distinction between essential and non-essential interventions: "basic and essential areas" vs. other non-essential interventions (improving, aiding etc.). This distinction is crucial and relevant as for drawing some line, not a clear line though, between regulatory activities and supplying other public goods and services.

Examples of obvious cases for regulation, which comply with this definition, include supervision of weaponry export accomplished by the Defense Ministry over private companies, formation of housing constructions standards made by the Housing Ministry, supervision of private nursery schools performed by a ministry. Evident examples of non-regulation are these: funding the infrastructure development of a new city, operating public schools, as well as military and foreign services. Another group of allocation, which does not befit in the framework of the regulatory

budget is all categories of monetary aid, including those of welfare, as well as economic aid (grants, funds etc.) for the private sector with the purpose of encouraging specific action.

2.2 Measuring regulation

For the sake of better understanding or estimating the scope of government regulatory, there are several possible approaches. One option is to focus on the nature of relationship prevailing between an agency and regulatory rules (Magat Krupnick & Harrington 2013; Selznick, 1985; Vogel, S. K. 1996), or to analyze the process of decision making made by the regulatory agency (Magat al, 2013). Another path is to use a more quantitative approach using the regulatory agency (Jordana & Levi-Faur 2005; Jordana et al. 2009), or the regulatory rule (Vogel, S. K. 1996) serving both as the unit of analysis, and as an indicator of the scope of regulatory activity. However, measuring a number of rules or agencies does not necessarily indicate the scope of regulation and may even be misleading indeed (Tramontozzi & Chilton 1987), as both might be a result of some political pressure or institutional interest, yet but contemporaneously it does not necessarily mean changing both agenda and priority of resource allocation.

Another approach for examining the scope of regulation survey is the cost or burden put on the regulated parties. Because most costs related to regulation are not in fact direct costs incurred by the government, but rather costs put upon the regulated parties (Levi-Faur, 2011), most of the theory and public attention have dealt with this facet of the mentioned equation. Literature concerning with the cost of regulation has either assessed the cost of regulation from the regulated sector perspective - compliance costs (Viscusi, 1992; Hopkins, 1993), the implementation of cost benefit analysis (CBA) (Sunstein, 2002; Radaelli& De Francesco 2007) or dealing with cost benefit analysis from a positivistic perspective (Adler & Posner ,2006).

Since CBA has a significant effect on different interests, there has been an evolving political and institutional debate over the usage and techniques of CBA. While critics of CBA mainly argue that it is a tool against the implementation of regulation, advocated by the regulated parties and their lobbies, one of the most frequent arguments which are in favor of CBA indicates that it enhances the transparency of agency decision making and serves as a rational process for policy decision making, counter-balancing behavioral bias (Shapiro, S, 2011). Over the last three decades, the tools of RIA and CBA were jointly diffused and became common in many countries. In the USA, it is common for the regulatory authority to publish the cost of compliance prior to the launch of a program is (Wegrich, K, 2011). The EU Commission on Smart Regulation has attended to the

issue of improving regulation since 2006 and has accomplished 443 impact assessments between the years 2009 - 2013, evaluating the costs and benefits of regulatory rules (Impact Assessment Board Report for 2013[5]). In Israel too, there has been an increased interest in the effects and efficiency of regulation. A government committee issued a report of its recommendations for increasing regulatory efficiency, coordination and effectiveness.[6] This step is partly due to the continued private sector criticism over the perceived addition of new regulatory burdens.

Nevertheless, the field of measuring regulatory activity lacks the necessary complementary perspective regarding regulatory activity, one that might permit assessing governmental preferences as those are reflected in the formal budget. Firstly, RIA and the CBA are both tools designed for reviewing individual cases. Even at those times they are used extensively, a complete picture of overall regulatory impact is yet absent. Secondly, the CBA and RIA discussion focuses on the costs to be paid by regulated parties, but such a discussion along with the same intensity has not focused on the government side costs. The EU for example, does regard the regulatory costs of a government, calling them "enforcement costs"[7] (Renda et al, 2013), however, this perspective does not clearly differentiate between the government costs and the private sector costs. Table 1 illustrates in general terms which demonstrate the difference between both sides of the regulatory costs by presenting some examples, to wit, government side costs may take form of: rule making costs, monitoring costs or enforcement costs while the cost for the regulatees are incorporated in directs compliance costs, reporting costs and indirect compliance costs.

[5] http://ec.europa.eu/smart-regulation/impact/iab/iab_en.htm

[6] The "Commission to streamline regulatory mechanisms in Israel to examine interactions between various regulators in economy" led by the Head of the National Economic Council and the government deputy legal counsel.

[7] As opposed to direct and indirect costs carried by the subject of regulatory rule.

Table 1: Types of Regulatory Costs		
The costs of Regulation – The Regulators Side		
Rule-making costs	Monitoring Costs	Enforcement Costs
Costs of information gathering, consultants, analysis	Costs of information gathering, analysis	Supervision, Evaluation costs of reports by the regulatees (sorting, classifying)
The costs of Regulation – The Regulatees Side		
Direct Compliance Costs	Reporting Costs	Indirect Compliance Costs
fees, complying standards by: changing, fitting product, service, and certification costs.	Administrative / paper costs.	Rise of market prices, time costs, and other market related impacts.

The only publication regarding the assessment of a regulatory budget is an annual report accomplished by the Weidenbaum Center at George Washington University by Susan Dudley & Melinda Warren - Sequester's Impact on Regulatory Agencies Modest. For nearly four decades, the Weidenbaum Center has published an assessment of the regulatory budget which reveals some interesting trends. The data demonstrates for instance that the overall regulatory budget increases at a steady rate and that those agencies which are funded, in measure partially, by fees put on the entities they regulate generally grow at a faster rate than those which depend on appropriations given from general funding (Dudley & Warren 2014). This report covers agencies whose regulations primarily affect private-sector activities, and excludes budget and staffing associated with regulations that govern taxation, entitlements, procurement, subsidies, and credit functions. Consequently, the aforementioned report owns difficulties when presenting the complete picture of regulatory costs. The 2015 report for instance, states that it does not include regulatory costs of an agency and that its most activity is non-regulatory as the Federal Budget lacks the details

(Dudley & Warren, 2014; p 2) needed to differentiate the regulatory part of the relevant budget rule. In addition, despite the relevant information and conclusions presented in the report, as well as its ability to highlight trends, it lacks the necessary methodological clarity and transparency. There is an absence of some discussion concerning a decision making process in preparing the analysis, as well as a discussion regarding the dilemmas, strengths and weaknesses of the model which are necessary for discussing the findings and implementing the method on other case studies.

2.3 Defining the Regulatory Budget

The definition of regulatory budget is the budget that is spent on regulation purposes by the regulator. Even though this is a fairly straightforward statement, the regulatory budget is considered complicated to assess and measure since it leans upon the definition of both elements: regulation as defined above, as well as a discussion of the budget definition, or more accurately, the resources spent for regulation by the state.

It is well known that any state has a variety of resources at its disposal, which appear in many forms. The most common resources are monetary resources raised by general tax revenue (VAT, income tax, etc.). There are other types of monetary resources such as fees, tolls, and tariffs. There are other types which may include interest payments and selling various kind of assets or products. A different group of resources is human resources. Although it is customary to report the number of an agency's positions in the official budget, these could not be considered as part of the general budget or any other monetary type of budget, and therefore it has analysis limitations, ones I will later describe. A state's budget is an inclusive budget coating all categories of resources that are commonly traded in monetary values, and yet the government can also operate via extra-governmental parties as for supplying civil product without the usage of official budget (Alesina & Perotti1997). This type of governance is usually bound to an expansion of regulatory activity enforced by the government in order to supervise the extra-governmental party. There is for example, an assumption that the government sets a goal for the establishment and operation of a new regional gas system as for having a contact with industrial areas. One way to achieve this goal is to allocate budget for an infrastructure government company; another way is to give an entitlement to a private company to install the gas system at its own expense and hence to collect fees from industrial consumers for using the network. Regarding the latter option, the government needs to allocate a certain budget to a regulator for supervising the private infrastructure company.

It is therefore crucial that one is aware of the different shapes of government expenditure while comprehending their alternatives.

2.4 Budget transparency and format

Assessing the full resources of the government through a governmental budget is usually difficult even for the educated reader due to several obstacles. While most of the budget allocations are generally clear, regulatory budget, most of all, is often in a mist (Von Hagen 1992; Von Hagen & Harden 1994; Alesina & Perotti1997; Levi-Faur, 2011). The absence of transparency may be of interest to both politicians and bureaucrats, it has concurrently a serious negative effect on democracy (Ben Basat & Dahan, 2006). Von Hagen & Harden show that budget arrangements vary widely among EU countries with the inclusion of the degree of transparency of the budget (Von Hagen & Harden 1994). Alesina & Perotti indicate that when dealing with political interests, secretive accounting are used as for hiding the real balance while keeping various items f budget by using organizations which are not accounted for in the national budget (Alesina & Perotti1997). Ben Basat & Dahan specify three methods used by the bureaucratic level to reduce the budgets transparency: for making optimistic analysis, preventing the establishment of necessary information on the current and future situation and creative accounting (Ben Basat & Dahan, 2006). All these three methods affect the process of decision making when the approval of the budget is concerned, but the latter two methods are especially relevant when discussing the difficulties of analyzing a prevailing budget.

Although literature has intently explored budget design and transparency implications throughout economic, political and institutional perspectives, there is barely any research surveying the micro-institutional or technical aspects of budgets, namely the budget's format, the number of categories, number of rules etc. With regard to the absence of organized information, I assume that every sovereign state's budget includes most often at best a document that states issues such as budget goals, main changes and programs. In addition to the document, the actual budget is a database, which specifies the budget's rules, and is integrated according to organizational index. Each budget rule specifies at least three main facts as the below:

1. The organizational unit that can use the budget;
2. The purpose of the budget;
3. The size of the budget assigned for the purpose.

This minimal data makes it possible to commence constructing a methodology for regulatory budget analysis, as is described in chapter 3.

Chapter 3: Methodology for the Analysis of State's Budget

This part of the research aims to develop a reliable, transparent and replicable method as for determining the regulatory budget of states based upon budget books.

3.1 Challenges

There are two main challenges for forming methodology to assess regulatory budget. The first one is an absence of a substantial comprehension upon the term "regulation" and its exact boundaries. The second challenge is the prevalent difficulty to pull out regulatory activities from within the budget books and thereupon assess their costs. Both challenges establish a discretion problem – the problem of selecting accurately and proficiently when comparing regulatory activities to non-regulatory activities.

As described above, public officials more than tend to evaluate the regulatory cost of an individual rule as part of rule impact assessment, which is generally performed before the approval, and implementation of regulatory policy. However, this ex-ante approach is problematic *"due to the fact that legal rules are most often implemented and enforced at the national, regional or even local level, with different modes, cost levels, productivity, etc."* (Renda et al., 2013). Furthermore, nearly no scholarly publication deems governments regulatory costs as a whole (as opposed to the assessment of individual rules).

Considering Formal Government Regulatory List (Book)

One optional manner for the mentioned assessment could be relaying on a formal governmental regulators list. Choosing this manner enormously simplifies the burdensome hurdle of differentiating between regulatory activity and non-regulatory activity when one eliminates the discretion problem. Coincidentally, relying upon a formal regulatory list has a few considerable disadvantages. The first, which arises immediately, is the problem of accuracy as one of the components within the list. On hand, the list does not necessarily include all the relevant regulatory functions, but on the other hand it might include redundant items. If a government official wrote down the list, it is probable that the list was made in accordance with a predefined conception of regulation, which does not necessarily and entirely encircle regulatory activity. The Israeli list of

regulators (Israeli Regulators Book), for instance, was mandated by a government resolution[8]. Another accuracy problem might emerge from the author's bias, position or might be found in a political or institutional context. It is most likely that this context, in a non-objective fashion, influences upon the content of a list (or a book). The regulators who are included in the Israeli Government Regulators Book are committed to prepare a five-year scheme for a regulation reducing as well as preparing a Regulatory Impact Assessment (RIA) for some new regulation[9]. These commitments or benefits may bring about either a current list or a future one to be short of certain regulatory activities due to institutional interests. A second problem stems from the first depicted problem mentioned above, namely, that each government defines and lists regulators in a different manner. This absence of standardization undermines our understanding of regulatory activity. In theory, this problem might be solved if a supranational organization would have serve as a guide to governments, and would have keep standardization for regulatory definitions and recognized regulators lists. The third problem as for using a regulatory list prepared by the government is technical in its nature. A government's budget usually has a specific structure and it does not precisely overlap the regulators list, which does not include budget information. Some regulators' budgets are either included in wider budget rules or are divided into several budget rules. The latter case, in which there is a budget format that separates between main activities (amongst them easily identified regulatory activities) and overhead costs (logistics, management, etc.) that are presented as a general sum, focusing upon the regulators budget without their overhead costs,[10] is indeed insufficient.

3.2 Classification and Coding method Overview

In a field with no systematic rules for analyzing data, the researcher should employ a non-linear analysis method (Krippendorff, 1989; Elo & Kyngäs 2008). The meaning of this is changing the strategy of analysis and coding throughout the research process, and repeatedly reviewing the results due to the inclusion of new insights to wit, an inductive approach. In spite of the aforementioned, literature does suggest several core methodological steps: conceptualizing, coding and processing (Krippendorff, 1989; Elo & Kyngäs 2008). The first phase is to

[8] Government decision number 708 – 08.25.2013.
http://www.pmo.gov.il/Secretary/GovDecisions/2013/Pages/des708.aspx
[9] Government decision number 2118 – "Reducing the regulatory burden", 10.22.2014.
http://www.pmo.gov.il/policyplanning/Regulation/Documents/dec2118.pdf
[10] such as government real estate (for offices), transportations, HR department, bookiping, cleaning, etc,

understanding a phenomenon, or to be more precise, conceptualizing a phenomenon in the clearest possible way, meaning here, answering the question of 'what is regulation?' The second phase is to go through the coding process, and then choose and categorize regulatory and non-regulatory. The final stage is aggregating the data and consequently reporting the results. The first phase was described above; the third phase will be presented and discussed in chapter 5, and I will discuss the second phase of the process below.

Coding process

Content selecting and coding is a problematic issue in those cases in where there is too much text and/or not sufficient time to discuss each coding resolution .The solution for the said issue is to establish a systematic approach of analyzing (Mikhaylov, Laver & Benoit, 2008). When one has to deal with content selecting, it is necessary to measure the extent to which independent judges would make the same (or different) coding resolutions in particular and different resolutions in general. People might be affected by some noise or even bias being introduced by the content analysis procedure. Different people at the same time or the same coders at different times are likely to experience an absence of consistency. Tinsley and Weiss (1975, 2000) note that the more specific term for the type of consistency required in content analysis is an inter-coder or an inter-rater agreement. In contrast to reliability analysis, which is based on the variance or the degree of deviation from the original meaning, different judges examine inter-coder agreement measures only the extent of identical resolutions. Inter-coder reliability is used in the fields of communication research, marketing research, public information campaigns, and psychology. In mass communications research, it is rarely measured properly (Lombard, Snyder-Duch, Bracken; 2002).

The first task is to characterize problems regarding reliability and bias in the research procedure, and the second one is to minimize their effects. Krippendorff (2004, 214) identifies three types of reliability: stability, reproducibility, and accuracy. Stability sees to the possible change of coding results on repeated trials. At most cases, stability problems mainly arise for two distinct reasons: firstly, the size of the sample/content, and secondly the consistency of the sample/data. The larger the sample is, the higher the chance for an error made by a human coder. Additionally, if the data is inconsistent in its nature (being compiled from different sources, multiple categories or varies in general), it will be more challenging for the coder to adjust their coding accordingly.

A stronger measure of reliability is reproducibility, also called inter-coder reliability. This measure assesses the degree of replication of coding results by two distinct coders which work separately. It covers intra-coder disagreement and inter-coder differences of interpretation and application of the coding scheme. Different raters could have different tendencies, and assuming each of them is consistent, the results might reflect two parallel results lines. There are fairly a few ways of handling the first order problem, including a "calibration pilot" on which the two raters analyze the same sample and compare the results several times until there is some low difference of decision classification (Lombard, Snyder-Duch, Bracken; 2002). A panel of world experts of coders could also encounter a disagreement situation regarding the content at question. In this research, there is no such problem since there is only one rater. Kolbe & Burnett argue against a researcher who is also a coder because he weakens the independent judicial argument (Kolbe & Burnett, 1991). Others claim that there is an obvious distinction between coding schemes for which the coders need to have a prior knowledge regarding the subject, namely, a professional coder and schemes performed by non-specialist coders (Perrault & Leigh, 1989). Another concerning problem is the issue of accuracy. Accuracy tests the conformity of coding process and data generation procedure with accordance to some canonical standard, and is perceived as the strongest test of reliability (Krippendorff, 2004 in Mikhaylov, Laver & Benoit, 2008). The more the area of knowledge is detailed and surveyed, the greater is the potential for meeting the accuracy goal.

3.3 Classification and Coding suggested Methodology

The methodology developed here has five main steps:

Step one – Collecting data and the systematic organization of the data

Step two – Building the coding scheme

Step three – Identifying Regulation (distinguishing regulation from other actions)

Step four – Dealing with classifications gaps

Step five – Accounting for uncertainty

The following includes both a theoretical description of the developed methodology and application for a case study 2014 of the Israeli budget.

Step one – Data Sources and Preparation

If we seek to conduct a successful classification scheme, it is crucial to be possessed of an organized and understandable database. As it was mentioned above, even though there is some improvement concerning accessibility and transparency, there are various problems with regard to public budget databases. Preparing the data for analysis entails the following procedures. Firstly, understanding the scope of a budget list/file and what it either includes the necessary items or lacks them. Preferably, it includes all government expenditure, consisting of ministries, agencies, debt, and pensions. Let me emphasize that the 2013-2014 approved Israel's state budget, (available in Microsoft Excel format[11]) is the database for this study. Secondly, it is important that the budget holds pre-existing breakdown in several levels, by several elements: organizational unit, sub-unit, rule description and expenditure/revenue, as for achieving maximum accuracy when using the effort of classification. It is essential to have at least four levels of organizational breakdown: agency/ministry, division/major department, sub-department and purpose. The U.S.A Federal Budget, for example, has four major levels of breakdown: Agency, Bureau, Account and Sub-Function, and there are three additional technical levels[12]. The 2014 Israeli Budget is comprised of four levels of categories. The first level is a clause, which usually specifies the main organizational unit, that is, a government office or an agency. The second one is a field, which can be either a sub-organizational unit or a general function within the boundaries of the organization specified in the clause. The third level is a program, which similar to the field can be either a function or a smaller organizational unit. The fourth and most detailed level is a rule ("Takana" in Hebrew) which specifies the exact purpose of the outlay. Every rule has a matched sum of money.

[11] http://www.mof.gov.il/BUDGETSITE/STATEBUDGET/BUDGET2013_2014/Pages/Budget2013_2014HP.aspx

[12] The three levels are BEA Category (Budget Enforcement. Act) which specify for mandatory / non-mandatory / net interest, Grant/non-grant split and On- or Off- Budget

Table 2: Israel Budget 2014 – Descriptive statistics				
Level of break down in the Israeli 2014 budget data	Total Number of items	Total number greater than 0	Total spending number greater than 0	Average spending budget (in thousands of NIS) /transfer to millions)
Clause	63	60	59	7,219,370.93
Field	471	265	217	1,962,870.44
Program	1,468	729	670	635,735.65
Rule	13,911	4,765	4,637	91,857.42
U.S BUDGET 2014[13] - Descriptive statistics				
Agency	224			
Bureau	486			
Account	3307			
Sub-function	81			
Total Number of Budget rules	4,966			

As much as there are budget rules in an annual budget, the more accurate the assessment would be. If there were a limited number of budget rules, it would be harder to extricate the regulatory expenditure out of other government functions. In addition, one of the levels of breakdown should specify not only the entity who can spend the budget but also what the budget is used for; without these details, it would be extremely difficult to determine whether a budget rule is a regulatory expenditure. Prior to the actual analysis, the database should be filtered from irrelevant elements such as double and identical rules, nullified rules, and income/revenue rules. Clearing all the irrelevant rules contributes to the accuracy and the reliability of the coding procedure, as described at step five. As demonstrated in the aforementioned table 2, subsequent to the clearing of unnecessary rules, there are 4,637 relevant rules in the Israeli Budget of 2014 which is inexplicably similar to the American Budget (4,966 rules).

Step two – Building the coding Scheme

[13]The U.S. Government Printing Office (GPO) website http://www.gpo.gov/fdsys/browse/collectionGPO.action?collectionCode=BUDGET

It is necessary to select the unit of analysis when beginning with the preparations of coding (McCain 1988, Cavanagh 1997, Guthrie *et al.* 2004). It goes without saying that the unit of analysis in a regulatory budget is a budget rule. The coding scheme is a categorical one and quite plain: the basic categories are binary, namely, "o" for non-regulatory budget and "1" for regulatory budget. In addition, there are two aiding categories: "2" for unknown article, intended for either incorrect or insufficient data, or "3" for the usage of identifying budget rules with varied purposes, regulatory and non-regulatory.

Table 3: Regulatory budget coding categories		
Code	Definition	Example
'0'	Non-regulatory rule	Teachers' salaries
'1'	Regulatory rule	Natural gas agency
'2'	Undetermined	"Activities"
'3'	Partly regulatory rule	Vehicle and transportation

Step three - Conducting the Classification

The core of analysis is conducting the classification, to wit, implementing the coding scheme in the budget database. Each rule and agency are separately classified and coded according to their title or the title of their higher order-category: program/field/clause. The first level of selection is at the agency level, which determine according to the concept of regulation, whether or not it has potential for regulatory operation. While it holds true that there are some independent agencies which are devoted solely to regulation, such as the Natural Gas Agency, one should notice that in the main ministries, the regulatory functions can sometimes be identified only at the sub-department level or even at the level of single employees who are in charge of a small regulatory function. In the Ministry of Construction and Housing for instance, there is a planning and engineering department holding 32 full time positions, which devote approximately 20% of their time to regulation. If indeed the agency is purely regulatory-oriented, then all the budget rules under the same category are classified "1". A pure non-regulatory agency is classified "0" and The Ministry of Foreign Affairs is one example for this statement. Other organizations demand a more detailed analysis at lower levels of the budget categories. The majority of agencies do not have a

unified function but rather varied goals, missions and operation. Therefore, a second level of selection is needed, one which consists of exploring sub-departments missions and goals. It was similarly done with a classic content analysis - selecting the unit of analysis, namely, a word or words appearing in the title of the organizational unit - "regulate", "supervise" "inspect" and their various forms. If the unit of analysis exists in the sub-department task or name, and the organizational unit is sufficiently homogeneous, (for example – the Consumer Protection and Fair Trade Authority in the Ministry of Economy), at that instant the entire organizational unit (sub-department) is coded for regulation (1). If the organizational unit is not homogeneous, but rather consists of a variety of purposes, a third level of selection is then held; classifying each rule and coding them accordingly. Some rules contain the unit of analysis and yet are not purely regulatory. In these cases, the relative proportion of the unit of analysis within the entire organizational unit's task and operations should be evaluated. The regional health office for instance is a division in the Ministry of Health which has a non-regulatory activity which provides health services for individuals, as well as regulatory activities supervising the health standards in restaurants in their region.

Step four – Dealing with classification gaps:

With regard to some rules, the purpose for expenses is meant for both regulation and non-regulation. These rules are generally found within an agency that both regulates and provides goods/services. These rules might be classified under: "general and management", "IT", "human resources", "logistics", "reserves", "total salaries" etc. These rules were coded "3" and would later be multiplied by what I call the agency regulation ratio. I define "agency regulation ratio" as the ratio of regulatory positions (equivalent full-time jobs) to total positions in the same agency. As the ratio is eventually used for budget assessment, the calculation should take into account variance of different costs of two groups: regulatory and non-regulatory positions.

$$\frac{Jr}{J} * (\alpha HR + \beta FA + \gamma LOG\&IT + \cdots) = AGr$$

Jr – Number of equivalent full-time regulatory positions in an agency;

J – Total number of equivalent full-time positions in an agency;

HR – Budget for human resources in an agency;

FA - Budget for facilities in an agency;

LOG&IT - Budget for logistics & IT in an agency;

α – Ratio of regulation salaries and benefits given to non-regulation salaries and benefits;

β – Ratio of regulatory usage of facilities to non-regulation usage of facilities;

γ – Ratio of regulatory usage of logistics and IT to non-regulation usage of logistics;

AGr – Agency Regulatory ratio.

The result of the mentioned described calculation is rather an estimate and not an exact number. This calculation assumes that, on the average, the regulatory positions have the same costs as non-regulatory positions: salaries, benefits, facilities usage etc. (meaning $\alpha, \beta, \gamma = 1$). However, when it is possible, it is worth identifying the agency/ministry characteristics and adjusting the ratio accordingly. If on average for example, a regulatory position cost is 50,000$ per a year while a non-regulatory position cost is 40,000$ per a year, then $\alpha>1$ (0.8, assuming 50% regulatory positions).

For rules coded "2" (undetermined), a further investigation is held in order to clarify their meaning. In the Israeli case, two sources opened to the public were examined. Firstly there was formal information concerning the organization's purpose on the organization's website. Government agencies tend to not always present information regarding their activities in a manner of unity and accuracy. Fortunately, the Israeli government operation website "mimshal zamin" (i.e: accessible government) within the Ministry of Finance, and the ICT (i.e. information, communication and technology) have issued a directory of government web application standards, mandating certain requirements for the content on governmental sites. Each government website must include the below: general information including structure and sub-departments as well as description of responsibility fields, services and review of major activities. The 2013 annual report of "Available Government", the government websites received a very high score of compliance with the mandatory content category.[14]

[14]The average score for service agencies got an was 14.57 out of 15, while management and Staff agencies scored an average of 18.51 out of 20 points.

Secondly, Additional information may be collected from the detailed budget documents, published by the agency that is responsible for preparing the budget of each agency. In Israel, the Ministry of Finance publishes a written report on the main policies of the state budget. The report is circulated among the parliament members for their review and approval. Unfortunately, this report offers no clear explanation for each budget rule; instead, it describes in general terms the goals and main outlays for each government office or agency. Furthermore, there is no clear distinction in either format between the ongoing and new programs. Eventually most rules that were coded "2" should have been recoded "0","1" or "3". The total regulatory budget is the sum of all the rules coded "1" and those which are coded "3" multiplied differentially by the regulatory ratio of each agency.

Step five - Accounting for uncertainty:

Data analysis is subject to two major types of uncertainty: errors and discretion. Errors could accrue at any stage of the analysis. Firstly, there could be technical errors in the budget itself; errors made by the public official that published the data. Secondly, there could be errors of data organization – incorrect copying, omission of sections, double reference to the same rules, etc. Dealing with information in a digital format, using atomized function and searching for defects would significantly reduce the errors as opposed to using hard copies, manual typing etc. The second category of uncertainty is discretion. The coding system described above is conducted by a subjective judge who is dissimilar to common content coding scheme, in where an independent coder is coding a sample based on a preset of objective rules. This method has several methodological problems as mentioned above: stability, reproducibility, and accuracy.

As can be noticed in this study, the sample is large (14 thousands rules). Therefore, measures were taken for the sake of increasing stability. Firstly, the list was reduced barely to the relevant rules (as described in step one above). Secondly, an initial classification was performed over 62 major categories, in some of which it was possible to classify uniformly, namely, the same code was used for the entire rules made under a specific major category. Throughout the remaining sample, the process of classification was held twice; the second round of classification was performed in a different order, for minimizing the accumulation of a biased-trend effect.

Alongside the first level coding, a parallel coding was held in order to calculate the discretion effect to some extent, on regulatory budget for the reliability issue. I analyzed the extreme cases

by valuing the high and low ends that comprise the discretion range margin of error. This means performing a second level coding scheme, designed for classifying the level of discretion and uncertainty within the initial coding procedure.

Table 4: Documenting Discretion in coding categories			
Code	Definition	Examples for regulatory budget	Examples for regulatory budget
'0'	Very low level of discretion	Health supervision over restaurants	Hospital operations
'1'	medium level of discretion	surveys for the Ministry of Environmental Protection	Structural organizational change at the ministry of economy
'2'	high level of discretion	Regional planning for new housing.	Funding health research

Rules coded with assumed high level of certainty - low level of discretion were coded "0" (coded either as regulatory or non-regulatory). Rules coded with medium level of discretion were coded "1", and rules coded at high level of discretion were coded "2'.

As for calculating the discretion effect, it is crucial to add or deduct the budget rules coded 'medium' and/or 'high' discretion regarding the original assessment. In as much as the low end of the discretion range, one should remove from the initial assessment of the "non-regulatory" budget the "un-known", "Regulatory", and "Mixed Purposes" rules. While it is highly improbable that a rule classified as “Mixed Purposes” is in fact entirely regulatory, it is yet essential to remove these rules as for reaching the full range of a possible error. At the other end of discretion range, the prevalent method is to add rules originally classified as: "non-regulatory", "unknown" and "mixed purposes".

$$LESRB = -B-C-D$$

$$HESRB = A+B+D$$

LESRB - low-end of supplementary regulatory budget

HESRB - high-end of supplementary regulatory budget

A – **Rules originally classified as Non-regulation**

B – **Rules originally un-known**

C – **Rules originally classified as Regulation**

D - **Rules originally classified as Mixed Purposes**

The margin of error is the sum of the absolute values of both supplementary budgets:

$$|-B-C-D| + |A+B+D| = \text{Margin of Error}$$

Chapter4: Results.

The following findings reflect the implementation of the methodology presented in chapter 3 regarding the 2014 Israeli budget. This chapter presents the results in the below order: regulatory positions, regulatory budget and assessing margins of errors.

4.1 Israel's Regulatory Positions

As aforementioned discussed the quantity of regulatory positions (equivalent full time positions) serves as an indicator of regulatory activity in an agency. Table 5 presents the regulatory positions percentage (RPP) of each agency. Upon the examination of 40 organizational units, 11 were assessed as staffed by 100% regulatory positions, 25 units had some regulatory positions and the rest had no regulatory function. See table 5 for the entire list. The total number of regulatory positions is 10,978.9, which is 8.6% of the total positions in the government.

Table 5: Regulatory Positions Percentage (RPP) by Category
2014 Israeli Budget

	Category	Number of Positions	Regulatory Positions	Percentage of Regulatory Positions	Comments
.1	Population and Immigration Authority	1,643.0	1,643.0	100.0%	
.2	Ministry of Health	1,267.0	1,267.0	100.0%	Total positions includes office staff, labs, Standards Institute and inspection, Institute for Road Safety and does not include personals in government health institutions.
.3	Israel Land Authority	751.0	751.0	100.0%	
.4	Ministry of Environmental Protection	579.0	579.0	100.0%	
.5	Supervision Agencies	335.0	335.0	100.0%	Electricity Authority , Antitrust, SEC (Israel Securities Authority)
.6	Ministry of Science, Technology and Space + Ministry of Culture and Sport	187.0	187.0	100.0%	
.7	Ministry of National Infrastructures, Energy and Water Resources	184.0	184.0	100.0%	Total positions include office staff and do not include independent institutions.
.8	Ministry of Communications	151.0	151.0	100.0%	

.9	Earth Science Research Administration	117.0	117.0	100.0%	
.10	National Road Safety Authority	70.0	70.0	100.0%	
.11	Ministry of Transportation	1,080.0	1,003.0	92.9%	Include all positions except: Meteorological Service
.12	Water Authority	208.0	176.0	84.6%	Includes all positions except: Aid Department and Sewage Infrastructure Administration
.13	Ministry of Interior	1,037.0	663.0	63.9%	Included: all except Department for Religious Communities and "Pesach"
.14	Ministry of Agriculture	704.0	444.0	63.1%	
.15	Ministry of Education	2,046.0	1,289.0	63.0%	Total positions include office staff and does not include teaching personnel, Independent Education Center and Rural Education Administration
.16	Veterinary Services	285.0	177.0	62.1%	Does not include: Veterinary Institute, Veterinary Research
.17	Ministry of Economy	1,269.0	567.0	44.7%	Does not include the Israeli Standards Institution (1079 positions). Only 3% of the institution's budget comes from the government's budget.
.18	Ministry of Public Security	168.0	49.0	29.2%	Total positions do not include: Firefighting and Rescue, Prison Service, Israel Police
.19	Ministry of Justice	3,442.0	742.0	21.6%	
.20	Ministry of Finance	1,069.0	138.0	12.9%	Included: The Capital Market, Insurance and Savings Department Not Included: Tax Authority
.21	Prime Minister Office	1,096.0	104.0	9.5%	Includes the Chief Rabbis, The ministry of Religious Services and Kashrut Regulations
.22	Ministry of Social Affairs and Social Services	2,932.0	242.5	8.3%	missing data from several districts - assessed according to existing data
.23	Ministry of Construction and Housing	607.0	32.4	5.3%	Includes: Registrar of Contractors, 20% of the Planning and Engineering department and Information and Economic Analysis Department
.24	District Health Offices	2,085.0	68.0	3.3%	possible poor reliability of data
.25	National Insurance	3,532.0	-	0.0%	
.26	Ministry of Foreign Affairs	2,086.0	-	0.0%	
.27	The Knesset (Parliament)	1,025.0	-	0.0%	

.28	Agricultural Research	734.0	-	0.0%	
.29	State Comptroller	528.0	-	0.0%	
.30	Ministry of Aliyah and Immigrant Absorption	466.0	-	0.0%	
.31	Survey of Israel	246.0	-	0.0%	
.32	Ministry of Tourism	215.0	-	0.0%	Missing data: number of positions at the: Department of inspection and complaints and Hotel Registration Department
.33	National Security Council	64.0	-	0.0%	
.34	President of The State	61.0	-	0.0%	
.35	Members of Government	23.0	-	0.0%	
.36	Elections and Party Funding	8.0	-	0.0%	
.37	Atomic Energy Commission	-	-	0.0%	
.38	Ministry of Defense	50	-	0.0%	Included just AFI - Exporters Supervision Division - Missing data, discretion assessment of 50 positions
.39	Commission for Equal Rights	-	-	0.0%	
.40	Development of Transportation	-	-	0.0%	
	Total	130,005.0	10,978.9	8.6%	Total positions does not include retired / pension

For the RPP calculation, the base for total number of positions was selected to include only the central office personnel, and not service givers such as nurses and doctors (Ministry of Health) or teachers (Ministry of Education), who account for the vast majority of positions in the category. This adaptation was essential since the RPP is next used for calculating regulatory budget of mixed purposes budget rules (as discussed in article 3.3 – step four) such as generals and administrative, government real estate, vehicles etc.

4.2 Israel's Regulatory Budget

In 2014, the assessed Regulatory Budget was NIS 6,048,054 , which is 1.4% of the total approved budget. The central government's approved budget was NIS 425,940,885 and the Non-Regulatory Budget was NIS 419,369,109. As for the total database, only NIS 523 Million were not classified as regulatory/non-regulatory (0.1% of total budget).

Table 6: Israel 2014 Regulatory Budget (Thousands of NIS)					
Category: Office/agency/other	Total expenses Budget	Non-Regulatory Budget	Total Regulatory Budget	Percentage of Regulatory Budget	Unclassified Budget
Central Government	₪ 425,940,885 ($ 122,714,170)	₪419,369,109 ($ 120,820,832)	₪6,048,054 ($ 1,742,453)	1.4%	₪523,722 ($ 150,885)
Numbers in parenthesis are in U.S.A dollars according to the official exchange rate of 12/31/2013.					

The Regulatory Budget coded "1" refers to rules in the budget, which were directly assessed as entirely, bound to regulation. These rules add up to NIS 2.4 billion that are 0.4% of the total government budget. Rules which have both regulation and non-regulation (coded "3") purposes add up to NIS 27.7 billion, of which NIS 3.6 billion were indirectly assessed as bound to regulatory purposes. Summing up the direct and indirect cost of regulation comprises NIS 6.0 billion.

Table 7: Israel 2014 Regulatory Budget – direct/indirect assessment (Thousands of NIS)		
Category: Office/agency/other	NIS	% of total budget
Mixed Budget rules (Coded – "3")	₪ 27,784,098	
Indirect regulation assessment*	₪ 3,632,470	0.9%
Direct Regulatory Budget (Coded – "1")	₪ 2,415,584	0.4%
Total Regulatory Budget	₪ 6,048,054	1.4%
*Extrapolation of Regulatory Budget from mixed rules		

4.3 Regulatory Budget by Budget Categories

The data presented in table 8 shows the government's regulatory expenditures by the major official budget categories**.** Only 26 categories out of 62 (42%), were assessed as containing regulatory operations.

The major regulation categories in terms of budget size are the Ministry of Education, General Budget reserves, Ministry of Health as well as Population and Immigration Authority. Since General Budget Reserves have no distinct attribute, the regulatory portion of this category is assumed to be the overall RPP – 8.6%, as presented in table 7. There is not a single category or a group of categories that stand out from the rest of the categories in terms of regulatory budget. Instead, over the 26 categories with regulatory budget, the regulatory budget sizes are spread evenly from NIS 883 million (Education) to only NIS 2 million (Housing).

The categories holding the highest percentage of budget bound to regulation out of total budget are: Ministry of Communications, Population and Immigration Authority, Ministry of Transportation, Supervision Agencies and Water Authority – all of which above are 80% of their budget for regulatory purposes.

Table 8: Regulatory Budget by Budget Categories
(Thousands of NIS)

	Regulatory Budget	Total Approved Budget	Percentage of Regulatory Budget (out of category's budget)
Ministry of Education	883,856	53,035,849	1.7%
General Budget Reserves*	630,348	7,308,385	8.6%
Ministry of Health	743,358	24,069,502	3.1%
Population and Immigration Authority	514,728	514,728	100.0%
Israel Land Authority	474,783	6,922,700	6.9%
Ministry of Transportation	409,046	455,940	89.7%
Ministry of Economy	291,286	3,699,006	7.9%
Supervision Agencies	285,175	315,278	90.5%
Ministry of Interior	245,921	376,821	65.3%
Ministry of Justice	248,082	2,945,922	8.4%
Ministry of Environmental Protection	253,447	329,351	77.0%
Ministry of Agriculture	193,884	563,486	34.4%
Ministry of Finance	143,649	2,229,367	6.4%
Ministry of National Infrastructures, Energy and Water Resources	123,313	213,054	57.9%
Water Authority	87,793	100,075	87.7%

Government Real Estate	68,492	818,111	8.4%
Ministry of Science, Technology and Space + Ministry of Culture and Sport	84,042	1,133,704	7.4%
Ministry of Public Security	59,625	13,750,240	0.4%
Ministry of Communications	55,903	55,903	100.0%
Ministry of Defense	50,000	50,984,027	0.1%
Other Development Expenses	49,082	3,406,051	1.4%
Water Factories	53,622	1,266,635	4.2%
Ministry of Social Affairs and Social Services	39,289	5,642,136	0.7%
Prime Minister Office	47,118	2,318,623	2.0%
Ministry of Construction and Housing	10,145	191,067	5.3%
Housing	2,068	1,469,458	0.1%
State Revenue	-	-	0.0%
President of The State	-	40,341	0.0%
The Knesset (Parliament)	-	612,921	0.0%
Members of Government	-	-	0.0%
Ministry of Foreign Affairs	-	1,642,724	0.0%
National Security Council	-	40,124	0.0%
State Comptroller	-	365,569	0.0%
Pension and Compensation	-	15,005,776	0.0%
Different Expenses	-	4,949,075	0.0%
Elections and Party Funding	-	142,731	0.0%
Civil Emergency Expenses	-	316,081	0.0%
Coordination Activities in the Territories	-	108,437	0.0%
Local Authorities (local government)	-	3,489,617	0.0%
Benefits for the disabled	-	3,388,710	0.0%
National Insurance	-	30,749,598	0.0%
Ministry of Aliyah and Immigrant Absorption	-	1,419,558	0.0%
Various Subsidies	-	7,022,578	0.0%
Atomic Energy Commission	-	147,927	0.0%
Ministry of Tourism	-	226,026	0.0%

Support Sectors of the Economy	-	2,580,764	0.0%
Construction and Housing grants	-	2,064,600	0.0%
Survey of Israel	-	93,524	0.0%
Payment of Interest and Fees	-	41,745,000	0.0%
The Discharged Soldiers Law	-	2,214,758	0.0%
Development Ministry of Defense	-	610,776	0.0%
Justice and Courts	-	106,863	0.0%
Treasure	-	-	0.0%
Commission for Equal Rights	-	-	0.0%
Education	-	1,881,283	0.0%
Industry	-	39,210	0.0%
Tourism Development	-	490,693	0.0%
Development of Transportation	-	12,416,274	0.0%
Payment of Debts	-	96,862,000	0.0%
Prime Minister's Office Works	-	400,923	0.0%
Government Hospitals	-	10,609,011	0.0%
Hadera Port	-	41,994	0.0%
Total	**6,048,054**	**425,940,885**	**1.4%**

***** General budget reserves regulatory budget was assessed by multiplying the total reserves budget by the general regulatory positions percentage.

Table 8 and Table 8.1 (10 largest budget categories) demonstrate no correlation between a category's total budget and a category's regulatory budget. Out of the top 4 different regulatory budgets, for example, their total budget varies between 54 billion (Education), 7.3 billion (Reserves), 24 billion (Health) and only 0.5 billion (Population and Immigration Authority).

Table 9: Regulatory Budget by Budget categories
(Thousands of NIS)

	Total Budget	Regulatory Budget	Regulatory Budget percentage (out of category's budget)
Payment of debts	96,862,000	-	0.0%
Ministry of Education	53,035,849	883,856	1.7%

Ministry of Defense	50,984,027	50,000	0.1%
Payment of interest and fees	41,745,000	-	0.0%
National Insurance	30,749,598	-	0.0%
Ministry of Health	24,069,502	743,358	3.1%
Pension and Compensation	15,005,776	-	0.0%
Ministry of Public Security	13,750,240	59,625	0.4%
Development of Transportation	12,416,274	-	0.0%
Government Hospitals	10,609,011	-	0.0%

Figure 1-A show cases of the Regulatory Budget according to the size of organizational unit. It illustrates the fact that most organizational units (agencies/ministries) own small budgets as well as small regulatory budgets. Organizations having relatively large regulatory budget are small in terms of overall budget with the inclusion of one or two ministries, which have a large overall budget – The Ministry of Education and The Ministry of Health. Due to the wide spread of ministries over the diagram and a numerous units holding smaller values, figure1-B presents the same axes on a smaller scale.

Figure 1: Regulatory Budget by size of organizational unit (large budgeted agencies)

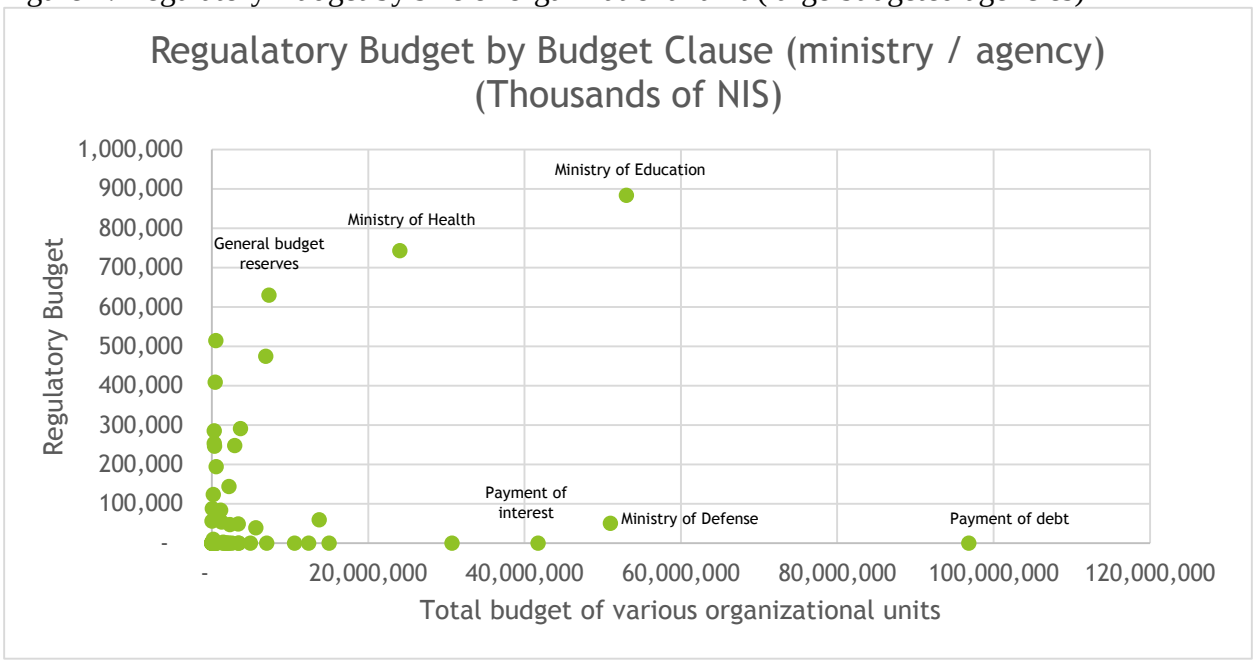
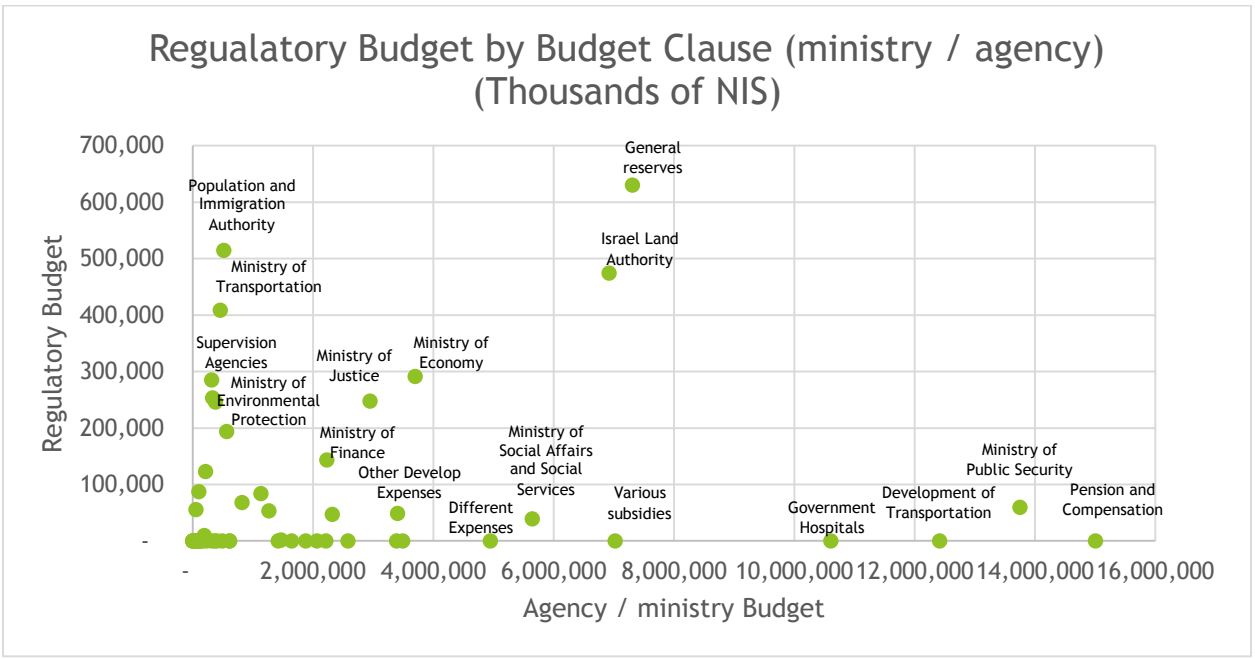
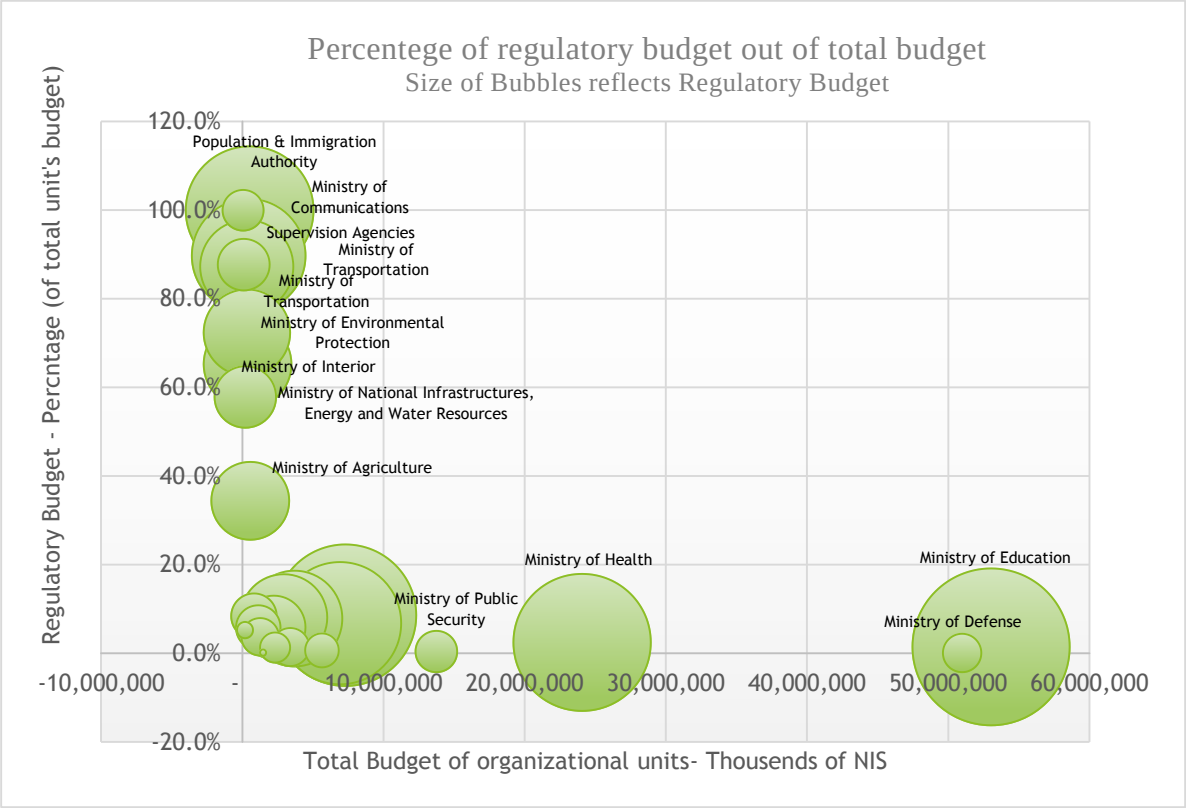


Figure 2: Regulatory Budget by size of organizational unit (small budgeted agencies)



As shown in figure 2 below, the organizational units holding high regulatory budgets have small total budgets. Small organizational units are scattered all over the regulation percentage axis. The entire data shows no correlation between the size of a total agency budget, regulatory budget percentage within the agency and total regulatory budget.

Figure 3: Regulatory Budget percentege by organizational unit



I shall now depict regulatory budget of selected categories/ministries as for providing better understanding of the estimation process via complex organizational structure. Adequate account is detailed throughout appendixes 2 and 3.

The largest regulatory budget applies to the Ministry of Education, (with the inclusion of higher education). Together, this ministry establishes the largest budgeted category in the budget subsequent to debt payment. Each rule was coded and then multiplied by a relevant factor: 100% for a regulatory budget, 0% for a non-regulatory, or 63% for the mixed purposes rules which represent the agency regulatory percentage (calculated according to the agency ratio of regulatory positions) as for accounting the overhead expenses. Out of the 573 budget rules, 14 rules were coded as regulation, which accounts for NIS 347 million. The main rules are: Inspectors Supervision and Guidance, Actions of The National Authority for Measurement and Evaluation and Monitoring student truancy. Another 56 rules were coded as mixed proposes – additional NIS 505 million, of which the main rules are: Administrative staff, Adjusting the Education System, Reserves for different actions, Vehicle Maintenance and Travel, and Rent Participation.

In contrast to the aforementioned, The Ministry of Defense's budget, which is the third largest after succeeding debt payment and education, has a much smaller regulatory budget. Since the Ministry's operations are less accessible to the public, the regulatory budget assessment was performed in a unique fashion based on acquired knowledge. While both education and defense have similar budgets – around NIS 50+ billion, the defense budget incorporates only 34 budget rules as opposed to 573 rules relating to the education budget. Consequently, it means less details and a potential accuracy problem. Furthermore, there is no accessible data regarding the number of positions, and hence forming an inability to determine the ministry's regulatory percentage. This absence of data is defeated by specific knowledge obtained with regard to the ministry regulatory operations. The only ministry regulatory function is The Department of Export Control, which was assessed as NIS 50 million, a general estimation according to the number of positions and functionality. Although this method of estimation lacks some transparency, it does not contradict the general tone and variety of the estimation tools presented at chapter 3. Due to the magnitude of the defense budget, in this particular case, it is better to account the regulatory budget along with minor accuracy risk than to include the entire category's budget as "unknown". Categorizing the defense budget as "unknown" will make the margin of error many times larger than the size of the assessed regulatory budget and will make it irrelevant.

In contrast to the Ministry of Education and the Ministry of Defense[15] which are both public goods suppliers and direct service oriented, The Ministry of Transportation and the Population and Immigration Authority[16] are both much smaller in terms of overall budget (NIS~0.5 billion) but devote 100% (Population and Immigration Authority) and 89.7% (Ministry of Transportation) to regulatory activity. Considering rules 56 of 63 budget rules for the Ministry of Transportation (excluding The Meteorological Service) and all of the 67 budget rules of Population and Immigration Authority were classified as regulatory rules. It is crucial to note that the Ministry of Transportation controls a much larger budget of about NIS 12.4 billion for the development of transportation infrastructure, but this budget is in the bounds of different clauses and the mainly expenditure is spent through large contracts.

A large concentration of agencies and ministries has small budgets as well as small percentage of regulation budget: The Prime Minister Office (PMO), Ministry of Construction and Housing

[15] Located at the south-east corner of figure 2.
[16] Located at the north-west corner of figure 2.

(MOC), Ministry of Science and Technology (MOS) etc. They have very little in common with each other in terms of institutional structure or types of responsibility. The PM office and The Ministry of Sciences have several different responsibilities and incorporate different departments while The Ministry of Construction is oriented around one field. They have different number of budget rules (406 for PMO, 106 for MOS, and 34 rules for MOC).

4.4 Assessing Margins of Error

As aforementioned above, the results are based upon selective analysis with significant room for subjective judgment as well as an imperfect database. As I seek to consider these limitations, a second-degree classification was performed, classifying the extent of judgment in the basic classification of regulatory budget/non regulatory budget. The following segment presents the estimated margin of error.

The margin of error is assessed as falling in the bounds of three categories: minor use of judgment, major use of judgment and combined judgment - both minor and major. These three categories are relevant for the entire four fundamental categories (non-regulatory, regulatory, unknown, mixed purposes).

The results of this classification show that budget rules classified originally as non-regulation (coded "0") included NIS 1.2 billion for minor use of judgment, NIS 0.87 billion for major use of judgment and NIS 2.1 billion for both minor and major aggregated together. The rules originally classified as "unknown" (i.e,; regulation or non-regulation) were valued at NIS 0 for both minor and major uses of judgment. The rules originally classified as regulation were valued at NIS 0.19 billion for minor use of judgment, NIS 0.80 billion for major use of judgment and NIS 0.99 billion for these two together. The rules originally classified as mixed purposes (i.e.; both regulation and non-regulation) were valued at NIS 0.58 billion for minor use of judgment, NIS 0.06 billion for major use of judgment and NIS 0.64 billion for total supplement.

Determining the high and low ends of the discretion interval sums up the most extreme possible effect of judgment errors. At the most, error stemming from judgment adds up to NIS 1.8 billion for minor use of judgment and NIS 0.9 billion for major use of judgment. Adding the original assessment of NIS 6 billion, the maximum possible Regulatory Budget is NIS 8.77 billion. At the lower end, the maximum deduction due to use of minor judgment is NIS -0.76 billion (minor use

of judgment), NIS -0.86 billion due to major use of judgment. Adding these up with the original assessment adds up to NIS 4.4 billion.

Table 10: Margin of Error (Thousands of NIS)			
Originally coded as:	Minor use of judgment	Major use of judgment	combined
Non-regulation	₪ 1,222.289 (A1)[1]	₪ 868,845 (A2)	₪2,091,134
Un-known	₪ 0 (B1)	₪ 0 (B2)	₪ 0
regulation	₪ 191,033 (C1)	₪ 803,919 (C2)	₪ 994,952
mixed purposes	₪ 576,781 (D1)	₪ 61,106 (D2)	₪ 637,887
TOTAL Addition - Low end	₪ -767,814 (-B1-C1-D1)	₪ -865,025 (-B2-C2-D2)	₪ -1,632,839
TOTAL Addition - High end	₪ 1,799,070 (A1+B1+D1)	₪ 929,951 (A2+B2+D2)	₪ 2,729,021
(1) Codes in brackets refers to definitions as presented in chapter 3.3 above			

The interval of judgment effect on the Regulatory Budget is NIS 4.36 billion. In terms of percentage of total budget, the Israeli regulatory budget is between 2.06% - 1.04% of the total budget (NIS 8.77 – 4.41 billion).

Table 11: Regulatory Budget – Adjusted for Margins of Error (Thousands of NIS)			
	Minor use of discretion	Major use of discretion	combined
Adjusted high end - **Regulatory Budget**	₪ 7,847,124	₪ 6,978,005	₪ 8,777,075
Adjusted high end – % of total budget	1.84%	1.64%	**2.06%**
Adjusted low end - **Regulatory Budget**	₪5,280,240	₪5,183,029	₪4,415,215
Adjusted low end – % of total budget	1.24%	1.22%	**1.04%**

Chapter 5: Analysis of the Results

This chapter discusses first the Israeli results and the main principles of the analysis; I then examine and compare this analysis to the American case study. Later I will discuss the regulatory activity concerning budgets, regulatory cost-benefit analysis, and finally I will conclude this chapter with discussing the strengths and weaknesses of regulatory budget analysis.

5.1 Discussion of Results and comparing the Israeli Findings to the U.S.A Findings in 2014

The basis of the analysis carried out in this thesis is categorization through content analysis. The results show that the Regulatory Budget is NIS 6 billion ($1.63 billion) which account for 1.42% of the total (proposed) budget in the year of 2014. Accounting for the discretion effect interval, the budget is estimated as 1.04% to 2.06% of total budget. It is challenging to get to the conclusion whether the assessed Israeli regulatory budget of NIS 6 billion is high or low, without having some kind of comparison. The only source of compression is the Weidenbaum Report of the U.S.A Federal Budget (Dudley & Warren: 2014). The comparison is mainly limited as the two were assessed by similar guidelines but not by identical method. However, the main principal here is that in both cases the assessment was made bottom-up, starting at least at one level more detailed than the agency level, the meaning of which is to determine the agency portion of regulatory activity. The Weidman Report virtually indicates an identical result of 1.48% for 2013, and 1.58% for 2014. This finding is surprising since the U.S.A and Israel differ from each other in their political and institutional systems. The most obvious and possibly influential difference between the two is the power balance between the central and the local government as the local government regulatory budget was not included in the assessment. While Israel is characterized by centralized system, the U.S.A federal system holds many more regulatory functions at the local levels, ones that are not accounted for under the federal government's budget. This leads to the interim conclusion according to which the Israeli regulatory budget is relatively lower than this prevalent in the U.S.A. Another parameter for evaluating regulatory activity can be the number of regulatory positions within the government bureaucracy. The results for regulatory positions in Israel show 10,978.9 regulatory positions, which lead to 8.6% of all government positions. In 2012, the U.S.A had 277 thousands full-time equivalent employment at the federal level (Dudley & Warren: 2014), resulting in 10.7% of positions. Here again, the similarity of results is visible, even though the regulatory positions as a measure of regulatory activity is an incomplete measure as it lacks reference to outsourced regulation (O'Rourke: 2003). As presented in figure 3 below, the

regulatory budget can be shaped in various forms, including purchasing inspection services and consulting services. This implies that the number of regulatory positions tells us something regarding the nature of government regulation, and yet not enough about the scope of regulation. Moreover, for two reasons, the number of regulatory positions is fairly elusive in terms of assessment in those both countries. Firstly, there are positions with mixed purposes: regulation and non-regulation, and it is difficult to derive the percentage needed for regulation. Secondly, there are ancillary positions that support the regulatory positions (logistics, management, HR, etc.). One should include these positions as well when coming to assess the scope of regulatory activity. In this analysis, the ancillary positions were not accounted for, but the relative overhead budget for regulation was indeed. One of the most surprising findings in the results is the scale of regulatory budget that were indirectly assessed. Table 7 shows that the overhead costs reflected at the indirect assessment (0.9% of total budget) are more than double than the direct regulatory budget (0.4% of a total budget). This finding highlights the importance of detailed budget extrapolation of agencies with mixed purposes. Had the methodology of assessment solely concentrated in the pure regulatory agencies, the results would have been at a reverse bias. Unfortunately, the Weidman Report does not state what percentage of the regulatory budget is needed due to direct/indirect costs.

5.2 Discussing Regulatory Activity from Budgetary Perspective:

Due to the limited nature of budgets, they do reveal governance preferences. Every cent of the regulatory budget comes at the expense of other governmental activities and vice-versa. The role of both public opinion and government's own internal review in best expressing and evaluating preferences would improve if costs and benefits of regulatory decisions were clearer. Additionally, the regulatory budget has a direct influence on governance potency, its ability to achieve its goals and influence the civil sphere, which can also be discussed as the democratic problem of regulatory governance, by the aid of power given to the non-elected regulators (Levi-Faur, 2011; Sunstein, 2002). The power/potency of regulators arises not just from the authority they yield but rather from the resources they have and allow them to maintain autonomy, collect data, supervise, multi-task etc. Assessing the regulatory budget permits tracking the resources available to regulators, and relates them to other aspects of regulators workings and influence on society and on regulatees. From a normative perspective, as long as a government goes through an extensive privatization process, as in the case in Israel since the 90s, one should expect seeing simultaneously growth of

regulatory budget. Absence of regulatory budget growth while (or after) privatization trend means shedding responsibilities and leaving the door open for harming government and/or public interests.

Regulatory Budget by Field: Comparison with the U.S.A

The regulatory budget for selected fields of government is presented below in table 12. The regulatory budget for Health is NIS 750 million, which are 0.18% of the total budget, and 12.4% of the total regulatory budget; it is nearly twice of the environment regulatory budget and precisely four times of the regulatory budget of energy (NIS188.4 million). When comparing the results of the Israeli regulatory budget to those of the Weidman Report made by the American Federal Budget in selected fields, there are firm similarities. The regulatory budget for energy and health is almost identical in both countries in terms of parentage of all regulatory budget and total budget, while in the environment field, the American regulatory budget is only 4 percentage points higher in terms of percentage of total regulatory budget.

Table 12: Regulatory budget by field

Israeli Regulatory Budget				U.S Federal Regulatory Budget (Weidman Annual Report)	
Field	Regulatory Budget (thousands of NIS)	% of total budget	% of regulatory budget	% of total budget	% of regulatory budget
Environment	426,995	0.10%	7.1%	0.17%	11.1%
Energy	188,400	0.04%	3.1%	0.05%	2.9%
Health	750,647	0.18%	12.4%	0.19%	12.1%

In both countries, the relative size of regulatory budget between the fields is similar, namely, the energy budget is the smallest, health is the largest and the environmental budget is located in between. What can be concluded from this comparison and these similarities? One probable explanation is that the budget size reflects government and/or public preferences and priorities, and that health issues are more important than energy issues (3-4 times more important). However, I would suggest alternately that public or government preferences may be useful in explaining only the margins of the regulatory budget whereas there are inherent characteristics within each sphere which predict the size of the regulatory budget. These are structure-related parameters similar to the number of regulated actors, the varieties of services and products, etc. The energy sector for instance is mostly comprised of large firms, which are consisted of barely a few different types of

utilities, whereas the health sector owns thousands of sub-fields and millions of products and services. As for regulating the health sector even at a basic level, the government should have vast expertise and street level supervision.

The similarities of the scope of regulatory activities (in terms of budget) may suggest that both Israel and U.S.A have similar perceptions regarding the level of government responsibilities and interventions in the energy and health sectors, while the Israeli government gives diminished priority to environmental issues than the U.S.A government. In addition, the similarities and differences could be an outcome of the regulatory methods that both countries employ in each field. One may conclude that the similarities are coincidental or that the results hold non-statistical significance, but they motivate further discussion and specific theories of regulatory activities which is one of these goals of this research.

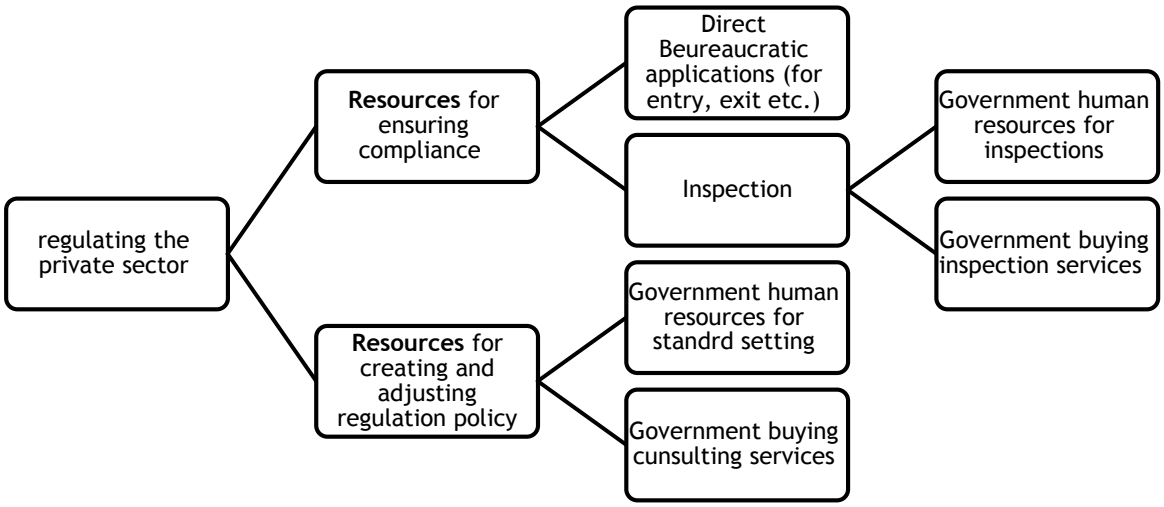
5.2.1 Types of Government Regulatory Resources:

In some cases, regulatory activity is also a substitute for direct fiscal activity. When a government faces fiscal constraints, rather than pursuing goals through taxing and spending instruments, it can use "quasi fiscal regulation" by controlling the markets (Tanzi 1995). This strategy might eliminate the large budget for subsidies or direct provision but it will establish a smaller budget for controlling mechanism. If the government intends for example to supply daycares for children, it can do so by building and operating daycares using public employees, outsourcing the services for daycares while still funding it, or permitting any private daycare to offer its services while allocating budget for government daycares supervisors.

Table 13: Public goods deliverance strategy and regulatory budget							
#	Deliverance strategy	Regulatory budget		Non regulatory budget		Example (daycares)	
		Type of Regulation	**Cost**	**Budget type**	**cost**	**Transaction**	**Regulation**
1	Government produces and/or delivers civil product	Non /internal regulation	None - low	Human resources, intermediate services, assets	High	Government pays workers, facility owner, etc.	Intra-organizational supervision of daycare
2	Government pays third party to produce/deliver civil product	External regulation	High	Buying Services	High	Government pays private company or NGO	Regulating private daycares
3	Government allows third party to produce/deliver civil product	External regulation	High	Non	Non	Government gives license to private party to collect fees from parents	Regulating child treatment & money collection

Whereas the former discussion was about regulation delivering civil products to people, the more widespread discussion concerning regulation is about government intervention in the private sector's commercial relationships between producers, suppliers and consumers. The budgetary resources handed to these types of regulation can be categorized into two branches. The first branch is "resources for performing and adjusting regulation policy". A major part of regulatory expenditure is aimed for regulation policy making. It means that somehow bureaucrats and agencies should come up with the standards for consumer products, infrastructure designing and installing standards, minimum education and experience criteria, health and finance services, supervise prices etc. The standards being appointed and adjusted are usually set by the government employed authority, but can be assisted by external advisory hired by the government.

Figure 4: Types of regulatory inputs for the budget



The second branch of budgetary resources is "resources for ensuring compliance – supervision". There are two major types of resources for ensuring compliance: inspection, and direct bureaucratic control. The government can directly perform inspection throughout its own human resource. The budget rules related to that purpose are salaries and other necessities for government personnel: real estate, transportation, training, IT, logistics, etc. In contrast, a government can purchase inspection services from a private company. In the case of this alternative, the related budget rule will be procurement. The second type of resources for ensuring compliance are government resources as direct bureaucratic control (for entry, exit etc.). As opposed to the resources of inspection, the regulatory policy can demand from the regulatee to undergo a certain process of getting a license in a governmental office. It means that the resources handed to this office should be considered part of the regulatory budget. If a person wishes for example to become a therapist, he or she needs to pass a government examination and fill in application forms. All the resources devoted by the government to preparing the examination, setting the time and place for it, checking the examinations and the application forms etc. should be included in the regulatory budget as it is the government that mandated the process and this process would not have taken

place without the mandated standards**.** In contrast, resources given for sorting application for welfare allowances cannot be considered part of a regulatory budget since if the government is removed from this relationship, there will be no relationship. As it contradicts the operational definition of regulation in this research, of which one of the conditions for an activity to be considered as regulation is interference with existing activity or relationship.

5.2.2 Two sides of Regulatory Budget

The findings of this research can commence a discussion regarding the effectiveness of regulation methods. Effectiveness is a matter of weighing costs and benefits, and this research may add to our comprehension of the costs facets of this equation. It is worth noting that in theory these two aspects of the cost of regulation (cost for government and cost for the regulatee) could be substitutive or supplementary to one another. Substitutive logic suggests that regulation costs relate to inputs that could be made either by the regulator or by the regulated body. Gathering data about a production procedure for example could be held either by a government inspection or by the regulated body, filing a report. As opposed to it, a supplementary effect suggests that where the cost of regulatory budget is higher, the cost of compliance is greater as well. This assumption stems from an institutional logic, where there is a higher budget for government regulation there is probably a regulator who is expected to justify the expenses by adding more rules, standards or procedures, ones of which the object of regulation would need to follow.

5.3 Discussion of Methodology

5.3.1 Challenges and Guidelines

The analysis encompasses several challenges, which were dealt with few guidelines. Firstly, the regulatory activity is not circulated in a uniform fashion crosswise the government. Some classification decisions were made at the agency level. In the case of the Public Utility Authority – Electricity for example, which was established for the sole purpose of regulating the electricity market, there is no need for more specific breakdown within the organizational structure for classifying this body as regulatory. However, employing similar "flat" level of analysis on the rest of the state budget would yield poor results. At the same time, it is out of the question to identify only the regulatory resources in all sections of the budget, since there are sections in where the

budget and the supplementary sources are not sufficiently detailed. Nevertheless, these cases are few and limited in their scope.

Another challenge is the obvious absence of uniformity with types of regulatory activity. When wishing to assess the direct cost of regulation there is no point in excluding some types of regulation for being "soft regulation" or unintentional regulation. It is essential to include resources given to regulation regardless if the exercise holds an effect on the market, civil sphere or no affect at all due to government incompetence. The decisive question is to enquire whether the organization has regulation as one of its goals. This does not have to be a preconceived or intentional goal by the government. It is not difficult to imagine bureaucrats exercising regulation without being aware of it, mostly in fields that are not necessarily classic regulatory activities as information gathering, planning and research, etc. The researcher should distinguish between regulatory activity and other government functions. Rulemaking and rule monitoring are fairly easy to identify whereas rule enforcement could be obscured or disputable. The police goal for example is to keep order and civil security, but at the same time, be in charge of law obedience and supervise the behavior of people. One could claim that it is a regulation of an input, but for the purpose of the research, I excluded policing derived from regulatory budget assessment since this analysis operational definition of regulation regards basic state function of policing as non-regulatory, and therefore excluding it from the regulatory budget assessment. In contrast, I do include the drivers' licensing authority as society can function rather normally without obligatory driving but not without policing.

A third challenge distinguishes between intra-government regulation and simple management control. This challenge of judgment varies according to the gap between the object of regulation and the government. The further away the object of regulation is from the government, the lower the level of discretion needed for the analysis and categorization is. The closer supervised body is to the government, it can less be clear whether the supervision activity itself is regulatory or non-regulatory activity (management). Another aspect of the dilemma regards government activities which are not only regulatory or service provision but are rather used for both purposes. Information gathering, planning and strategy departments and consulting are for instance activities which can be used to establish new regulation or adjust existing regulatory rules. On the other hand, it can be used for implementing new public service or adjusting an ongoing one. Table 11

presents examples of different government activities and the discretion level attributed for the deciding whether they are regulatory or non-regulatory in their coding process.

Table 14: Discretion Levels		
Level of discretion	**Regulatory area**	**Example**
low discretion	Supervising a market	Approval of drugs and pharmacy
	Supervising a sensitive civil activity	Licensing therapists
	Supervising a governmental service which is a sub-unit of a governmental organization – intra-government regulation	Supervising a government school
high discretion	Planning, strategy, information gathering about the market/government service	Planning and policy departments, Procuring outsourced consultants.

5.3.2 Regulatory Budget Analysis – Strengths and Weaknesses:

One of the goals of this research is to explore regulatory budget analysis as a tool for understanding regulatory activity. I will examine three aspects of regulatory budget analysis in this context. Firstly, I will relate to government/public priorities. Assessing the regulatory budget is a quantifiable issue, which enables us to discuss priorities and preferences, assuming the bigger the budget, the higher the priority of the issue. Higher regulatory budget overall and/or in a specific field is an indicator that the government perceives it as a sphere requiring more intervention and regulation. Moreover, not only the process of analysis can reveal the scope of resources but it also shows the types of regulatory activity (gathering information, inspection, licensing etc.), and the scope of privatized regulatory activity. However, as mentioned earlier in the discussion, this approach has limitations upon trying to conclude whether a regulatory budget is too high/low for comparing between fields. The regulatory budget is mostly a useful tool for comparison (over time and across country) and less useful when handling structural variance of different fields (instead, it highlights structural variance). The second issue is understanding the regulatory dynamics. Regulatory budget assessment yields highly static information; it does not see to the dynamics of

regulatory policy creation, responses, changes and adjustments. Here again, a comparison is needed in order to comprehend the relative position of the results. The third issue is the government's attitude towards the market and the civil spheres. This is potentially one of the more significant contributions of regulatory budget analysis. The quantifiable nature of the analysis serves as an indicator for the government preferences of its role and responsibilities when intervening in civil sphere.

In comparison to other quantifiable tools of the regulatory activity, assessing the government's regulatory budget is advantageous since it deals with a scarce resource. Unlike analyzing either the establishment and expansion of regulatory agencies, or the number of regulatory rules, budget allocation means high-level governance attention and sincere intention. Whereas a regulatory rule or even a regulatory agency can be generated by a political interest only as a lip service to reduce public pressure without having an intention to actually change government priorities, and at the same time allocating budgetary resources for regulation better reflects government priorities. The main downsides of assessing regulatory budgets are challenges of consistent assessment and accuracy as well as results and discretion (as discussed in chapter 3).

Conclusions

The purpose of an analytical framework in the study of Regulatory Budget is to clarify our understanding of the regulatory activity. The prism chosen here is to assess the scope of regulation throughout the cost of regulation paid by the government. The results suggest that the total expenditures on regulation are 1.4 % of the 2014 state budget along with an estimated margin of error of -0.36% and +0.66% (e.g., 1.04% - 2.06%). This is a very similar result to the American case study of 1.58%. Similar results were calculated for specific fields as health and energy while the American regulatory budget percentage for environment is higher than that which is conducted in Israel. Given the results, it is still difficult to conclude whether the regulatory budget is high or low, and whether the similarities of the two countries' results mean that both countries have a similar approach and preferences regarding regulatory activity. The data analyzed above has value in its own right, but it also opens the door for further queries. Here are some examples: what are the components of the regulatory budget (human resources budget, budget for procuring information or advisory, inspection services etc.)? How does it change? Does it tend to increase or decrease the constitution of new agencies and rules or does it need to have increments? At the same time, what brings about changes in the regulatory budget?

This methodology sets a benchmark for both initial comparative analysis and the development of more models. The possible weakness of the model lies in the fact that it was designed in a non-linear fashion, constructed and improved around one case study, namely, the methodology was evolved as the analysis progressed. The process was developed as an attempt to handle the Israeli public service structure and the Israeli budget design. In theory, it is possible to yield a higher level of validation by using a group of regulation experts for coding and assessment purposes. Nevertheless, the findings enable the prevalence of a discussion considering levels of regulatory budget and effectiveness.

Practicing the analytical framework that was established in this paper in other case studies, holds great potential for investigating variance over time and across different countries. The model can be used as for determining whether the regulatory budget has increased in general or the manner in which it has changed within or between different sectors. Understanding how regulatory budgets vary from place to place, and over time can also highlight differences in organizational structure

between countries, suggest the types and approaches of regulation that are most affective, and highlight the trend of resources for protecting public interests.

APPENDIX – 1: Categorization Strategy and Classification Decisions

General Process:

1. Downloading the budget file: "The draft budget for 2013-2014 at the level of program" from the ministry of finance, the Budgets department.[17].
2. Filtering the rows of the file for 2014 rules.
3. Filtering out revenue rules and leaving only expenditure rules.
4. Content analysis of all remaining rules, categorical classification of these values:

VALUE	MEANING
0	Non-Regulatory Budget
1	Regulatory Budget
2	Unknown / Unclear
3	Rule with Mixed Budget: Regulation and Non-regulation

5. Upon finishing the first classification process, a second overall review was performed in a different order. This was done for the increasing of consistency and validity.

Dealing with Database Problems:

1. For some rules, the description lacks some key words. In some of these cases, the classification of the rule was derived from the following procedure:
    a. The actual words that are written.
    b. The information is gathered from general knowledge. Programs 04-02-85-02 to 04-02-85-10 for example are referred to as substitutive. It is logical to assume that those rules refer to the national program of fuel substitutions, which operates within the prime minister office.
    c. It is possible to inquire about the meaning of a budget item at the Department of Budgets (Ministry of Finance), the results of the inquiry will be the full name of the item: http://religinfoserv.gov.il/magic94scripts/mgrqispi94.dll?APPNAME=budget&PRGNAME=takzivreq

[17] http://www.mof.gov.il/BUDGETSITE/STATEBUDGET/BUDGET2013_2014/Pages/Budget2013_2014HP.aspx

2. The system of estimating the regulation proportion according to the number of regulatory positions is based upon public employee's responsibilities – regulation employees and non-regulation employees. Relying upon a number of positions in order to assess costs should account for these complexities:
    1. Employees undertake functions of both regulation and non-regulation.
    2. There could be some variance between the cost of regulation employees and that of non-regulation employees: salaries, use of real estate, use of transportation, etc.
3. Determining the total number of government full-time positions and the number of full-time positions at each office: this official budgetary report states 109,946 positions in government offices and business enterprises (i.e.: hospitals, sea-ports, etc.). The Wage and Labor Agreements Department in the Ministry of Finance reports 130,005 full-time positions (after deducting 88,849 for pensions). I have used the latter for assessing the percentage of regulatory positions due to the source's high level of detail (the first source holds only one level break down to 51 categories, whereas the second source has two levels of breakdown and 5,219 categories).
4. I have decided to disregard items with nullified ("0") budget comprises 9,219 out of 13,912 items (66%). In most cases, these are the same rules stated twice - one time with the sum and one time when they are nullified.
5. In some rules, the budget is nullified and is included within other more general rules. The Chief Rabbinical Authority - an agency within the Prime Minister Office- holds zero budget in the official budget, but in reality their function budget is included in the budgetary rules of the Prime Minister Office as "salaries", "transportation" and others, alongside with the office's other function.
6. Some cross-governmental expenses are concentrated within unique rules: vehicles, government real estate, pension, reserves. For these items, the total sum was multiplied by the government's general regulation factor, namely a ratio of regulation employees to total employees.
7. Some agencies/departments are more independent than others in terms of overhead costs. It is difficult to conclude for example, to what degree the Israel Fire and Rescue Services is dependent on the Ministry of Public Security (management, HR, purchasing etc.).

Although this agency is not considered as a regulatory agency, the decision holds an effect on the total number of positions in the ministry and hence affects its regulation proportion.

8. Assessing the Regulatory Budget of the Ministry of Defense is different since the ministry budget is the largest of all the government units, and the regulation output is insignificant in comparison to others, the method for evaluating the regulatory budget is distinct from most other mixed units (regulation and non-regulation). Instead of factoring the regulation employees and setting this factor to the entire unit budget, I have assessed the budget of the only department that is definitely regulatory – the exporters control division, at NIS 50 million, through prior knowledge of the department approximate size and activity. Even though it is not ideal, the alternative has been to consider the entire defense budget as "unknown" from a regulatory aspect, which will hence make the margin of error many times larger than the size of the assessed regulatory budget and makes it irrelevant.
9. When discussing the local government, one should know that in Israel, there are only two levels of government, the central government and the local government: municipalities, regional councils and local councils. Only a minor share of the local government budget comes from the central government (Spector-Ben Ari, 2013). Due to this fact and to the limited scope of this work the local government budget rules have been deducted from the aforementioned assessment.

Appendix 2: Dilemmas and Decision Making

1. Alongside the classification of budget rules as regulatory/non regulatory described above, another review was held in order to determine the level of discretion used by the coder in the classification decisions. That is, the level of discretion exercised by the coder upon deciding whether a rule was regulatory or not. Each rule was categorically classified in terms of the discretion used, as one of these values:

VALUE	MEANING
0	Very low level of discretion
1	medium level of discretion
2	high level of discretion

2. The following table presents the major dilemmas at the office / agency level:

Organization	The dilemma	Primary classification	Discretion level	Items serial number	Budgetary effect for 2014
The Knesset	The MK function can also be considered as regulation over the government	Non regulation	medium	02	563,901
The Central Bureau of Statistics	It can be argued that the output of the CBS is used inherently for regulation	Non regulation	high	04-53	203,032
Civil Service Commission – civil service court, Disciplinary Division, Investigations Division and Discipline	Could be claimed as self-regulation within government	Non regulation	high	04-55	<86,021
Ministry of Finance – Government real estate agency	Regulation agency uses government real estate property. It is unknown whether these resources are allocated within the government real estate agency or within every government office / agency's own budget	Mixed	high	05-51-11-03 05-51-11-06	3,773
Israel Tax Authority	The authority core function is for the collection of tax revenue but also supervising and investigating tax fraud	Non regulation	high	05-52-01	(estimated at 1,434,795)

Ministry of Finance – Automated processing services	The output is probably used partly also for different regulation function within government	Mixed	high	05-52-02	114,269
Ministry of Interior – local government supervision	it can be excluded as within government regulation	regulation	high	06-21	15,809
Ministry of Interior - biometric agency	it can be excluded for being a basic function of government (similar to police or army)	regulation	high	06-23-01	10,319
Ministry of Interior - physical planning	it can be excluded as it serves a public good rather than regulation	regulation	high	06-30	125,903
Israeli Police	Could be seen as regulation over society	Non-regulation	very low	07-80 52-50	9,670,443 381,273
Ministry of Justice – unit for investigating police officers	Could be seen as self-regulation within government	Non-regulation	medium	08-51-15	9,993
Enforcement authority and collection	The authority core function is for the collection of tax revenue but also supervising and investigating tax frauds	Non-regulation	high	08-55-01	121,425
The general Guardian/custodian and the government assessor	it can be excluded for being a basic function of government	Regulation	medium	08-51-12 08-51-13	62,880 6,334
State Comptroller	Could be seen as self-regulation within government	Non-regulation	high	11	365,569
Coordination of Activities in the Territories	May contain regulation functions related to the occupied territories	Non-regulation	medium	17	108,437
Ministry of Education – The National Authority for Measurement and Evaluation	Could be seen as self-regulation within government	Regulation	high	20-21-16	45,194
Ministry of Education – different items	Unable to conclude whether the items contain regulation	Regulation	high	20-21-16-02 20-29-08-41 20-29-08-42 20-29-09-57 20-29-15-01	Total – 22,607
Ministry of Education – different items	Unable to conclude whether the items contain regulation	Non-Regulation	high	20-29-07-41 20-29-07-48 20-23-07-51	Total – 20,734
Ministry of Welfare	Unable to conclude whether the items contain regulation. The	Non-regulation	medium	23-01-12 23-01-19	Total <145,666

	ministry mostly supplies services or also supervises and sets standards (not setting standards for allowances)				
Ministry of Health	Unable to conclude whether the items contain regulation	Non-regulation	medium	24-07-07-36	2,200
Ministry of Health	Unable to conclude whether the items contain regulation	Regulation	medium	24-07-10	3,415
Ministry for Environmental Protection - surveys and research items	Regarded as regulation because it sets the foundation for the ministry's work. A ministry which is almost entirely regulation oriented	Regulation	medium	26-12-01-17	769
Ministry for Environmental Protection – protection funds	Unable to conclude whether the items contain regulation	Regulation	medium	26-13-04	7,300
Ministry for Environmental Protection – natural resources + industry clusters	Due to the small budget quoted, the activity cannot refer to funding the projects, therefore I assume it is for monitoring activities etc.	Regulation	high - medium	26-12-01-11 26-12-01-15	Total of 5,000
Ministry for Environmental Protection – activation of environmental unites	this general rule most likely refers to regulation, due to the ministry's orientation	regulation	medium	26-12-01-18	11,000
Ministry of Agriculture - The Agricultural Research Organization	While The research findings can be used for standard setting, the main uses are academic and for assistance for the private sector	Non – regulation	medium	33-02-02	256,067
Ministry of Agriculture - Consulting and Research	Regarded as regulation because it sets the foundation for the ministry work. A ministry which is almost entirely regulation oriented	Regulation	medium	34-30-06	22,349
Ministry of Economy – Reserves for structural change	Unable to conclude whether the items contain regulation	Non – regulation	medium	36-45	96,833
The Ministry of Transportation –	The agency has some classic regulation	Regulation	High	40-53-01	<135,410

National Road Safety Authority	functions, as well as educational, research and consulting functions which I also consider as soft tools for regulation				
Reserve	Multiplied by the total percentage of regulation employees	Partly regulation	very low	47	Much less than 7,308,385
Government buildings - rent	Multiplied by the total percentage of regulation employs	Partly regulation	very low	51	Much less than 661,866
Population and Immigration Authority	It could be argued that this is a basic function that a country cannot operate without, I decided that in Israel it is more than a basic function of registering the populous	Regulation	high	68	514,728
Housing – planning and supervising (new settlements)	When the government builds a new settlement I consider it to be a service, even the planning and supervision of the building	Non- regulation	high	Some rules under 70-02	120,600
Israeli Land Authority – Land Protection Division	Not sure how much input is for supervision versus policy and service	Regulation	medium	98-21-01 98-20	99,500 >371,136

Appendix 3: complete regulatory budget

The complete regulatory budget and non-regulatory budget as well as calculation are presented an Excel file "Israeli Regulatory Budget Classification - 2014".

References

Adler, M. D., & Posner, E. A. (2006). *New foundations of cost-benefit analysis*. Harvard University Press.

Perotti, R., &Alesina, A. (1997). The Welfare State and Competitiveness.

Ayres, I., & Braithwaite, J. (1992). Responsive regulation: Transcending the deregulation debate. Oxford University Press.

Ben-Bassat, A., &Dahan, M. (2006). The Balance of Power in the Budgeting Process. *The Israeli Democracy Institute*.

Borzel, T. A. (1998). Organizing Babylon-on the different conceptions of policy networks. *Public administration*, *76*(2), 253-273.

Braithwaite, J. (2008). *Regulatory capitalism: How it works, ideas for making it work better*. Edward Elgar Publishing

Christine Parker and John Braithwaite, J., & Parker, C. (2005) *Regulation*. In M, Tushent & P, Cane (eds.), *The oxford Handbook of Legal Studies*. Oxford.

Cavanagh, S. (1997). Content analysis: concepts, methods and applications. *Nurse researcher*, *4*(3), 5-13.

Coglianese, C., & Lazer, D. (2003). Management-based regulation: Prescribing private management to achieve public goals. *Law & Society Review*, *37*(4), 691-730.

Cotterrell, R. (1995). Sociological interpretations of legal development. *European Journal of Law and Economics*, *2*(4), 347-359.

Dorf, M. C., & Sabel, C. F. (1998). A constitution of democratic experimentalism. *Columbia law* review, 267-473.

DeMuth, C. C. (1980). Regulatory Budget, The. Regulation, 4, 29.

Dudley, S., & Warren, M. (2014). Sequster's Impact on Regulatory Agencies Modest. Regulatory Studies Center. The George Washington University.

Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of advanced nursing*, *62*(1), 107-115.

Grabosky, P. N. (1995). Using non-governmental resources to foster regulatory compliance. *Governance*, *8*(4), 527-550.

Guthrie, J., Petty, R., Yongvanich, K., &Ricceri, F. (2004). Using content analysis as a research method to inquire into intellectual capital reporting. *Journal of intellectual capital*, *5*(2), 282-293.

Hallgren, K. A. (2012). Computing inter-rater reliability for observational data: An overview and tutorial. *Tutorials in quantitative methods for psychology*, *8*(1), 23.

Hopkins, A. (1993). *Prosecuting for Workplace Death and Injury*.

Hopkins, T. D. (1996). *Regulatory costs in profile* (No. 132). Center for the Study of American Business, Washington University.

Hood, C., James, O., Jones, G., Scott, C., & Travers, T. (1998). Regulation inside government: where new public management meets the audit explosion. Public Money and Management, 18(2), 61-68.

Hood, C., James, O., & Scott, C. (2000). Regulation of government: has it increased, is it increasing, should it be diminished?. Public Administration,78(2), 283-304.

Jordana, J., & Levi-Faur, D. (2005). The diffusion of regulatory capitalism in Latin America: Sectoral and national channels in the making of a new order. The Annals of the American Academy of Political and Social Science, 598(1), 102-124.

Jordana, J., D. Levi-Faur and X. Fernandez i Marin (2009), 'The global diffusion of regulatory agencies: institutional emulation and the restructuring of modern bureaucracy', Unpublished manuscript.

Kolbe, R. H., & Burnett, M. S. (1991). Content-analysis research: An examination of applications with directives for improving research reliability and objectivity.

Krippendorff K. (1980) Content Analysis: An Introduction to its

Krippendorff, K. (2004). Reliability in content analysis. *Human Communication Research*, *30*(3), 411-433.

Levi-Faur, D. (2005). The global diffusion of regulatory capitalism. *The Annals of the American Academy of Political and Social Science*, *598*(1), 12-32

Levi-Faur, D. (2011). Regulation and regulatory governance. *Handbook on the Politics of Regulation*, 1-25.

Levi-Faur, D. (2013). The Odyssey of the Regulatory State: From a "Thin" Monomorphic Concept to a "Thick" and Polymorphic Concept. *Law & Policy*,*35*(1-2), 29-50.

Lobel, O. (2004), 'The renew deal: the fall of regulation and the rise of governance in contemporary legal thought', *Minnesota Law Review*, 89, 342–70.

Lombard, M., Snyder-Duch, J., & Bracken, C. C. (2002). Content analysis in mass communication: Assessment and reporting of inter-coder reliability. *Human communication research*, *28*(4), 587-604.Methodology. Sage Publications, Newbury Park

Magat, W., Krupnick, A. J., & Harrington, W. (2013). Rules in the making: A statistical analysis of regulatory agency behavior. Routledge.

Majone, G. (1994). The rise of the regulatory state in Europe. *West European Politics*, *17*(3), 77-101.

Majone, G. (1997). From the positive to the regulatory state: causes and consequences of changes in the mode of governance. *Journal of public policy*, *17*(02), 139-167.

Malyshev, N. (2010). A Primer on Regulatory Budgets. *OECD Journal on Budgeting*, 10(3), 1-10.

May, P. J. (2007). Regulatory regimes and accountability. *Regulation & Governance*, *1*(1), 8-26.

May, P. J. (2010). Performance-based regulation, in David Levi-faur (ed.) Handbook of the Politics of Regulation, Cheltenham: Edward Elgar.

McBarnet, D., & Whelan, C. (1997). *Creative compliance and the defeat of legal control: the magic of the orphan subsidiary*. na.

McCain, G. C. (1988). Content analysis: a method for studying clinical nursing problems. *Applied Nursing Research*, *1*(3), 146-147.

Mikhaylov, S., Laver, M., & Benoit, K. (2008, April). Coder reliability and misclassification in comparative manifesto project codings. In *66th MPSA Annual National Conference* (pp. 3-6).

O'Rourke, D. (2003). Outsourcing regulation: Analyzing nongovernmental systems of labor standards and monitoring. Policy Studies Journal, 31(1), 1-29

Perreault, W. D., & Leigh, L. E. (1989). Reliability of nominal data based on qualitative judgments. *Journal of marketing research*.

Radaelli, C. M., & De Francesco, F. (2007, September). Regulatory impact assessment, political control and the regulatory state. In *4th General Conference of the European Onsortium for Political Olitical Resreach* (Vol. 4).

Renda, A., Schrefler, L., Luchetta, G., &Zavatta, R. (2013). Assessing the Costs and Benefits of Regulation.

Scott, C. (2004). *Regulation in the age of governance: The rise of the post regulatory state* (pp. 145-174). Edward Elgar Publishing.

Selznick, P. (1985), 'Focusing organizational research on regulation', in R. Noll (ed.), *Regulatory Policy and the Social Sciences*, Berkeley and Los Angeles: University of California Press, pp. 363–7.

Shapiro, S. (2011). 28 The evolution of cost–benefit analysis in US regulatory decision making. *Handbook on the Politics of Regulation*, 385.

Slovic, P. E. (2000). The perception of risk. Earthscan publications.

Spector-Ben Ari, S. (2013) Local Authorities in Israel, Background Document for Internal Affairs and Environment Protection. Research and Information Center, Knessest.

Sunstein, C.R. (2002), *The Cost–Benefit State: The Future of Regulatory Protection*, Chicago: American Bar Association.

Tanzi, V. (1995). Government role and the efficiency of policy instruments.

Thompson, F. (1997). Toward a regulatory budget. Public Budgeting & Finance,17(1), 89-98.

Tramontozzi, P.N, Chilton. K. W, (1987). The Federal Free Ride: The Economics and Politics of U.S. Transit Policy. Center for Study of American Business, Washington University, Formal Publication 82.

Tinsley, H. E., & Weiss, D. J. (2000). Interrater reliability and agreement. *Handbook of applied multivariate statistics and mathematical modeling*, 95-124.

Viscusi, W. K. (1992). *Fatal tradeoffs*. Oxford University Press.

Vogel, D. (1986). *National styles of regulation: Environmental policy in Great Britain and the United States* (Vol. 242). Ithaca, NY: Cornell University Press.

Vogel, S. K. (1996). Freer markets, more rules: regulatory reform in advanced industrial countries. Cornell University Press.

Von Hagen, J., (1992). Budgeting procedures and fiscal performance in the European Communities. Economic Papers 96. II/453/92/-EN/rev

Von Hagen, J., & Harden, I. (1996). Budget processes and commitment to fiscal discipline.

Wegrich, K (2011). Regulatory impact assessment: ambition, design and politics. In Levi-Faur, D. (Ed.). Handbook on the Politics of Regulation (397-410). Edward Elgar Publishing.

Zhang, Y., &Wildemuth, B. M. (2009). Qualitative analysis of content. *Applications of social research methods to questions in information and library science*, 308-319.

Presidential Documents. Executive order 12866 of September 1983: Regulatory Planning and Review. Federal Register vol. 58 No 190. (1993).

Presidential Documents. Executive order 13563 of January 18, 2011: Improving Regulaiton and Regulatory Review. Federal Register vol. 76 No. 14. (2011).

Legislative and Regulatory Reform Act, 2006; 32 (2). The Stationery Office Limited.

http://www.legislation.gov.uk/ukpga/2006/51/pdfs/ukpga_20060051_en.pdf

Israeli government decision number 2118 – "Reducing the regulatory burden", 10.22.2014. http://www.pmo.gov.il/policyplanning/Regulation/Documents/dec2118.pdf

IMPACT ASSESSMENT BOARD REPORT FOR 2013. European Commission

http://ec.europa.eu/smart-regulation/impact/key_docs/docs/iab_report_2013_en.pdf

Standards guide for characterization, design, development and content writing for government websites (2012). Israel Government Portal.

http://www.gov.il/NR/rdonlyres/A793673F-058B-4B31-8EFC-22D348CA7EF5/0/mofMimshalZaminGuide.pdf

e-Government report for 2013. The Israeli government ICT.

http://www.gov.il/FirstGov/BottomNav/MemshalZamin/Report/E-Gov-Report2013/

Total Government Employment Since 1962. Historical Federal Workforce Tables. FEDERAL EMPLOYMENT REPORTS.

http://www.opm.gov/policy-data-oversight/data-analysis-documentation/federal-employment-reports/historical-tables/total-government-employment-since-1962/

Proposed budget for 2013-2014 at the level of program. Ministry of Finance. Israeli Government.

http://mof.gov.il/BudgetSite/statebudget/BUDGET2013_2014/Pages/default.aspx (Excel file)

Government decision number 2118 – "Reducing the regulatory burden", 10.22.2014. http://www.pmo.gov.il/policyplanning/Regulation/Documents/dec2118.pdf

Government decision number 708 – 08.25.2013.http://www.pmo.gov.il/Secretary/GovDecisions/2013/Pages/des708.aspx

Government decision number 2118 – "Reducing the regulatory burden", 10.22.2014.http://www.pmo.gov.il/policyplanning/Regulation/Documents/dec2118.pdf

The U.S. Government Printing Office (GPO) website
http://www.gpo.gov/fdsys/browse/collectionGPO.action?collectionCode=BUDGET