



Workshop Avaliação de Impacto de Políticas Públicas

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Visão Geral

1. O imperativo da avaliação das políticas de apoio ao setor privado no Brasil

- *Muito gasto, pouco impacto*
- *Institucionalidade da evidencia*

2. *Integrando avaliação de processos e avaliação de impacto*

2.1 *The innovation policy challenge and the risk of government failure*

2.2 *The framework: The capabilities escalator*

2.3. *Evaluating from design to impact. The PER*

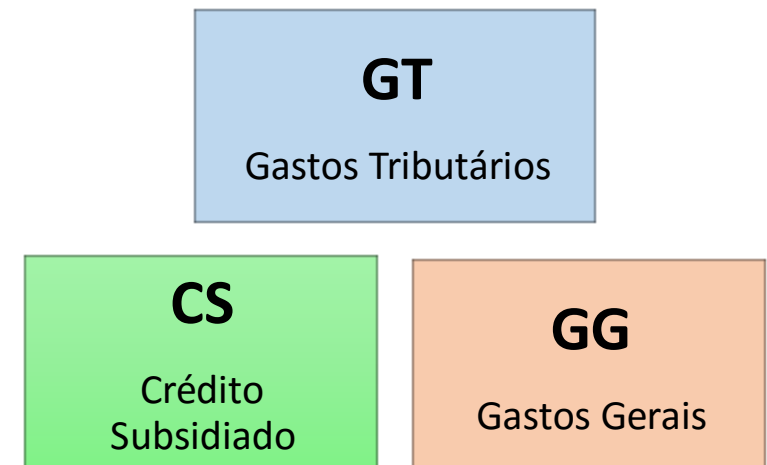
2.4 *Some lessons for impact evaluations/effectiveness*

I. O imperativo da
avaliação das
políticas de apoio ao
setor privado no
Brasil

Um ajuste justo. Muito Gasto, pouco impacto

- **Objetivo:** *Avaliar a eficiência das políticas de apoio ao setor privado*
- **Nossa definição:** *Intervenções públicas que apoiam certas empresas & atividades econômicas em detrimento de outras*
- **A justificativa do interesse público:**
 - *Tratar as externalidades, informação assimétrica e outras falhas de mercado para promover o crescimento do emprego e aumento da produtividade*

- Gastos com impactos fiscais diretos
- Políticas e programas em nível federal
- O estudo NÃO inclui: Empresas estatais, políticas estaduais e municipais, políticas que afetam todas as empresas uniformemente (p. ex.: regulações, investimentos públicos em infraestrutura)



Mensagens principais

1. Gastos elevados e crescentes

- 3,0% para 4,5% do PIB (de 2006 a 2015)
- Altos em comparação a pares internacionais, principalmente em relação às gastos tributários

2. Eficácia & eficiência limitadas e, muitas vezes, regressivas

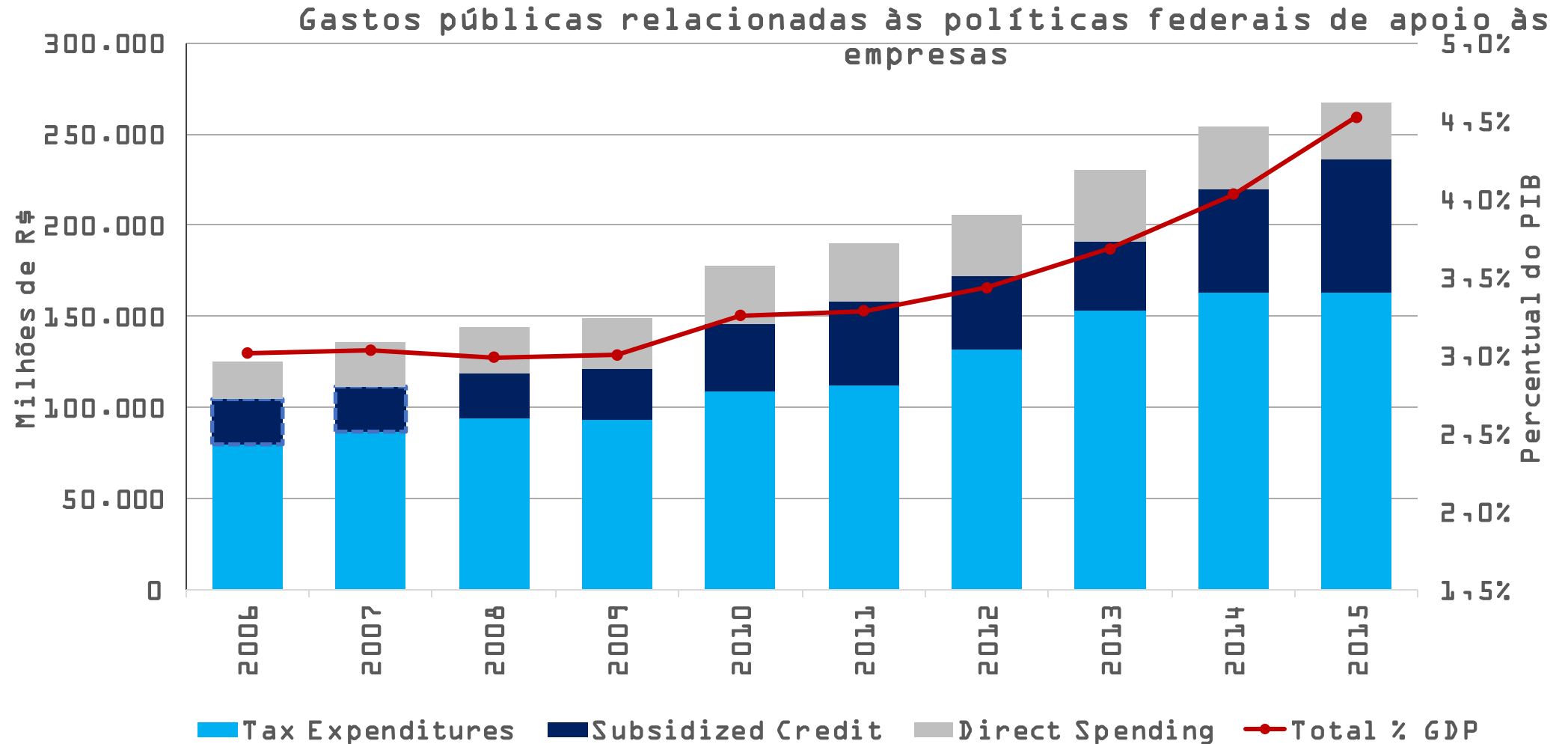
- Não há evidência de eficácia no aumento da produtividade e criação sustentável de empregos
- Os programas maiores provavelmente não são custo-eficientes
- Vários programas parecem ter um efeito de renda regressivo
- É possível economizar ou realocar até 2% do PIB com a eliminação de programas ineficazes

3. Consequências negativas e não-intencionais para a produtividade

- É provável que os gastos atuais tenham um impacto negativo:
 - Na intensidade da concorrência nos mercados de produção e insumos
 - Na realocação dos recursos e na melhoria da produtividade dentro das empresas

4. São necessárias mais avaliações para informar o debate público e reformular as políticas

Tendências dos gastos: Aumento apesar dos questionamentos em relação à sua eficácia e eficiência



Fonte: Receita Federal do Brasil / Tesouro Nacional / SPE

Nota: Valores em MM de reais, ano base 2015

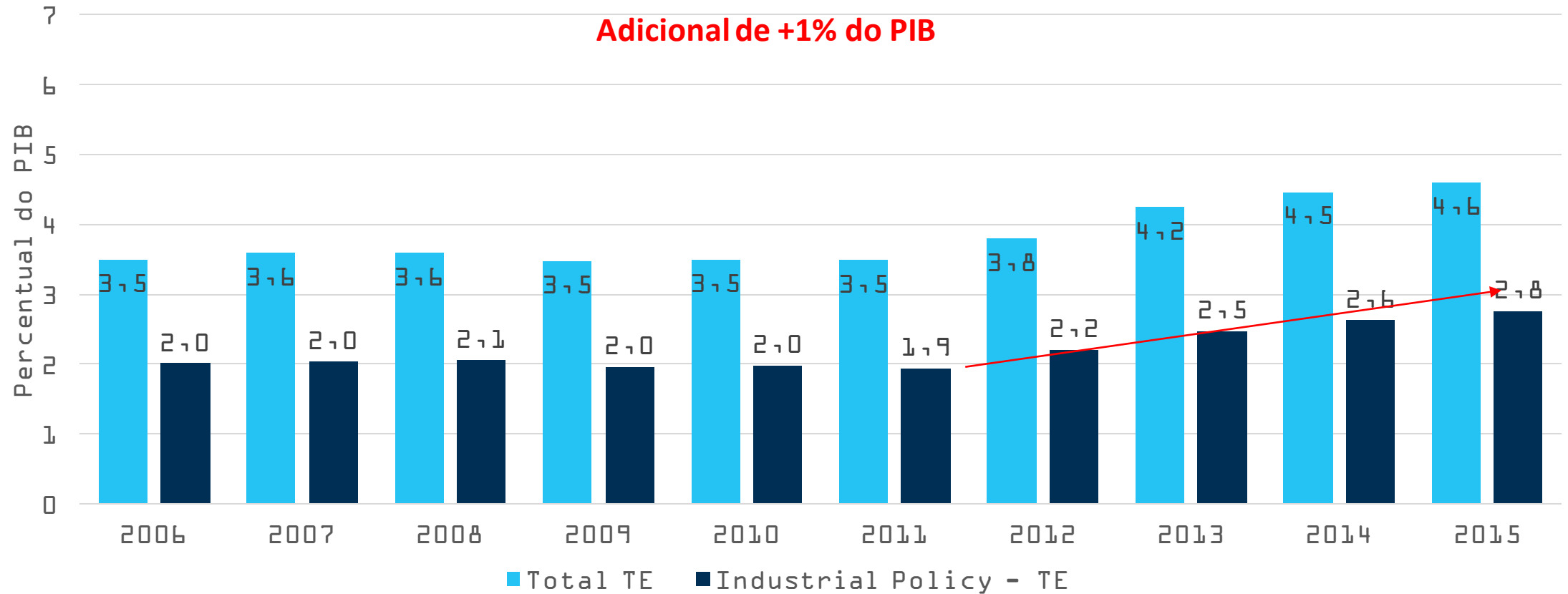
Nota 2: Crédito estimado antes de 2008

Os GTs aumentaram com o passar do tempo, chegando a 2,8% do PIB em 2015

Gastos tributários, em % do PIB

NÃO INCLUI OS GTs com ICMS em nível estadual:

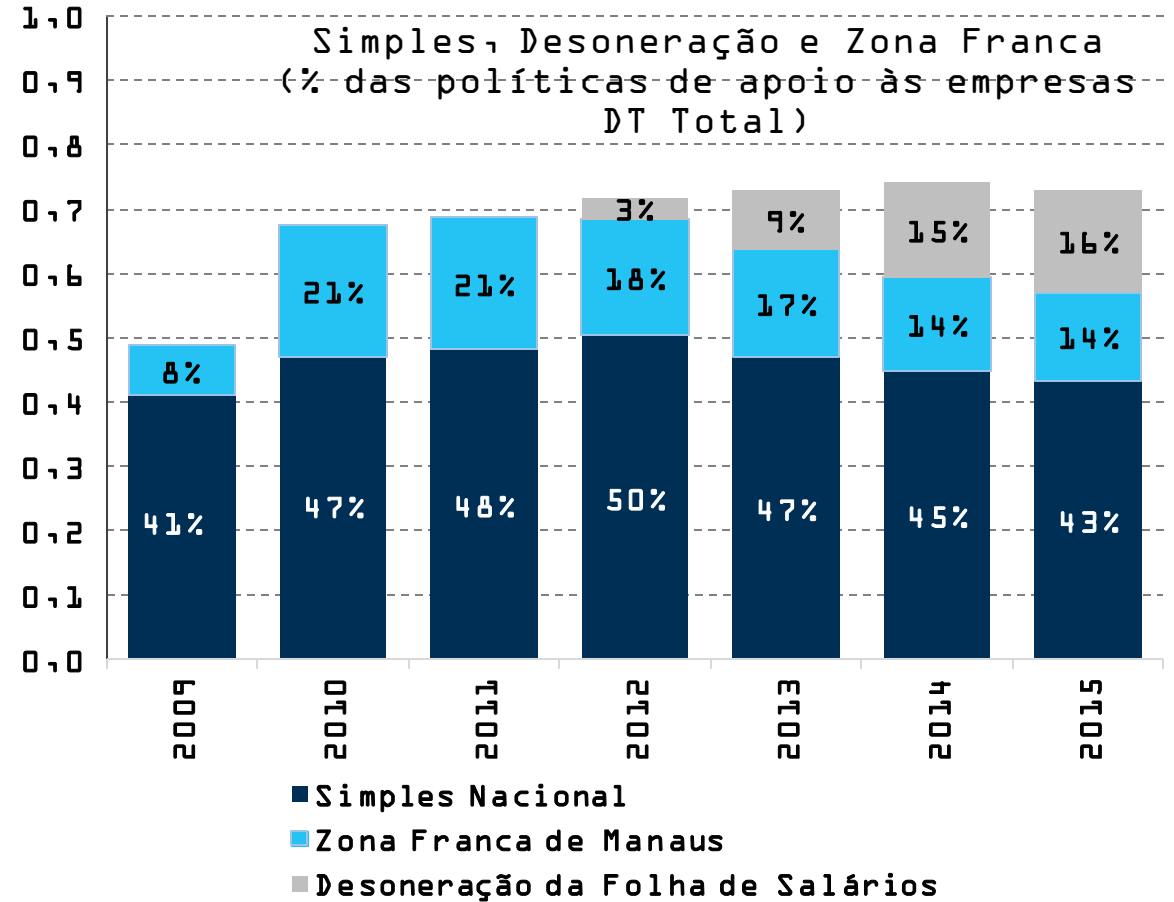
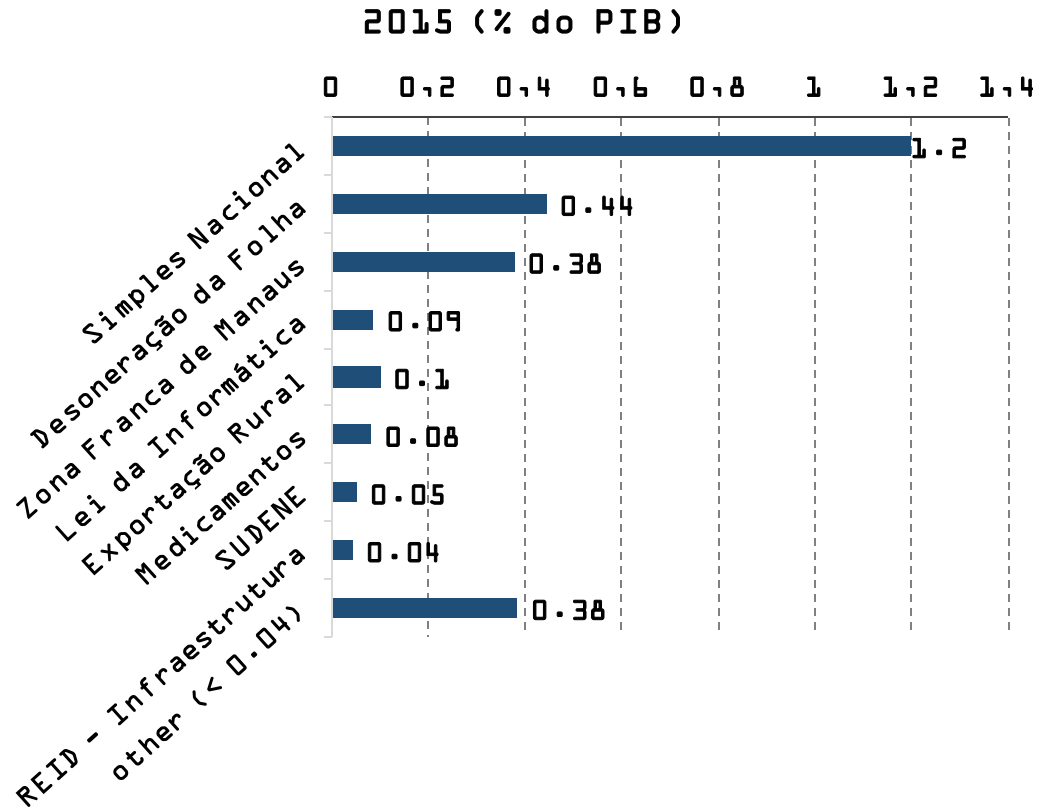
Adicional de +1% do PIB



Fonte: Receita Federal do Brasil

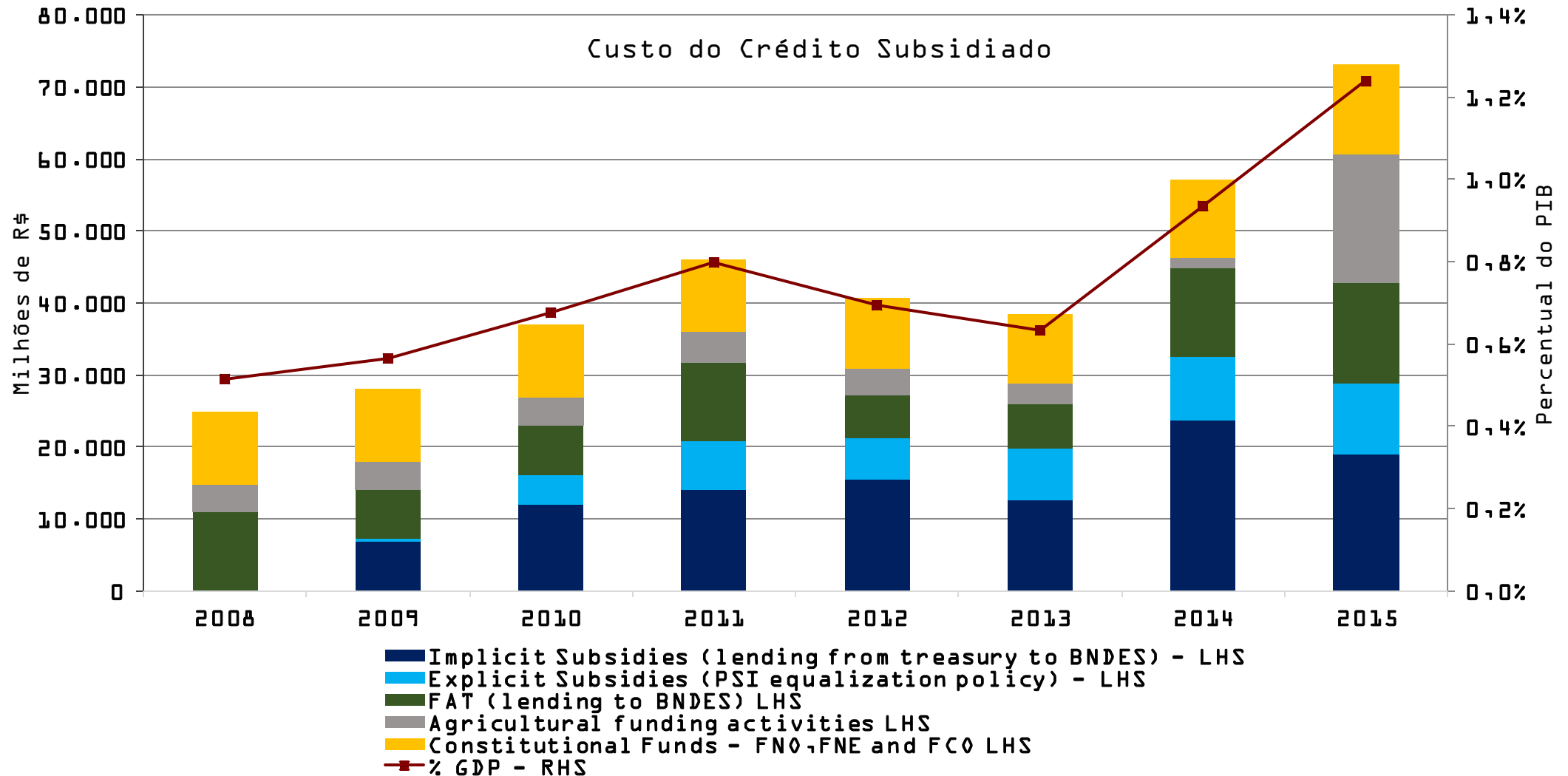
◊ SIMPLES representa a ½ dos GTs, seguido da desoneração da folha de salários e da Zona Franca de Manaus

GTs por programa



Nota: "Outros" inclui a SUDAM, Inovação Tecnológica, Automotivo, Petroquímico, Etanol, Pesquisas em C&T; o corte transversal inclui DTs relativas a bens de capital; a aceleração do período de depreciação dos equipamentos de capital, de 10 para 5 anos, a partir de agosto de 2012; o programa REPOPTO, de abril de 2012, que isenta os impostos importação e os impostos indiretos sobre investimentos em infraestrutura; e o Plano Nac. de Banda Larga, isenção de impostos indiretos para equipamentos domésticos e construções civis relacionadas a redes de telecomunicações. Fonte:

○ CS aumentou para 1,2% do PIB em 2015

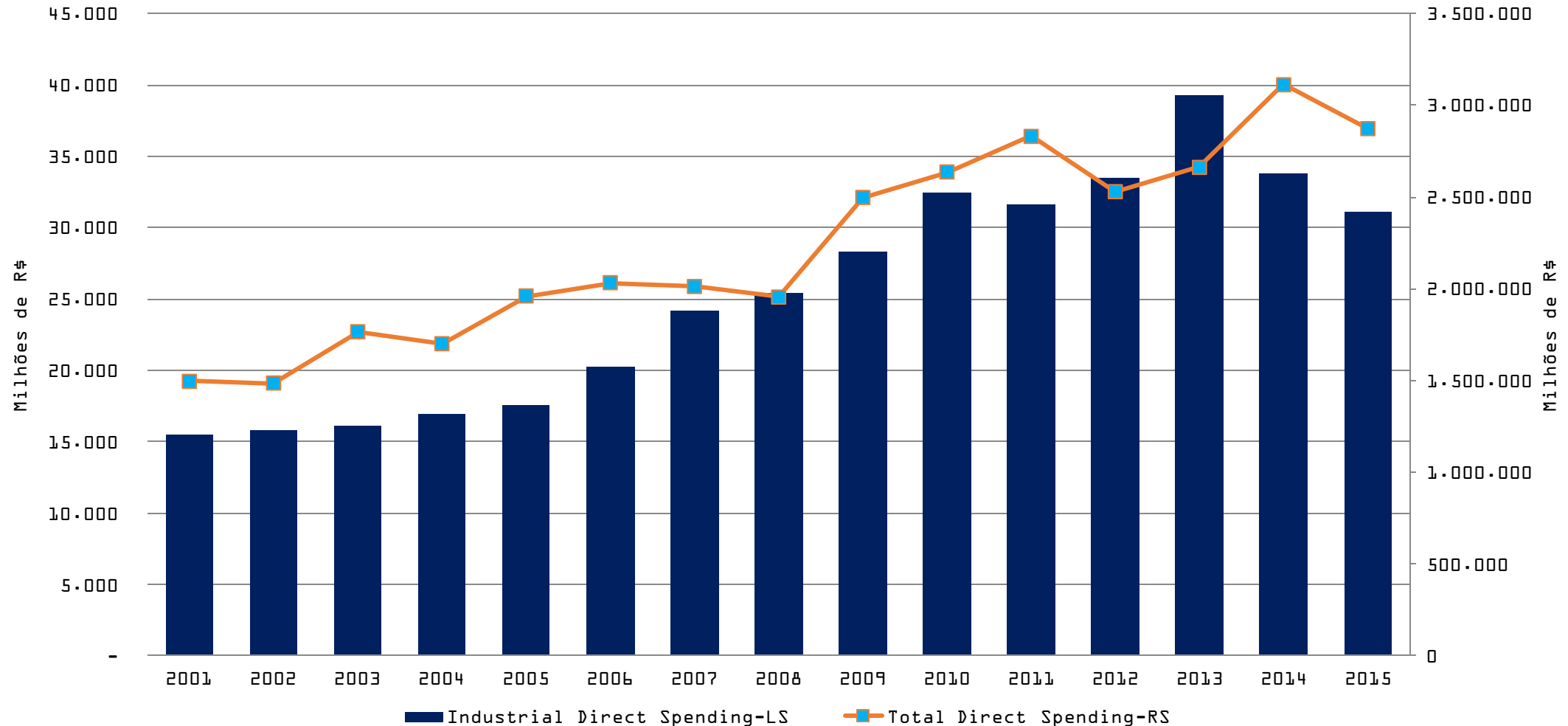


Nota 1: Valores em MM de reais, ano base 2015; Nota 2: Os Fundos Constitucionais são alocados para o Centro-Oeste (FCO), Nordeste (FNE) e Norte (FNO), para financiar empresas de todos os setores produtivos. Nota 3: Fundos constitucionais e fundos de agrícolas estimados antes de 2011

Fonte: Equipe Finance & Markets Banco mundial e Receita Federal do Brasil

As GGs (gastos gerais com as empresas) também aumentaram, para 0,5% do PIB

Gastos Gerais (Gastos Diretos)

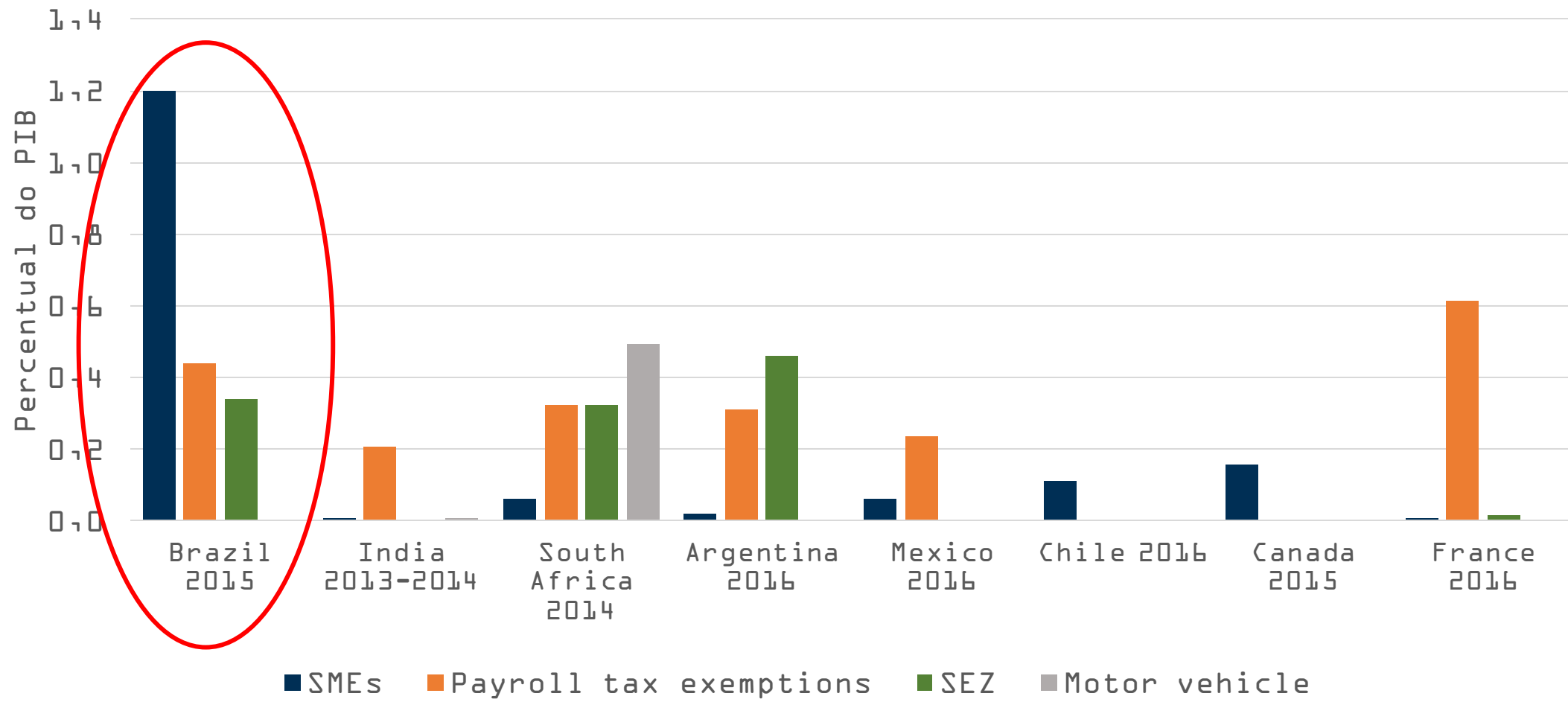


Fonte: Receita Federal do Brasil

Nota: Valores em MM de reais, ano base 2015

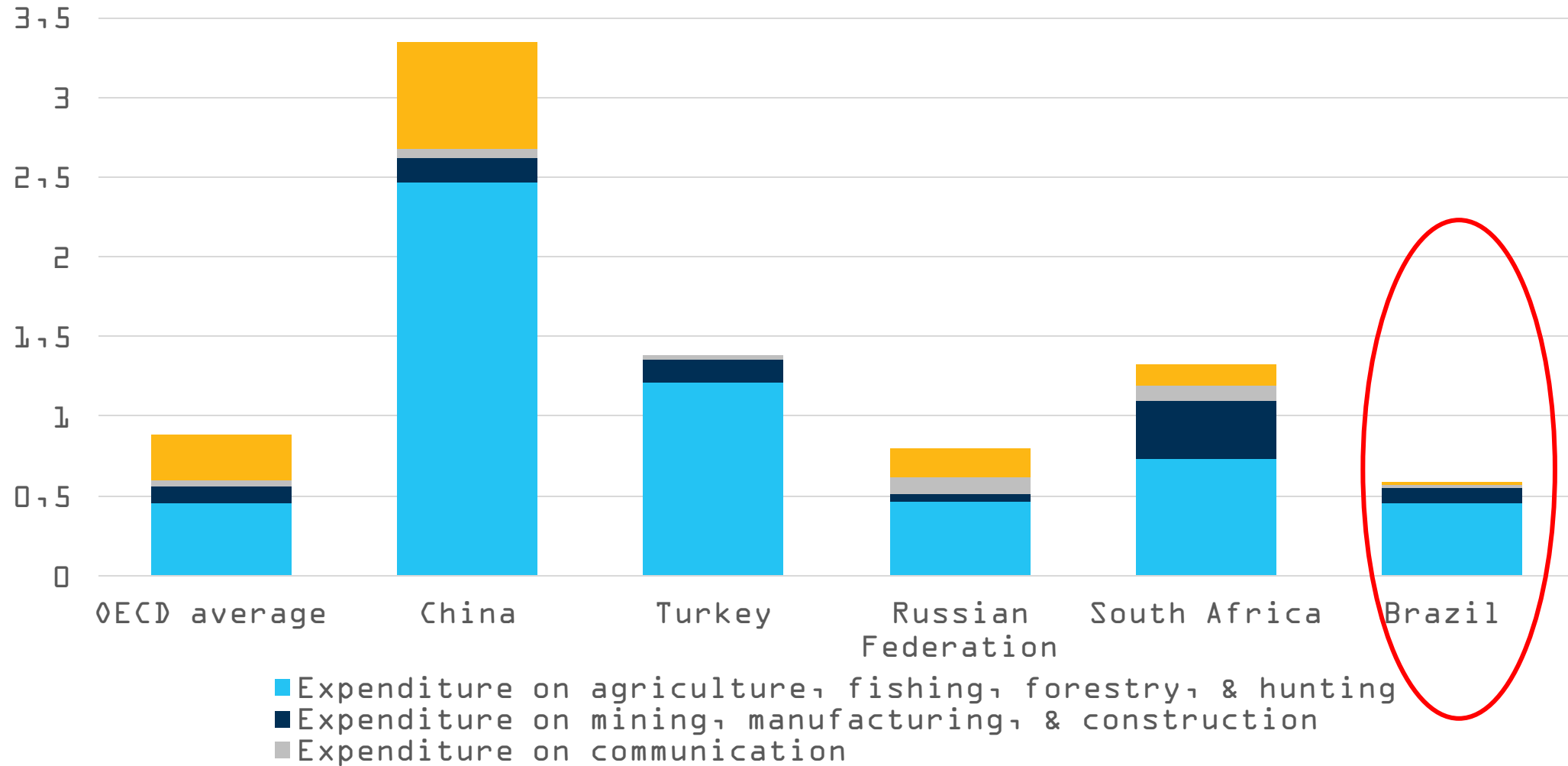
VS programas voltados para as pequenas e médias empresas e GTs na folha de pagamentos são pontos (ruins) fora da curva, ou "outliers".

Programas de GT selecionados (% do PIB)



As GGs são usadas com menos frequência no Brasil

Gastos com Assuntos Econômicos, em % do PIB, 2014
(categorias selecionadas por meio do GFS da COFOG)



A eficácia e eficiência das políticas não foram suficientemente documentadas

- **Faltam avaliações rigorosas**

- Ainda existem lacunas

- Necessidade de avaliação sistemática dos programas

- Necessidade de acesso mais transparente aos dados

- (BNDES & Receita Federal devem seguir as melhores práticas internacionais em matéria de acesso a dados)

- **Próximos slides: visão-geral das análises disponíveis sobre os principais programas**

- GTs: Simples, Desoneração da folha, ZFM, Inovar-Auto, Lei do Bem
 - CS: Programa de Sustentação do Investimento (PSI)
 - GG: Embrapa / Fiocruz; construção naval; Pronatec-MDIC

Exemplo 1. *o Simples é caro e pode causar distorções*

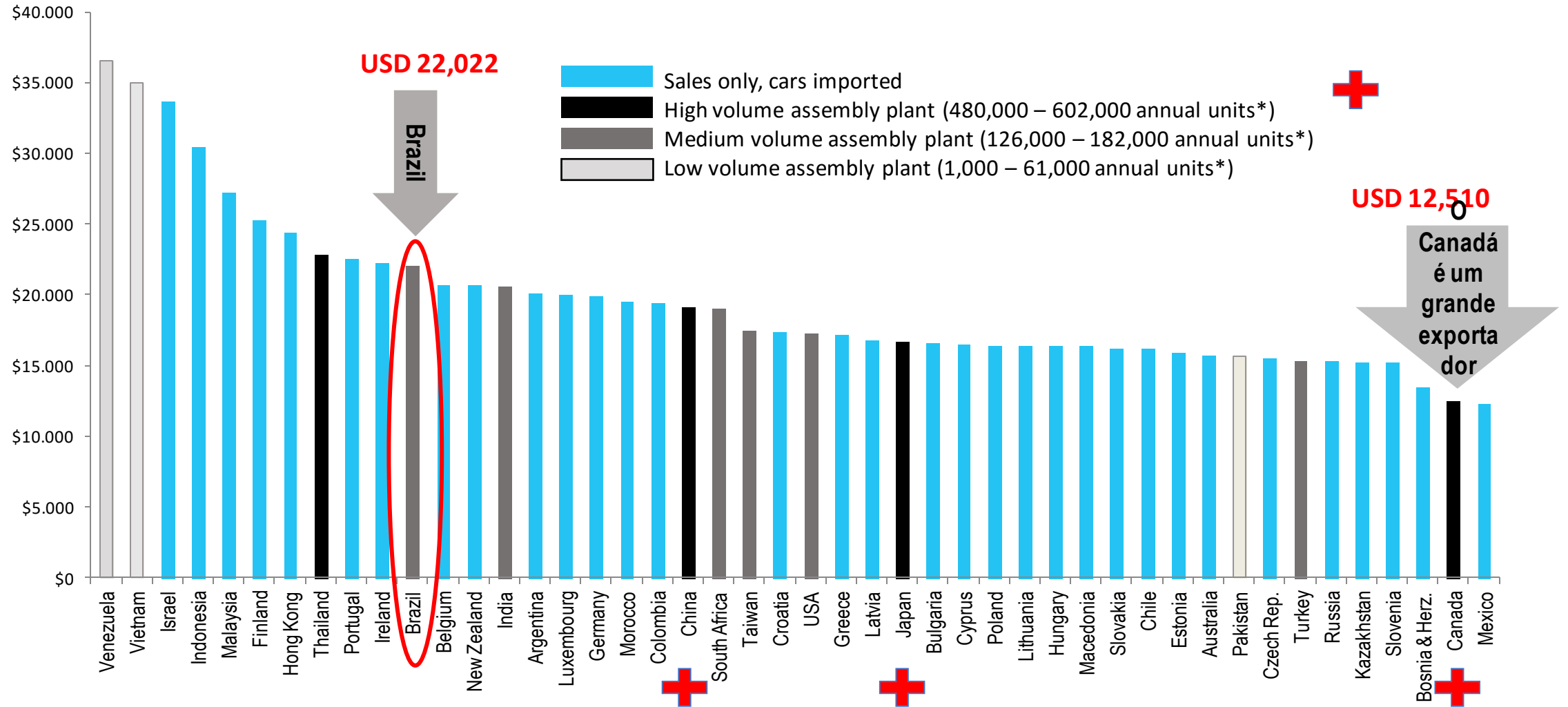
- *DTs: Simples Nacional*
- **Objetivo:** formalizar as PMEs (reduzindo os encargos fiscais e administrativos)
- **Efetivo?** Evidências inconclusivas sobre a formalidade das empresas + potenciais distorções na escolha de insumos intermediários
- **Evidências internacionais?** A maioria dos programas de formalização (ou seja, redução dos custos operacionais por meio de simplificação fiscal, e também reformas no acesso e divulgação de informações) tem impacto limitado. Os esforços para aprimorar o cumprimento da lei apresentam melhores resultados
- **Eficiente?** Custo fiscal alto (1,2% do PIB), consequências não-intencionais sobre a produtividade quando as empresas se mantêm pequenas, prejudicadas pelo regime diferente em que se enquadram os microempresários individuais; probabilidade da carga tributária seguir um padrão de U invertido, deixando as empresas de médio porte em situação de desvantagem competitiva

Exemplo 2: AS desonerações da folha de pagamentos mantêm os empregos com custo alto

- *DTs: Desoneração da Folha*
- **Objetivo:** Gerar / proteger empregos
- **Efetiva?** Não está claro; se for, o efeito é limitado e há dúvidas se novos empregos estão, de fato, sendo criados ou se há um deslocamento do setor informal para o formal. O meta-estudo da Fazenda constatou um impacto limitado na taxa de emprego
- **Evidências internacionais?** Inspirada em programas europeus, adotados em circunstâncias completamente diferentes (MF 2015) - elas aumentaram os salários, mas a criação de novos empregos foi limitada / inexistente (p. ex., Chile, Argentina, Suécia e Finlândia); foi identificada uma redução do trabalho informal na Colômbia
- **Eficiente?** Alto custo fiscal (0,4% do PIB) e alto custo por emprego criado, 3x o salário do trabalhador

◊ Inovar-Auto aumentou os preços para o consumidor

(preço de venda anunciado para o modelo básico do Toyota Corolla 2017)



Exemplo 3. O desempenho dos incentivos à inovação (pesquisa e desenvolvimento) ficou abaixo do esperado

DTs: Lei do Bem

- **Objetivo:**

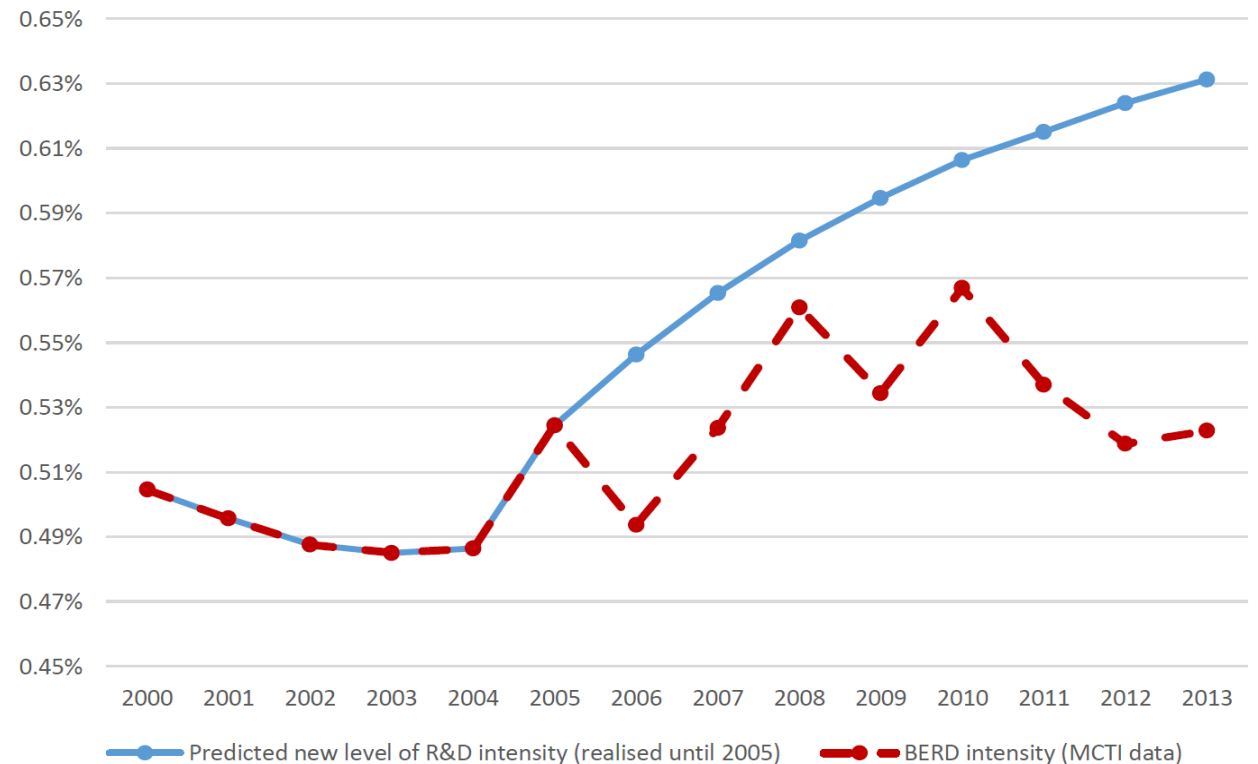
Apoio à Pesquisa e Desenvolvimento (P&D) empresarial

- **Efetivo?**

Intensidade das atividades de P&D abaixo do esperado

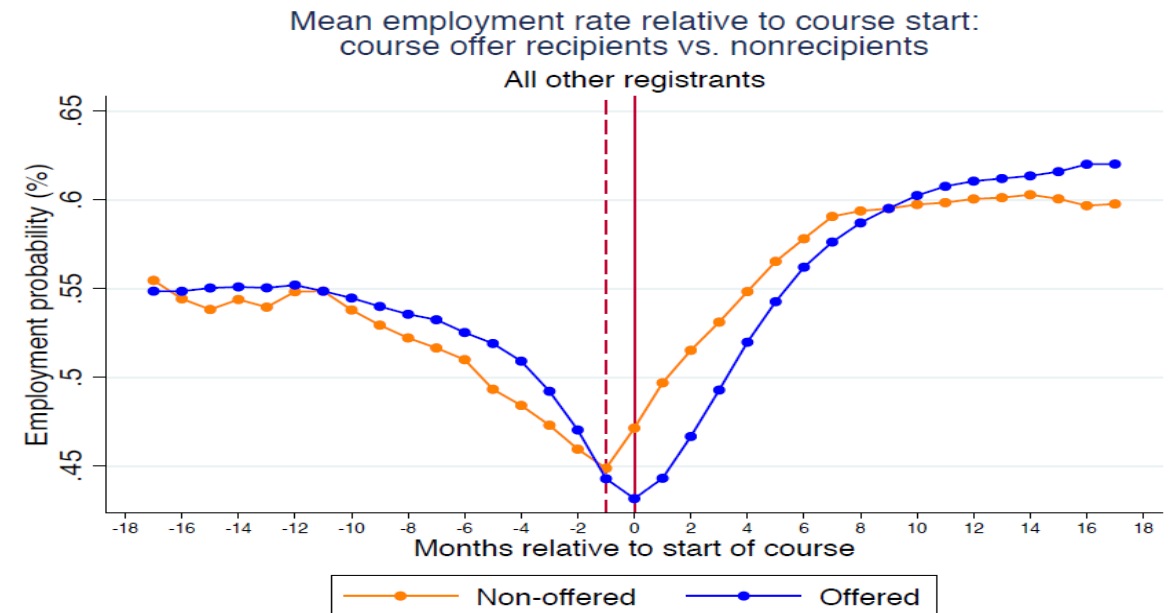
- **Eficiente?**

Não chega até a maioria das novas ou pequenas empresas



Exemplo 4. \emptyset Pronatec-MDIC ajuda os trabalhadores a se capacitar e encontrar empregos por meio de uma estrutura orientada por negócios, mas a um custo relativamente alto

- **Objetivo:** Capacitar o trabalhador com base nas necessidades identificadas junto ao empregador
- **Efetivo?** Aumenta em 8% a probabilidade de conseguir emprego, com rendimentos mensais mais altos
- **Eficiente?** Baixo custo-benefício: o trabalhador leva 3+ anos após a conclusão da capacitação para gerar renda no emprego equivalente ao custo fiscal do curso (presumindo-se a persistência do emprego)



Maior variedade de impacto das GGs

- *Gastos gerais (GG)*
- **Objetivos:** Grande variedade de programas (principalmente de pequeno porte)
- **Efetivos?**
- Aparentemente, alguns são efetivos: Embrapa, FIOCRUZ, cartão BNDES
 - missão bem focada, disciplina de mercado
- **Eficiente?**
- Outros são ineficazes e ineficientes: Construção naval, CSF

A incidência das Políticas de Apoio às Empresas não é bem compreendida

- Não há evidências rigorosas (dados empresariais e familiares) sobre a incidência dos programas
- O efeito direto provavelmente é regressivo na maioria dos programas: favorece grandes empresas já estabelecidas ou empregos formais
- Pouca evidência de efeitos refletidos na produtividade, em mais e melhores empregos e nos preços ao consumidor

→ É necessária um análise mais aprofundada

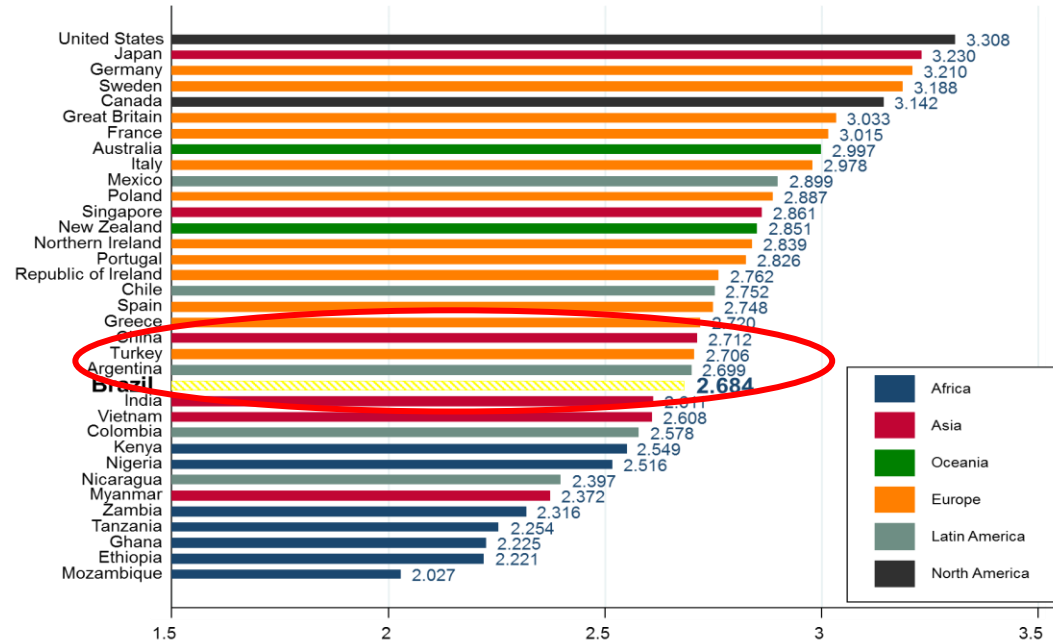
A maioria das políticas de suporte comercial beneficia as grandes empresas

- GTs: *o Simples* beneficia pequenas empresas formais
 - Outros GTs beneficiam, em grande parte, empresas de grande porte já estabelecidas (*ZFM, Inovar-Auto*)
 - A desoneração da folha intensificou o padrão regressivo do sistema tributário (MF 2015)
- CS: Beneficia, principalmente, empresas grandes e dominantes
- GG: Pouco acesso para empresas pequenas ou novas
- Impacto nos preços ao consumidor:
 - ruim (aumenta os preços): *ZF Manaus, Inovar-Auto*
 - bom (reduz os preços): *Fiocruz, Embrapa*

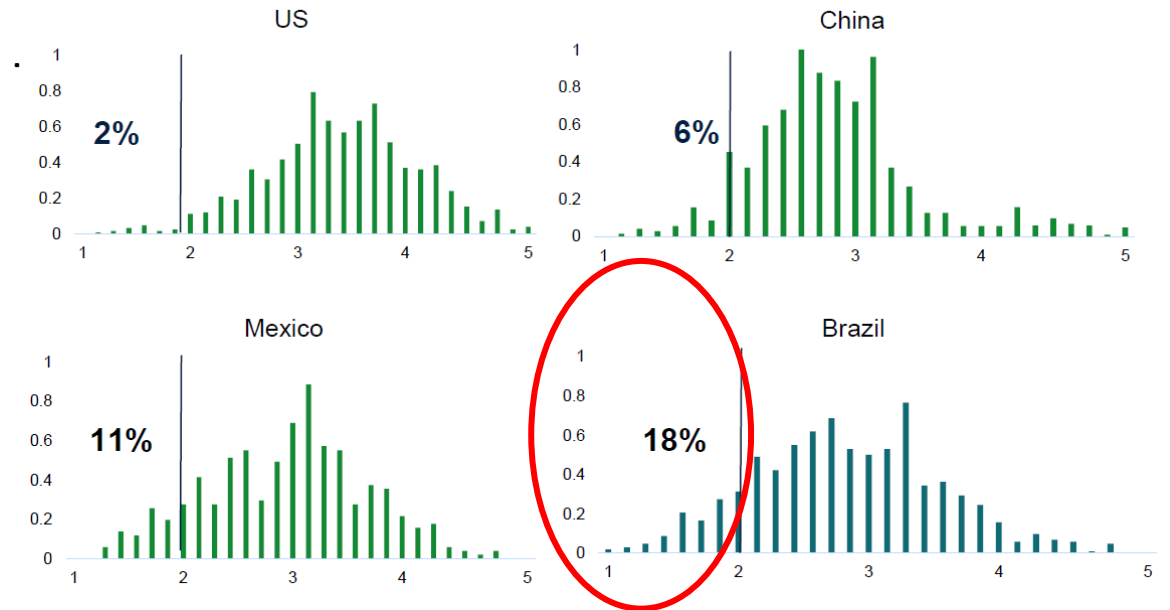
As políticas atuais de apoio as empresas impedem a "destruição criativa"

- A falta de concorrência possibilita a sobrevivência de empresas mal administradas

Qualidade média da gestão (2008-13)



Grande dispersão na qualidade da gestão (2008-13)



Resumo das possíveis economias fiscais

Ações de Política	Eficiência	Patrimônio líquido	Economia Fiscal (% do PIB)
Reformar o <i>Simples</i> (idealmente, a reforma faria parte de um processo mais amplo de simplificação fiscal)	++	?	1,2
Revogar as desonerações da folha de pagamentos (desoneração da folha)	+	?	0,4
Reformar a <i>Zona Franca de Manaus</i> (idealmente, como parte de uma alternativa menos distorcida e menos onerosa)	++	+	Até 0,4
Total			Até 2,0

Áreas que precisam de mais trabalho

1. Avaliação da qualidade do desenho e da implementação das políticas de apoio ao setor privado

2. Mais Avaliações de impacto usando RCTs -
desenhadas ex ante

3. Criar uma institucionalidade da avaliação de políticas de apoio ao setor privado

i. Que programas são avaliados?

ii. Quem avalia os programas?

iii. Que fazemos com a evidencia? - aprendizagem

iv. Quando fechamos/finalizamos os programas

II. Integrando avaliação de processos e avaliação de impacto

Some critical aspects of policy evaluation

2.1 We need to acknowledge the risk of government failure - The innovation policy challenge and the risk of government failure

2.2 We need a framework to decide what policies are appropriate - the capabilities escalator

2.3 Evaluating the whole logical framework - from impact to design -The Public Expenditure Review of STI

2.1 The innovation policy challenge and the risk of government failure

- The innovation paradox

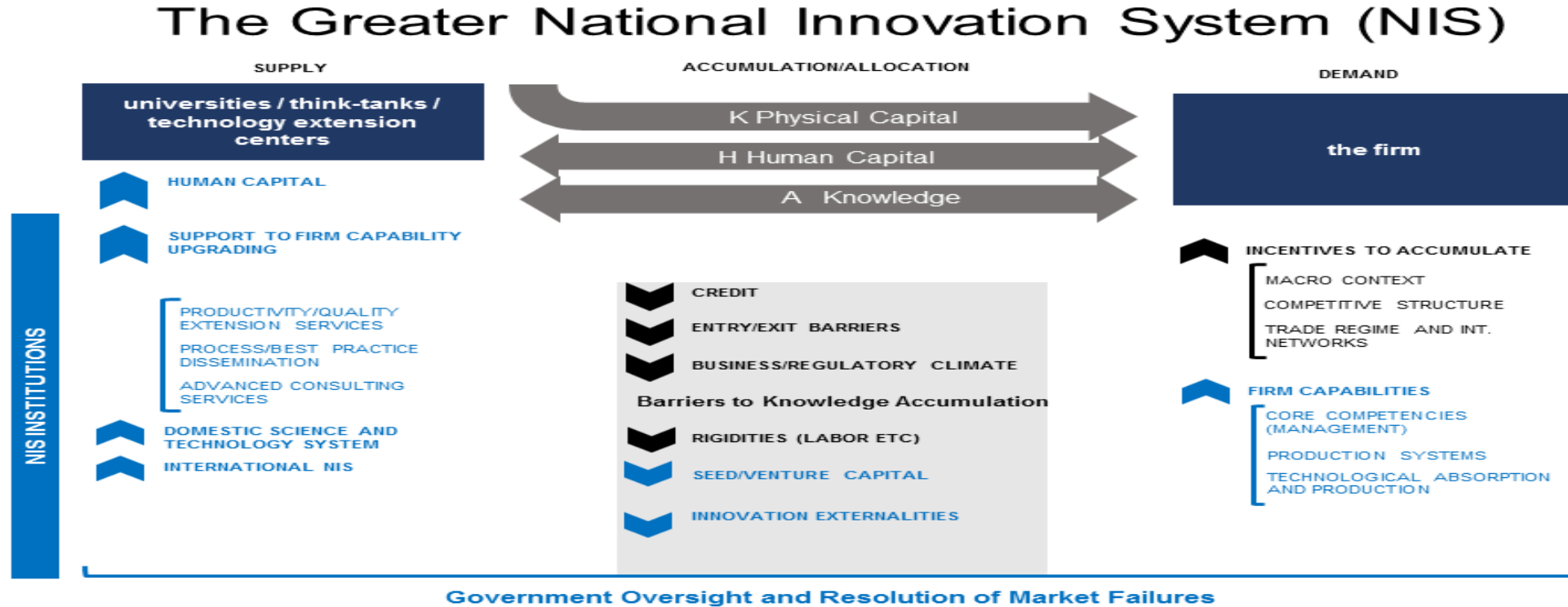
The further away from the technological frontier the higher the dimensionality of issues that need to be addressed- the policy maker needs to pay attention to the entire NIS.

- The innovation policy dilemma - the risk of government failure

However, the further away from the technological frontier the weaker state capability for implementation. The innovation policy paradox: Higher dimensionality problem, but lower ability to solve it - how to solve it?...bare with me

2.1 The innovation policy challenge and the risk of government failure

The National Innovation System



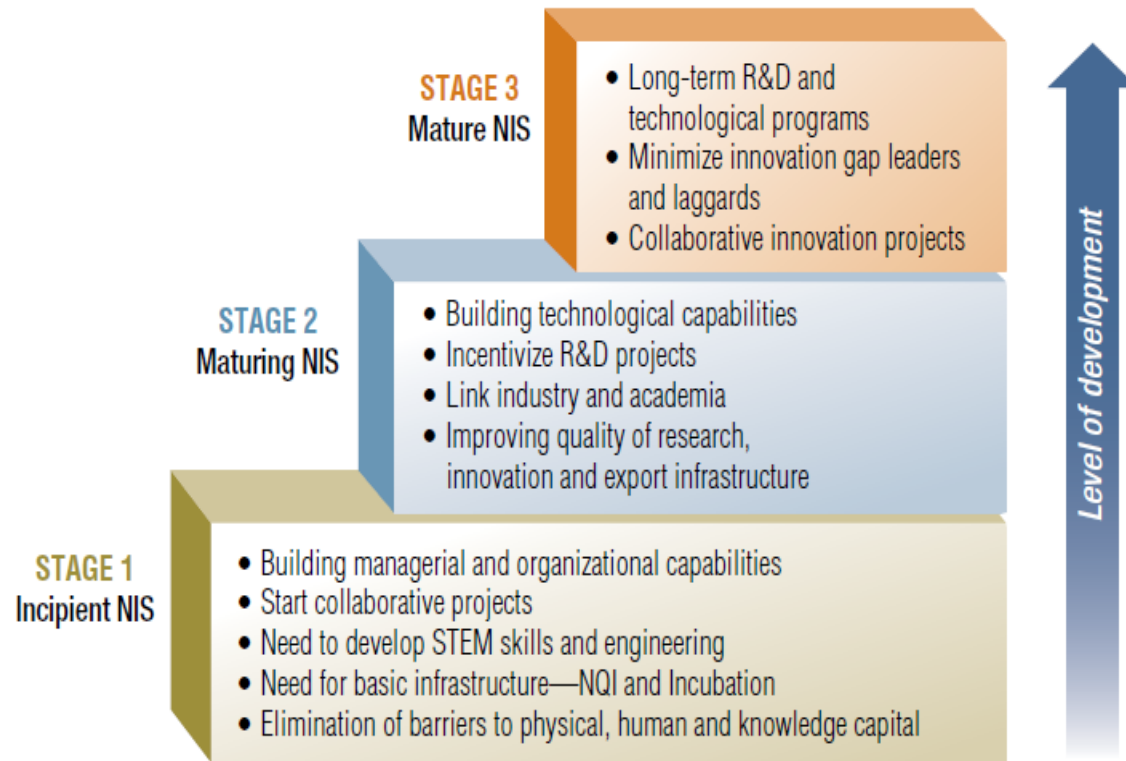
Source: Maloney (2017)

2.1 The innovation policy challenge and the risk of government failure

- Increasing evidence through ecosystem assessments that National Systems of Innovations are fragmented, uncoordinated and with little evidence of impact.
- Existing analysis and evaluations tend to be either too aggregated and institutional or too narrow focusing one program or instrument
- How can we support countries to minimize implementation failure
- Can we respond with greater certainty basic questions?
 - How much is spent?
 - For what?
 - What is the quality and coherence of the policy mix?
 - How efficient is this investment?

2.2 The framework: The capabilities escalator

FIGURE 7.2 The Capabilities Escalator: Innovation Policy Needs

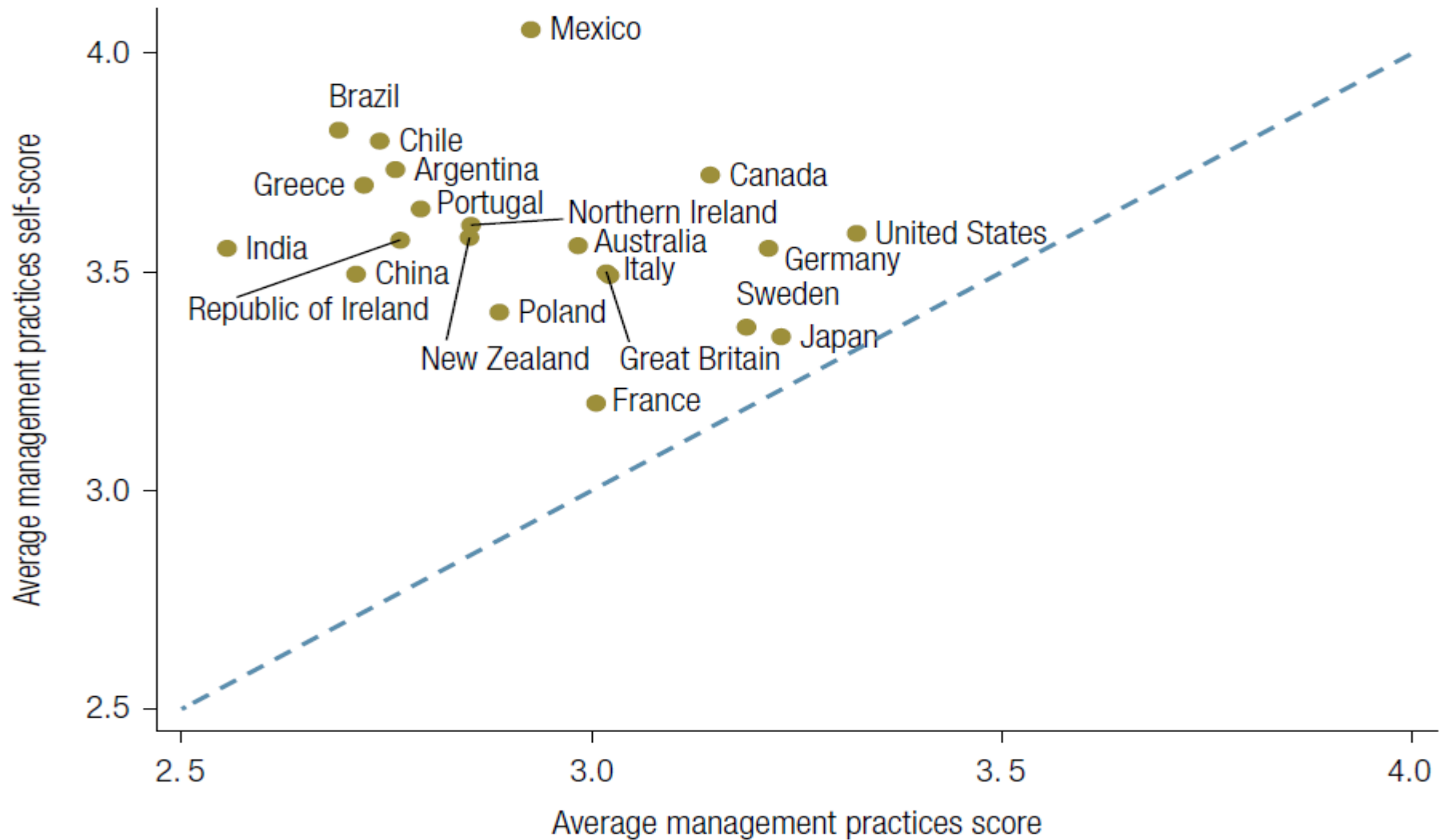


Note: NIS = National Innovation System; NQI = national quality infrastructure; R&D = research and development; STEM = science, technology, engineering, and mathematics.

- Sequence policy mix to build appropriate firm capabilities
- Not deterministic- S&T agenda a project of decades
- But allocate resources to stage where country is weakest

2.2 The framework: The capabilities escalator

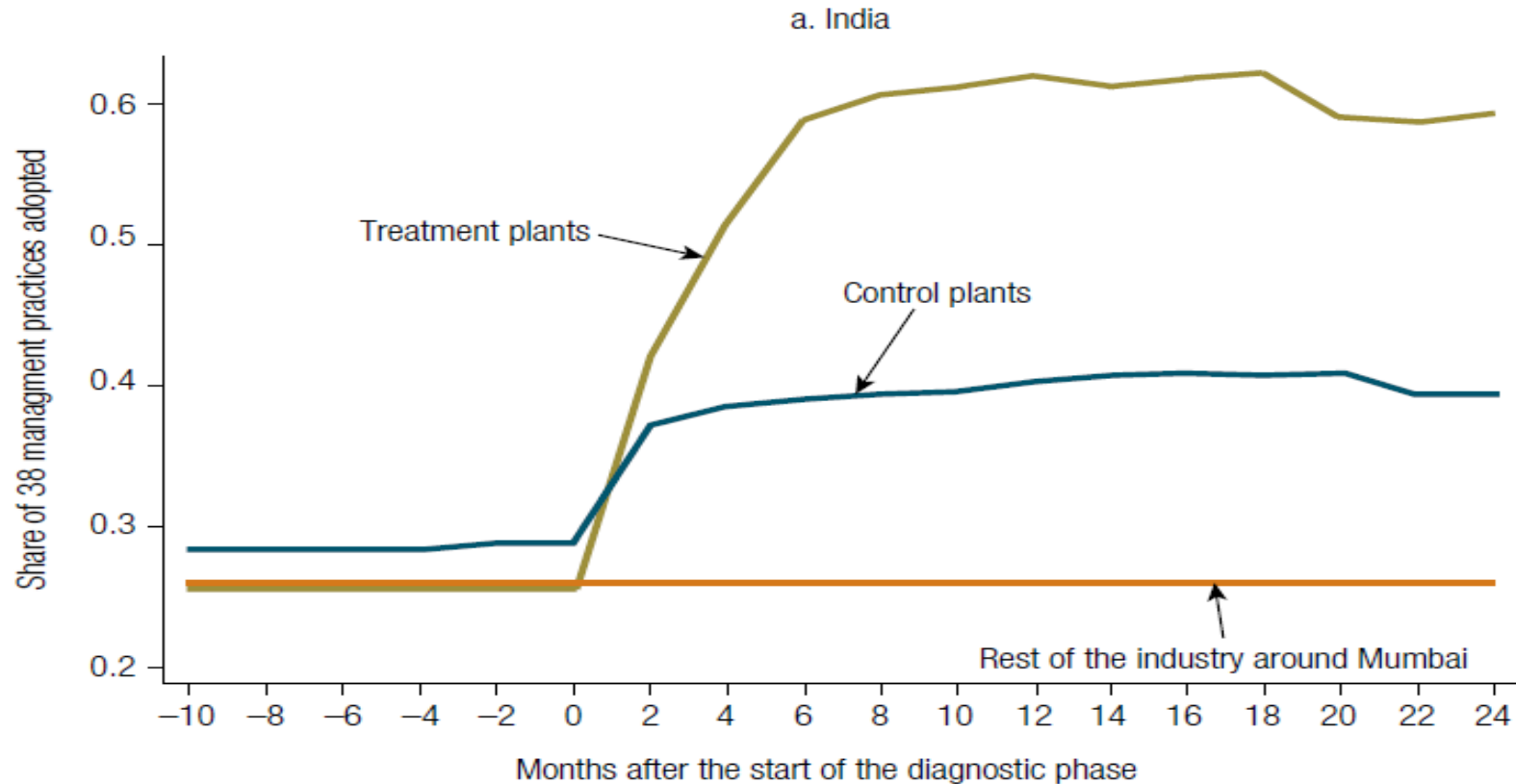
Firms know what they know...



2.2 The framework: The capabilities

Escalator Stage 1: Management Extension Services

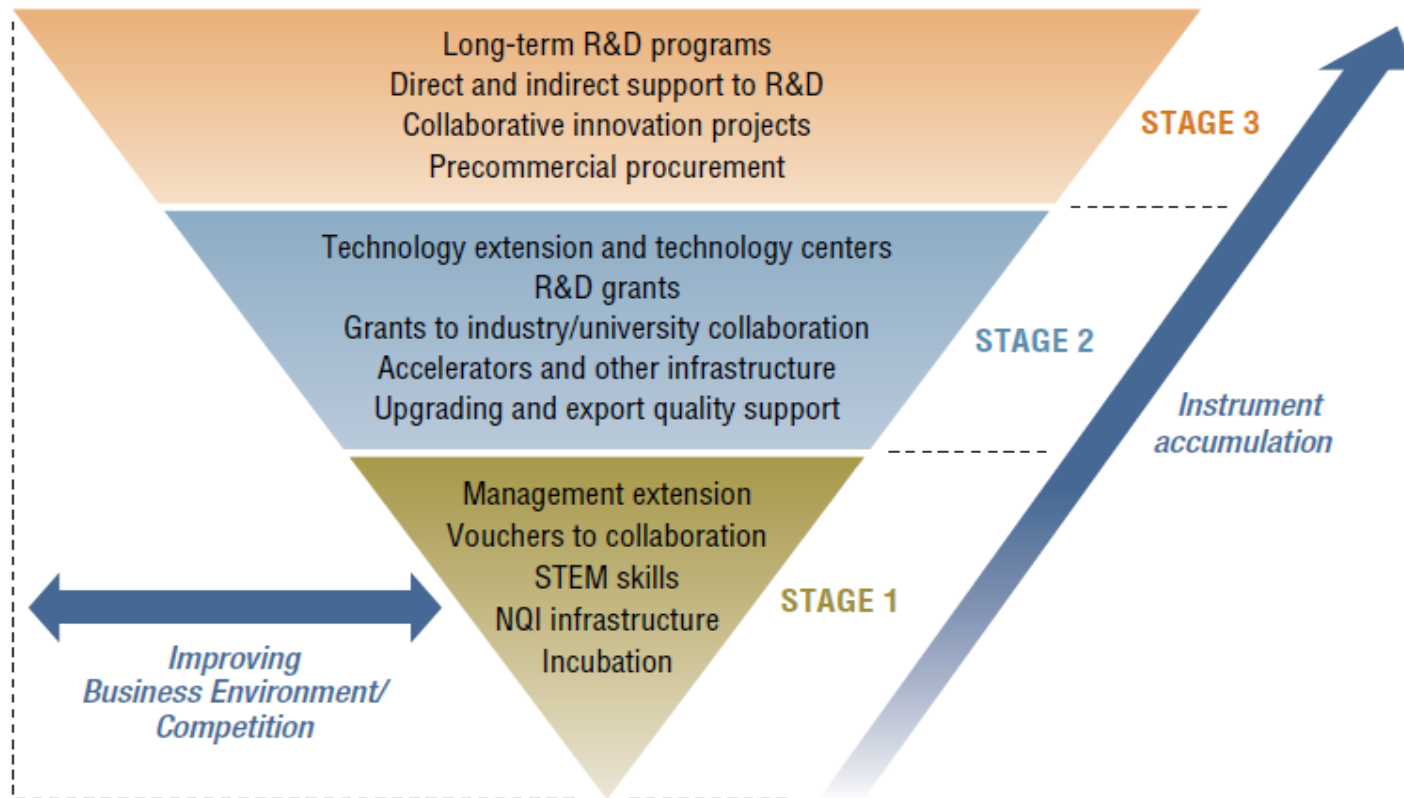
FIGURE 7.4 Management Extension Improved Management Practices in India and Colombia



2.2 The framework: The capabilities escalator

Supporting Firm Capabilities for Innovation The inverted policy mix

FIGURE 7.3 The Capabilities Escalator: The Policy Mix Evolves from Less to More Sophistication



Note: NQI = national quality infrastructure; R&D = research and development; STEM = science, technology, engineering, and mathematics.

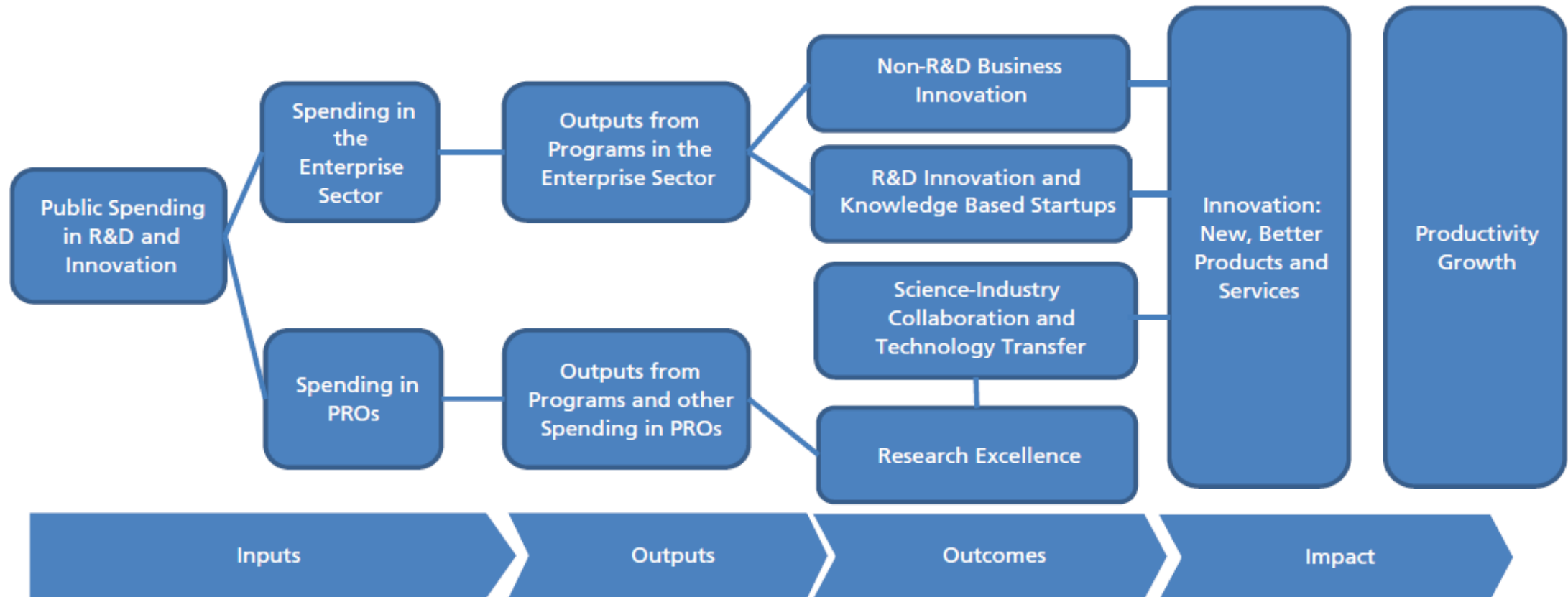
2.3. Evaluating from design to impact. The PER

The Public Expenditure Review on STI has 2 objectives

- To assess whether government's allocation of resources has an impact on STI outcomes - through the quality and coherence of the policy mix; the quality of design, implementation and governance; its efficiency and its impact.
- To help countries improve their capacity and quality of their STI policies. This includes building governments' capacity to design, implement and monitor STI policies and to

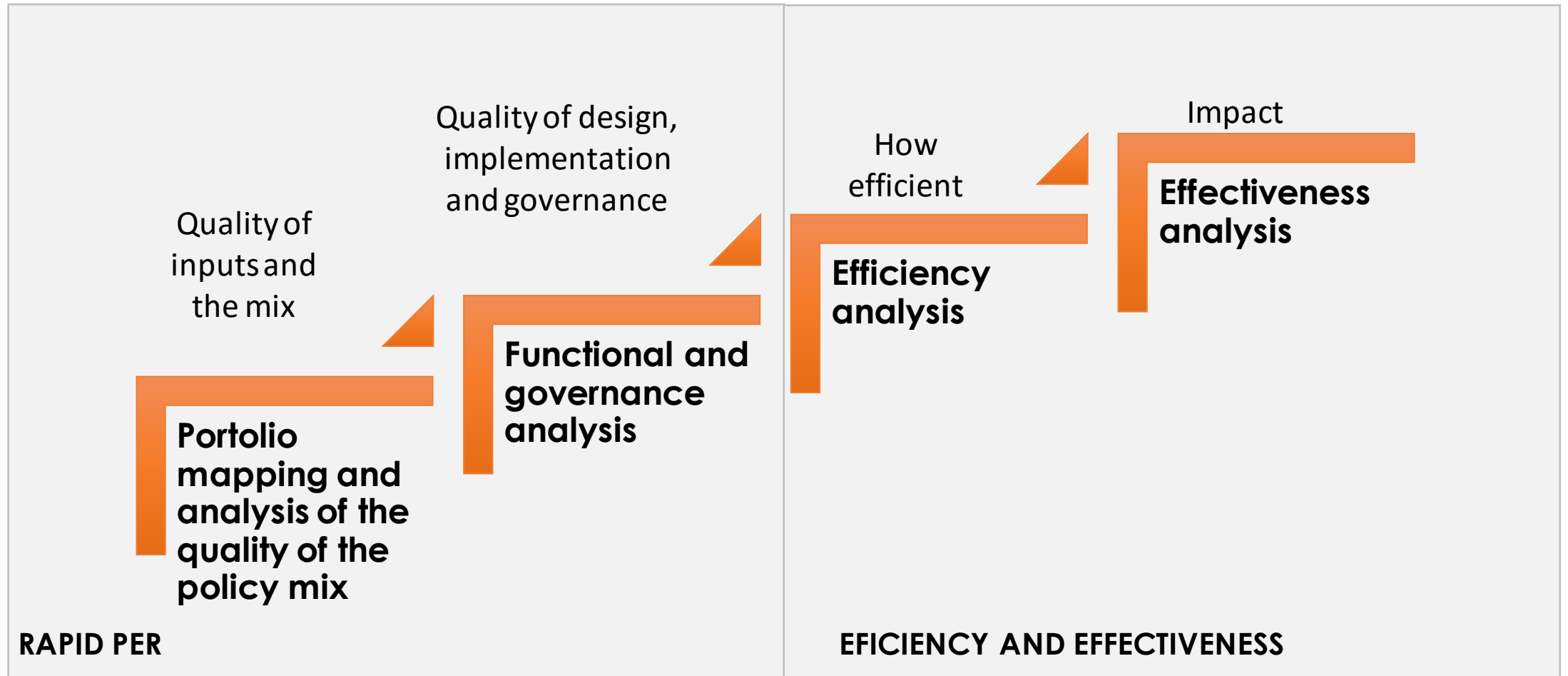
Methodology

Public Expenditure Review based on Correa (2014)
-follows logical framework of an STI intervention



Methodology

Analysis in 4 stages



Methodology

Main objectives part I:

- Provide a characterization of the existing policy mix and evaluate its quality and coherence in order to identify gaps and redundancies.
- Assess the quality of the design and implementation of existing programs, and the extent to which the policy mix is considered in the design of specific instruments.
- Provide recommendations to improve the quality of design, implementation and governance of innovation policies based on international best practices

Methodology

Scope and Tasks

- Country context and mini-ecosystem diagnostic

Basic analysis of the different pillars of the ecosystem in order to understand the demand for innovation and framework conditions

- Mapping the policy mix and policy mix quality and coherence

Mapping will allow the analysis of the policy mix at different levels, from aggregate objectives and consistency with existing policy frameworks to the type of beneficiaries they support.

- Functional and governance analysis

The analysis will allow the evaluation of the quality of design and implementation in relation to best practices for a sample of instruments, as well as their governance in relation to the policy mix

Methodology

Scope and Tasks part II

- Efficiency analysis - Improve the efficiency in which a sample of instruments use of resources.

Detailed costings of instruments.

Comparison of relationships between inputs and outputs

Surveys of beneficiaries

- Effective analysis - Evaluate the impact for a sample of instruments

Ex post evaluation of a sample of programs depending on data availability

Development of an impact evaluation plan to support the choice and design of impact evaluations.

Identify opportunities to improve the policy mix

- Brief description and context of the country - economic structure, productivity and innovation performance and benchmarking and institutional framework of STI based on secondary sources
- A characterization of the existing policy mix
- How does it respond to the economic structure, existing innovation performance and the demand for public support
- Analysis of internal coherence of the policy mix and alignment with overall strategies and policy frameworks
- Identification of redundancies, problems with the scale of the programs, the regional

Approach to policy mix analyses

Step	Illustrative guiding questions
Mapping of policy instruments	<ul style="list-style-type: none"> ▪ What is the composition of the mix of policy instruments? ▪ How have resources been allocated across the set of instruments? ▪ How balanced are its goals? ▪ What is the distribution of instruments across agencies and departments? ▪ What is the profile of target beneficiaries aimed at by the mix? ▪ To what degree has each instrument penetrated segments of micro, small and medium firms? ▪ What is the geographical outreach of the mix of instruments? ▪ What is the pattern of disbursement for each of the instruments over time?
Internal coherence in the composition of the policy instrument mix	<ul style="list-style-type: none"> ▪ What is the composition of the policy mix relative to the space of all possible instruments aiming at the same objectives (i.e. international comparison)? ▪ Is there a balance of goals and intended beneficiaries? ▪ Is the choice of instrument consistent with its intended goals? ▪ Is the scale of instruments and programs appropriate?
Consistency across the composition of the policy instrument mix	<ul style="list-style-type: none"> ▪ Does the mix of instruments presents conflict, neutrality or complementarities? ▪ What has been the intensity of co-deployment of instruments by target firms, regions? ▪ Is the sequencing across instruments appropriate?

Matrix portfolio mapping

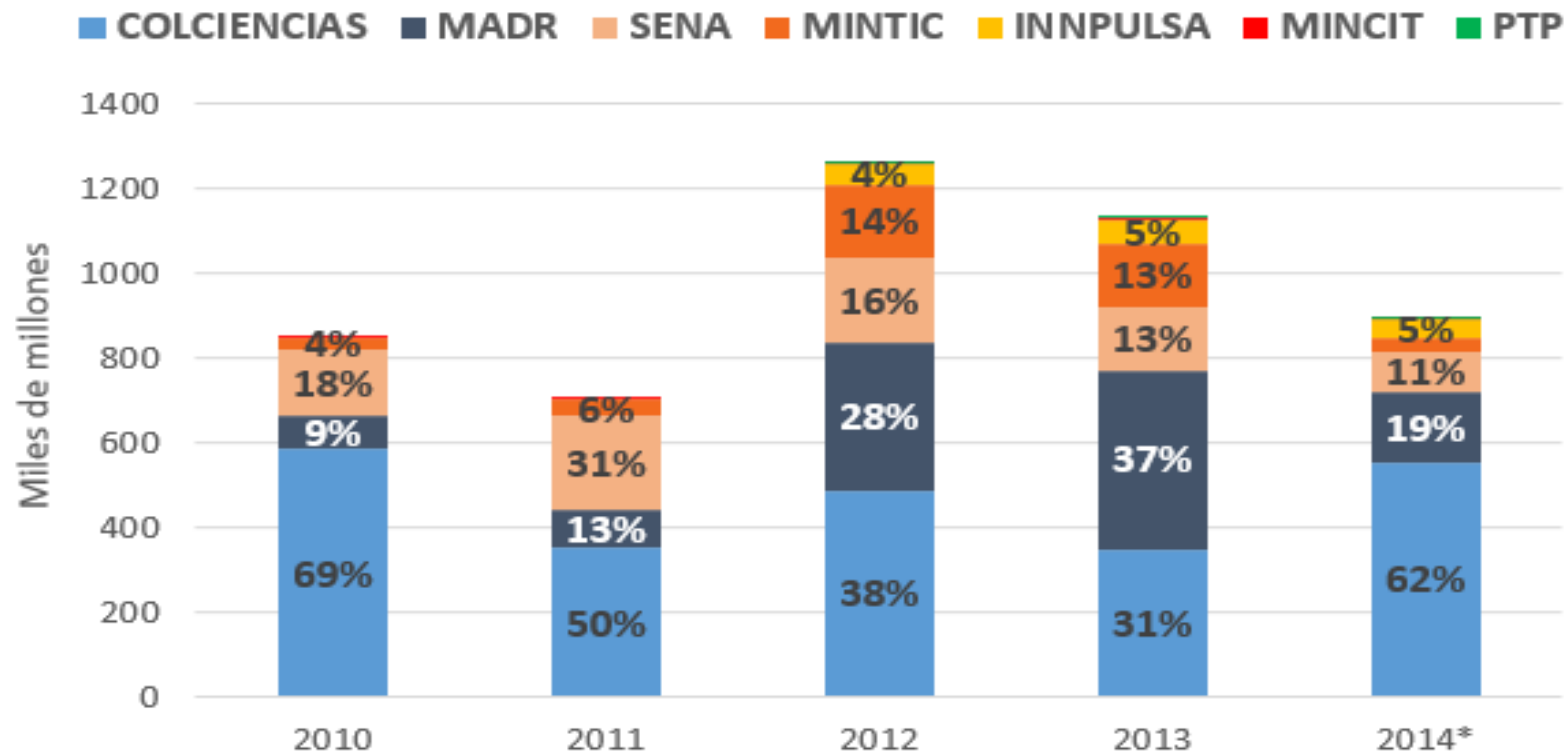
Dimensions

- Overall objectives of STI- new businesses, diversification, skills,...
- Intermediate STI objectives - R&D, research excellence,...
- Mechanism of intervention - matching grant, loan guarantees,...
- Type of research - applied vs basic
- Regional coverage
- Type of beneficiaries
 - Firm life cycle - seed and pre-seed, startup, young, growth, mature
 - Type of innovator - non-innovator, potential innovator, innovator,...
- Vertical vs horizontal instruments
- Budget funding

The STI Policy Mix

High volatility of budget - importance of political commitment

Budget by Institution 2010-2014

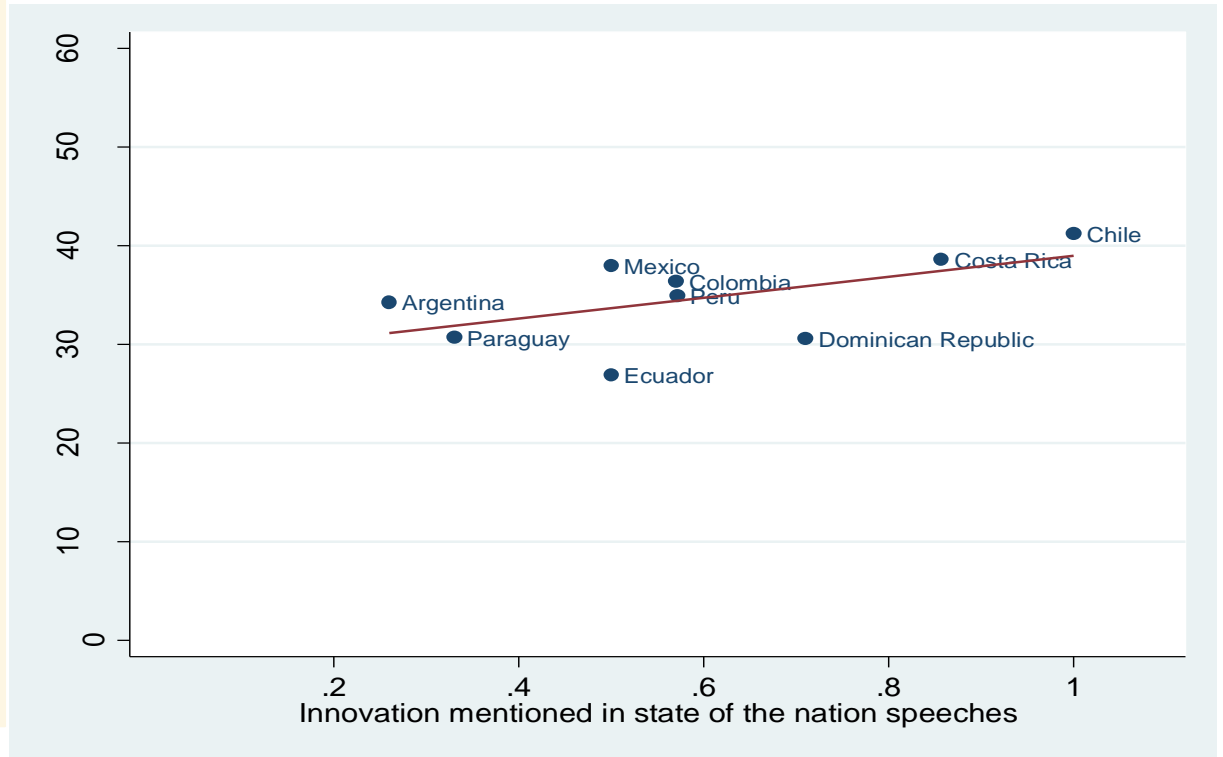
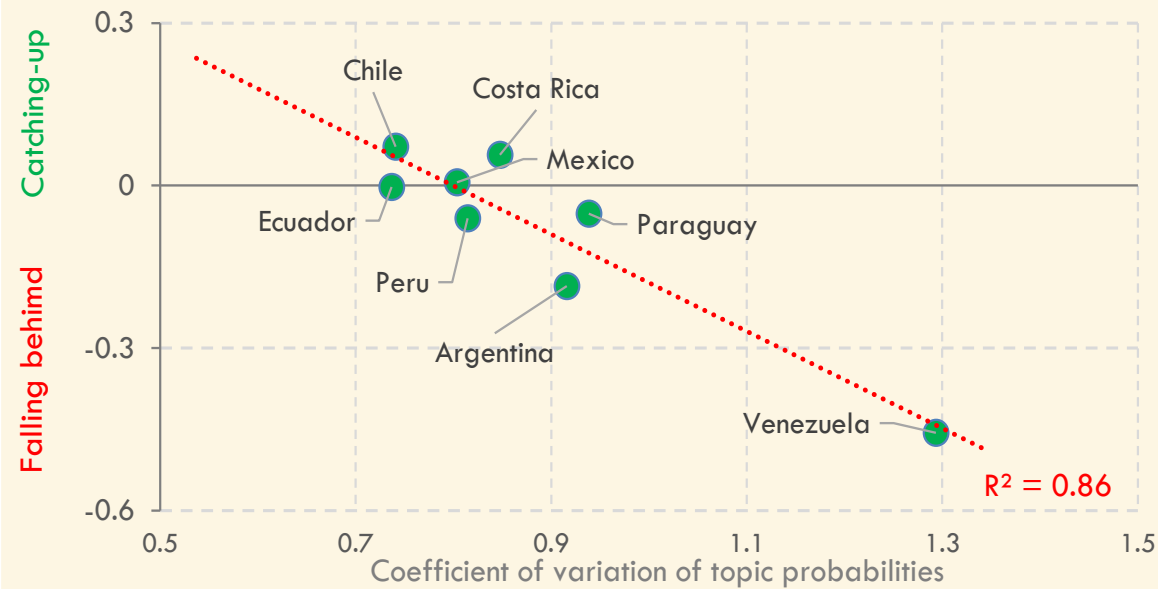


The STI Policy Mix

Political commitment pays off

Winners never quit and quitters never grow?

Policy discontinuity and Δ in % US GDP per capita, 1950-2010

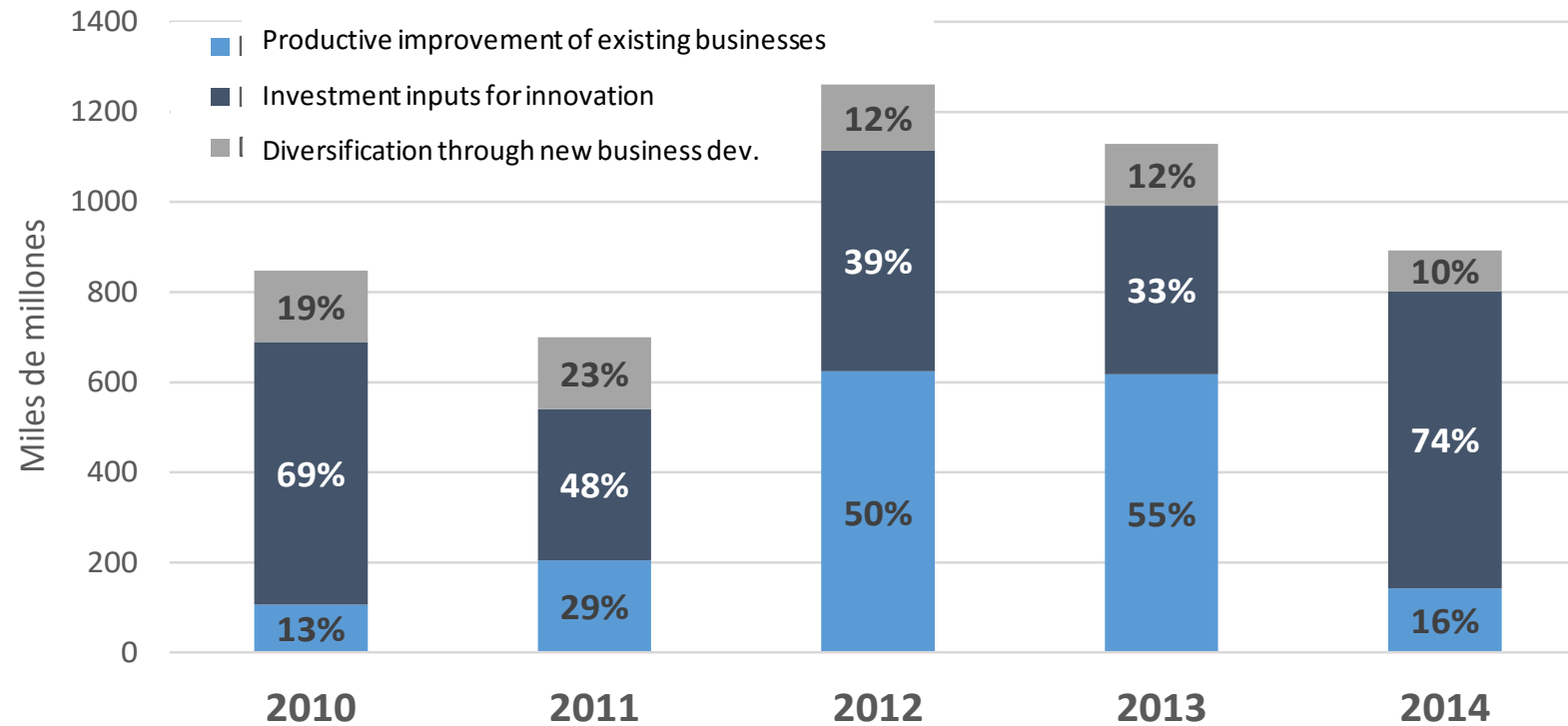


Source: Calvo, Eizmendi and Reyes (2017)

The STI Policy Mix

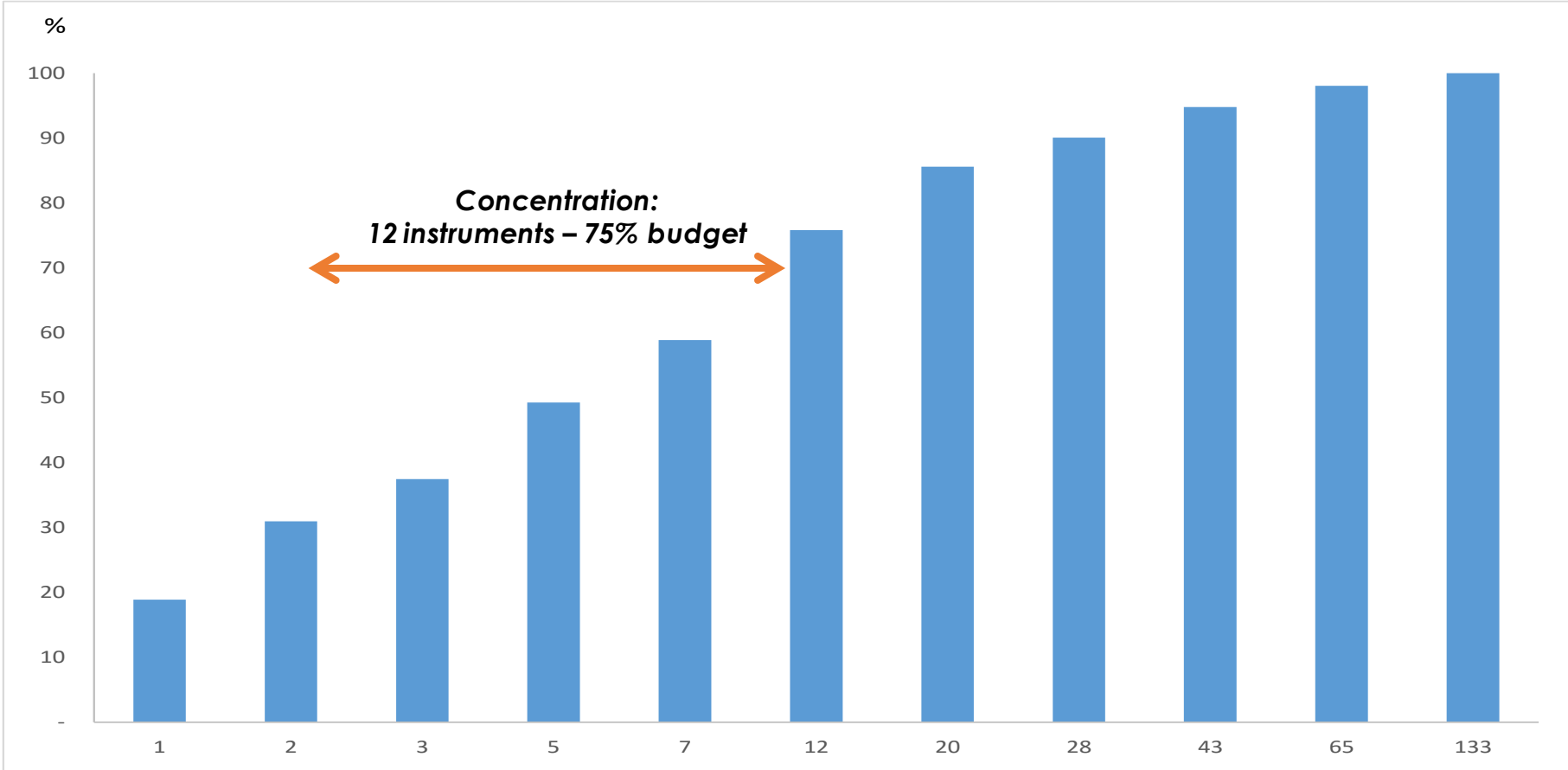
Mismatch budget allocation with the objective of diversification

Budget by objective 2010-2014



The STI Policy Mix

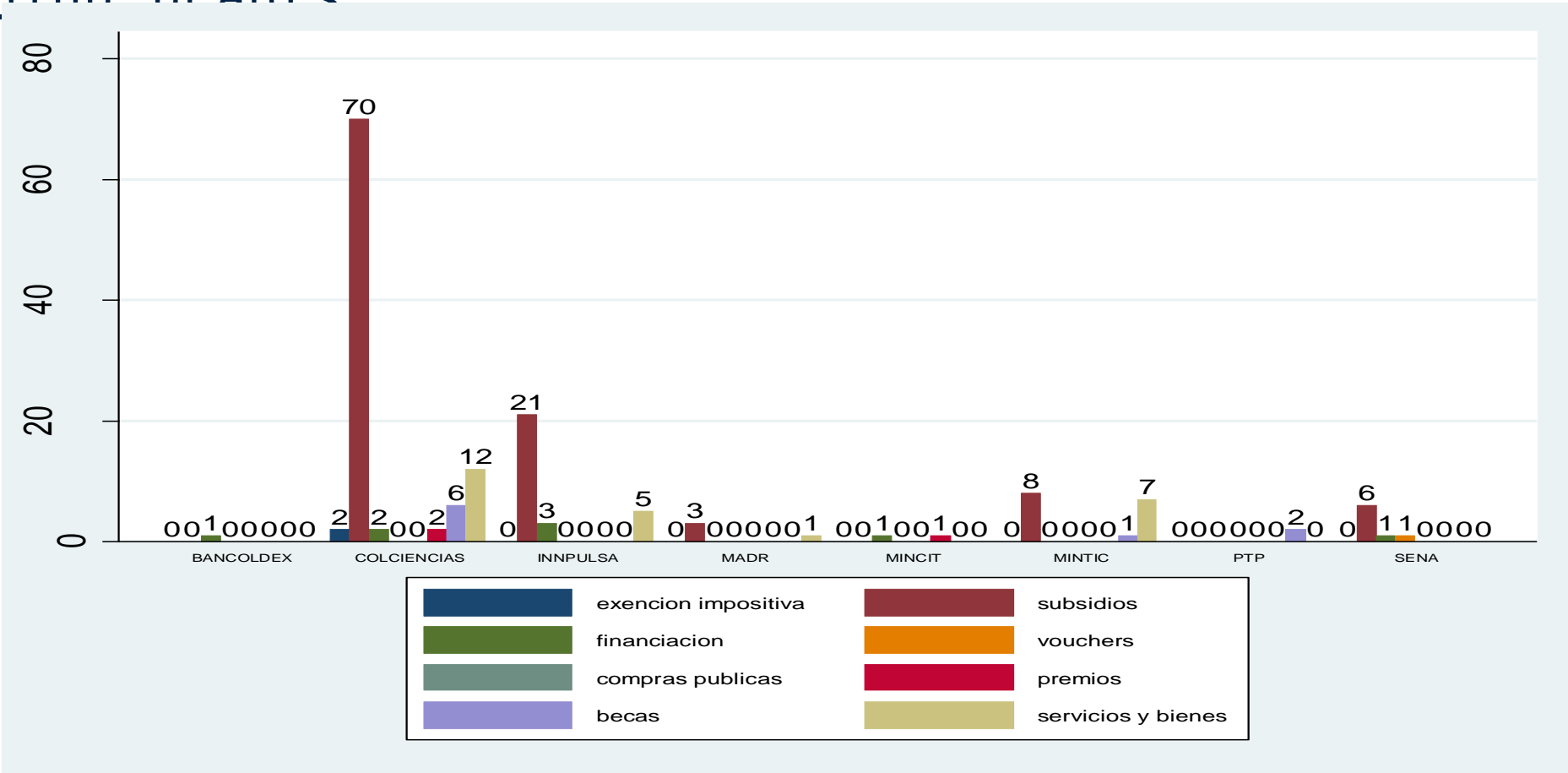
Large budget concentration



Numero de programas

The STI Policy Mix

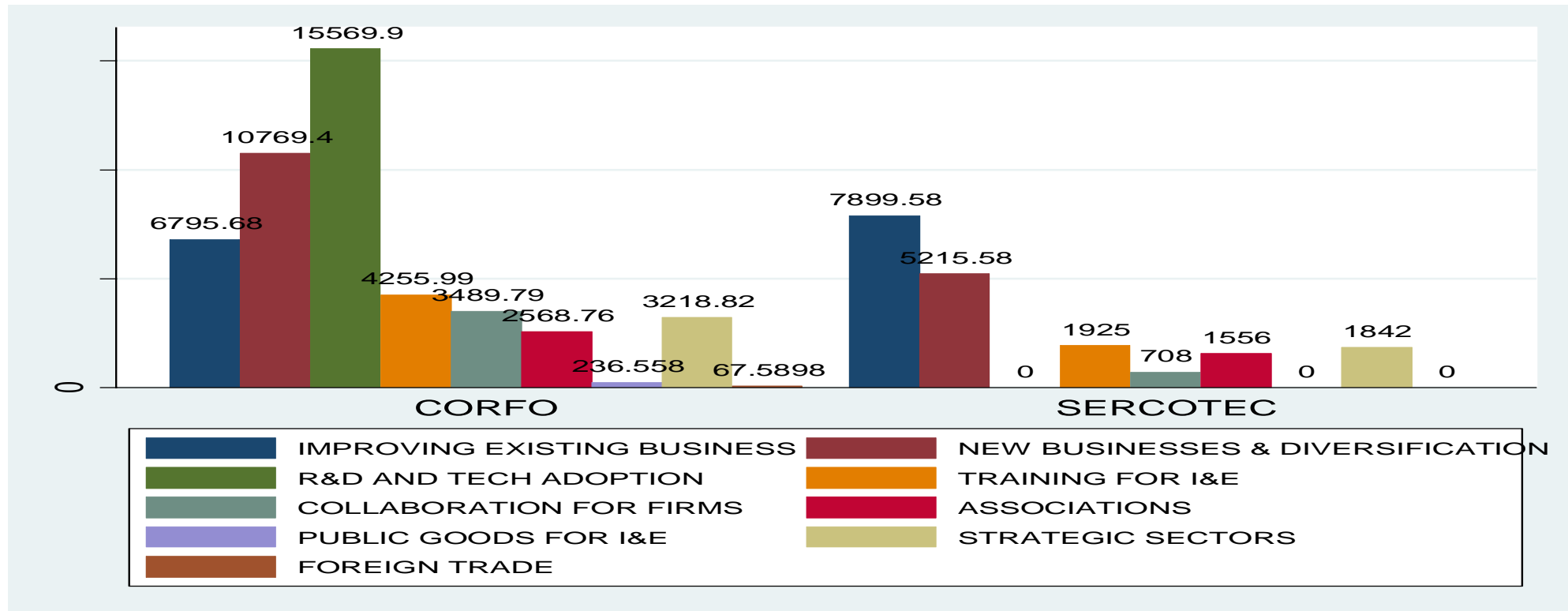
High Concentration of direct support using matching grants



The policy mix

- The allocation of resources between innovation, supporting new business creation and diversification of existing businesses is coherent with the policy needs and objectives to change the economic structure and increase productivity.

Budget First semester 2016 – excluding finance instruments



Functional Analysis

Establishing a rationale for innovation policies and informing design

Box 5.2 Good innovation policy design checklist

The project management and innovation literatures identifies the following key dimensions of good innovation policy design (RIME). These are evaluated in the PER review process.

1. Rationale:

- Is there a documented market or system failure to be addressed?
- Is there a clear statement of goals, beneficiaries, and measureable outcomes?
- How will the proposed solution interact with the rest of the policy mix?
- Does the proposed solution take into account how local context may make an alternative policy more efficient?
- Does the measure consider the relative strengths of the public and private sectors?
- Has the proposed solution anticipated potential capture in its design?

2. Intervention Model:

- Is there a logical model integrating theory, assumptions, and how inputs lead to outcomes and impacts.

3. Monitoring and Evaluation methods.

- Are there Monitoring and Evaluation (M&E) approaches and systems set up at the design stage?
- Are there clear procedures for M&E feedback to inform the evolution of policy?

Functional Analysis

Implementing innovation policy effectively

- Measure, learn and adapt- A pilot can only be a pilot if evaluated - otherwise is anything but a pilot
- Managerial practices matter - Rasul and Rogger (2016) show for Nigerian public infrastructure projects - better managed projects better outcomes
- Follow a logical model of the intervention
- Financial and human resources are important - what are the incentives of the staff managing innovation

Functional Analysis

Having good practices during implementation

The good implementation model of innovation policy – a checklist

Learning

- . Knowledge management – clearly define knowledge management systems and provide codified and accessible information.

Policy tool implementation

- . Solicitations and project management – when solicitations and call for proposals are not originally planned it is important to provide a good justification and explanation of how changes align to the original plan.
- . Participant selection practices - disseminate criteria for selection ex ante, define the appeal mechanism and provide for evaluation by external experts.
- . Application procedures –requirements to apply should be easy to understand, and documentation requirements should be minimal, focusing on what is necessary for the program.
- . Program information management – digital database with all the information on applicants should be systematized and accessible.
- . Finalization of participation in the program – establish ex ante when a beneficiary’s participation in a specific policy support program ends, and ensure that the end is connected to an assessment of the achievement of the policy’s goals and that collection of outcome information continues during the life of the project.

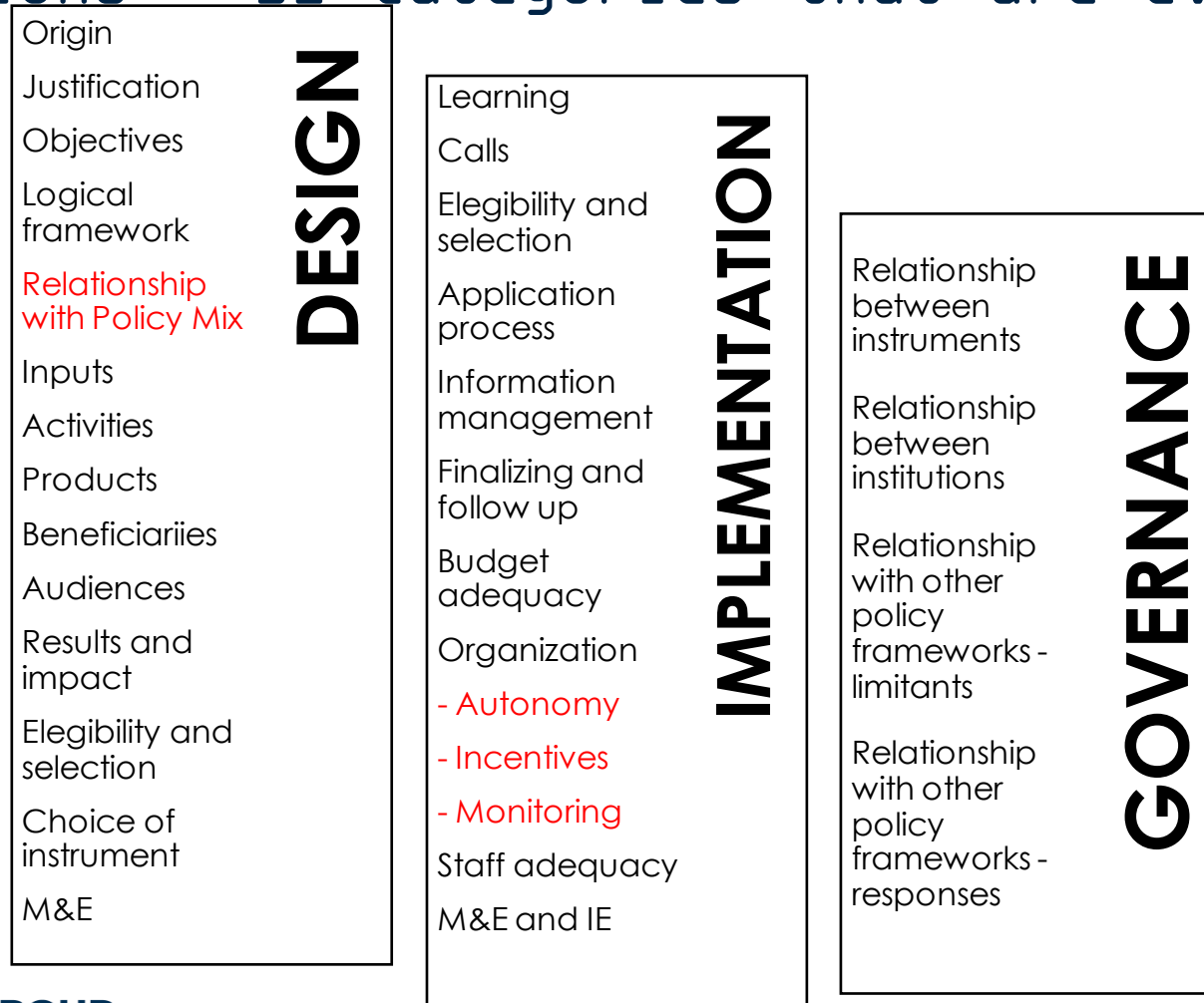
Management Quality

- . Budgeting – provide resources that are sufficient to implement a policy and support the desired level of beneficiaries, without cutting the quality of services.
 - . Organization management – clearly define the management structure, with a small number of layers between decision-making and implementation.
 - . Role definition and autonomy – define clear roles for management and supervision positions, and ensure technical autonomy for design and implementation to limit political interference.
 - . Human resources, training – allocate talent to the most appropriate task and provide adequate internal training and external training opportunities.
 - . Incentives management – introduce performance based rewards, as well as adequate accountability.
 - . Process monitoring – ensure that processes are monitored accordingly, facilitated by central information systems.
 - . Program monitoring and evaluation – ensure that M&E frameworks are in place and used, and that data on inputs, products and outcomes is collected.
-

Functional Analysis

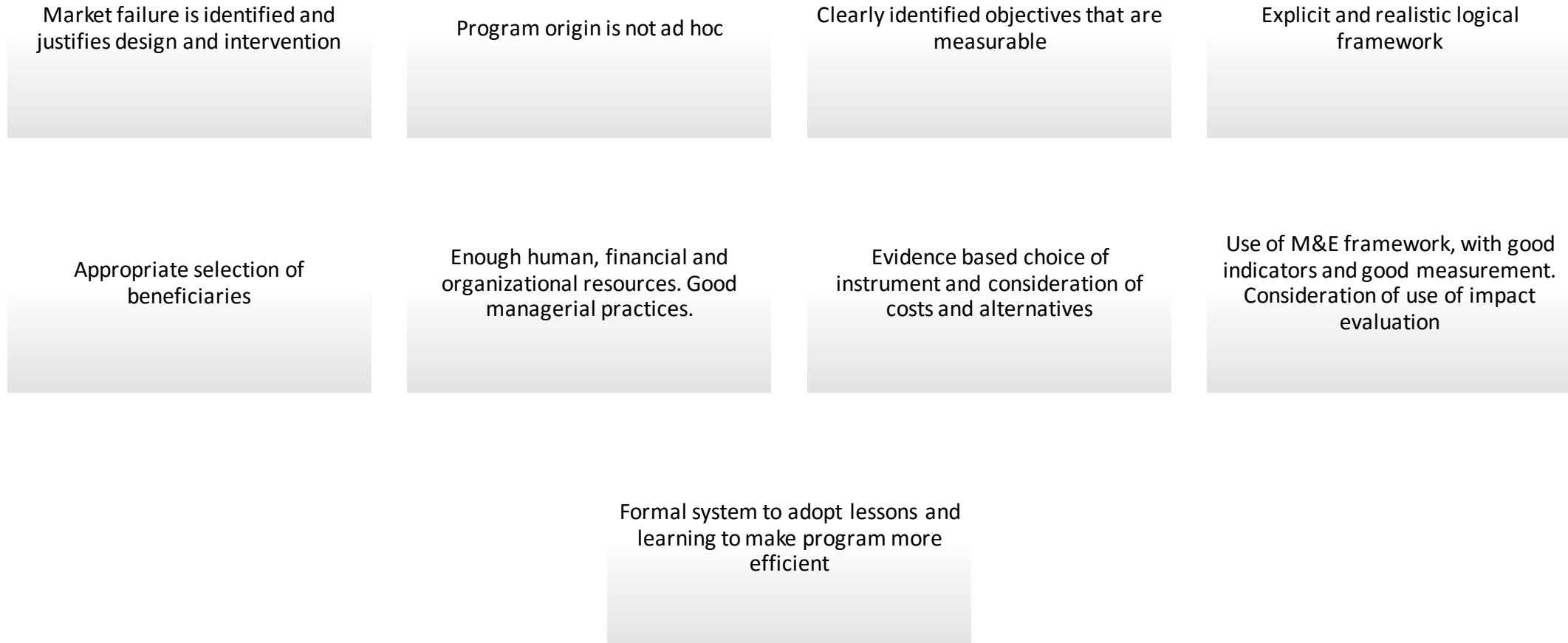
The objective of this part is to evaluate the quality of design, implementation and governance of STI programs

Three dimensions - 31 categories that are evaluated



Functional Analysis

The Good Practice Model



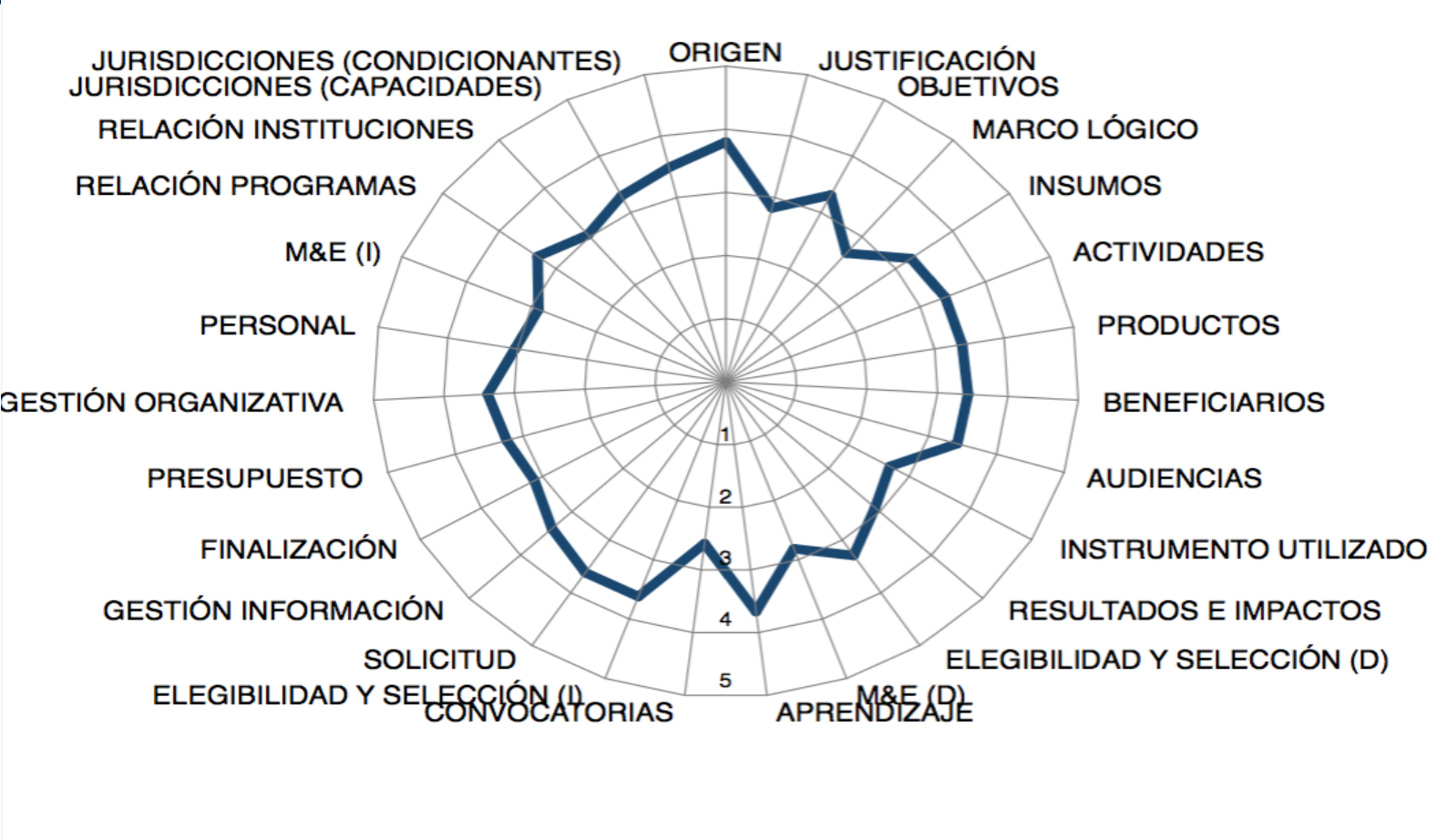
Methodology Functional Analysis

- Use semi-structured interviews with program managers
- Scoring matrix - values 1-5 based on best practices
- 31 areas in public management were identified along three dimensions, - design, implementation and governance. The design dimension covered 14 areas, implementation 13 and governance the remaining 4.



Functional Analysis

Instruments - on average - rank in the middle of the best practice scale



Functional Analysis

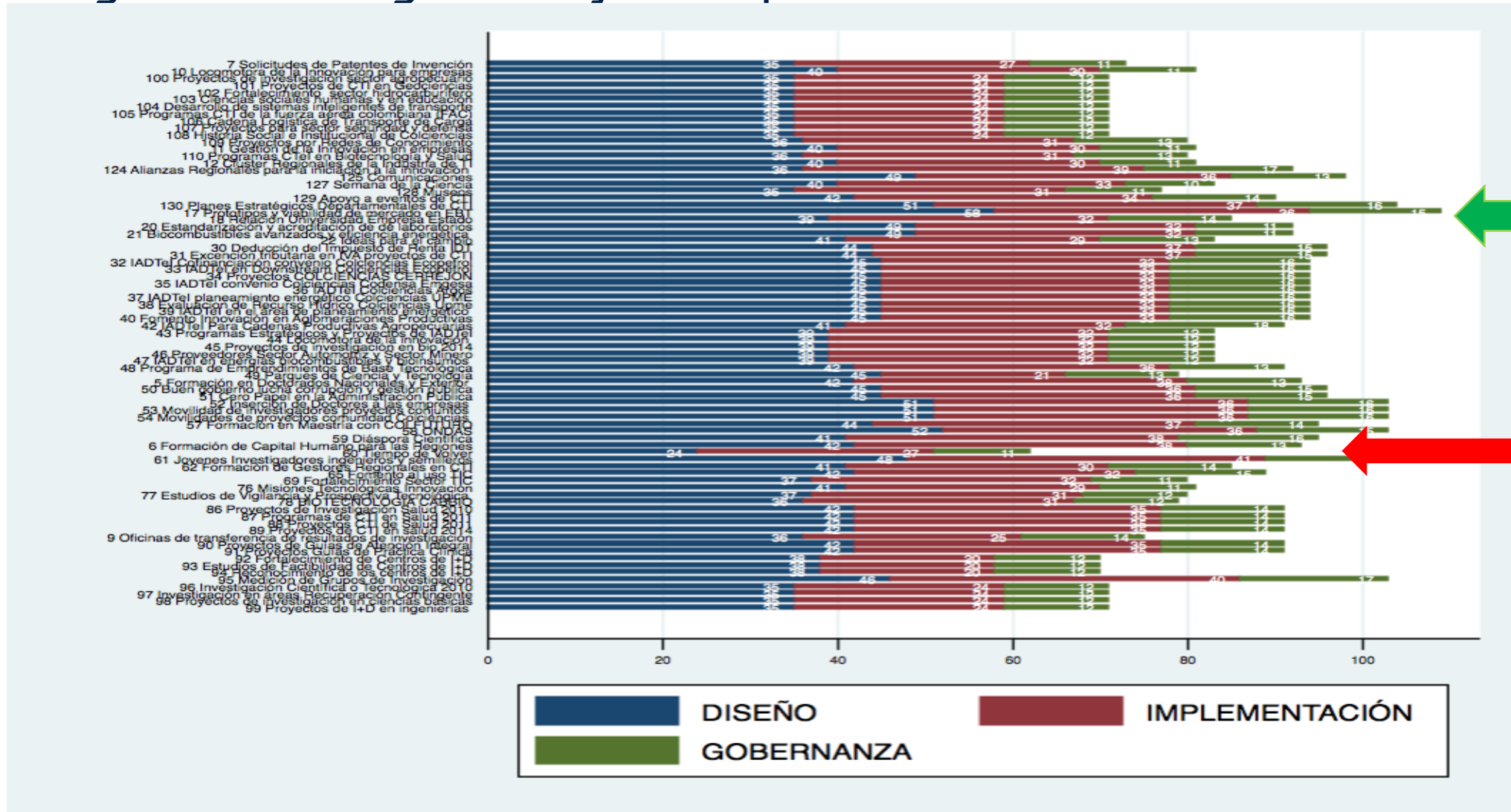
- Analysis allowed clustering of instruments and identification of weaknesses

Cases\Dimensions	Med.	Just.	Coord.	Resul.	Apr.	Pres.	No. Instruments
G9: Coordination & Learning	+		++	+	++	+	14
G6: Measurement & Results	++	+	+	++	+	+	9
G2-10: Poor Learning, Measurement	-	-	+	-	++		25
G3: Poor Budget, Measurement	-			+		+	4
G7.1: Intermediate, Learning					+		13
G7.2: Intermediate, Poor Justification	+	-				+	15
G5: Learn. Just. ↓ Measure. Coord.	-	+	-		+	-	6
G1: Isolated Learning	-	-		-	+		13
G4, 8 y 12: Scattered	--	--	-	-	-	+	26

Weaknesses
of the
system

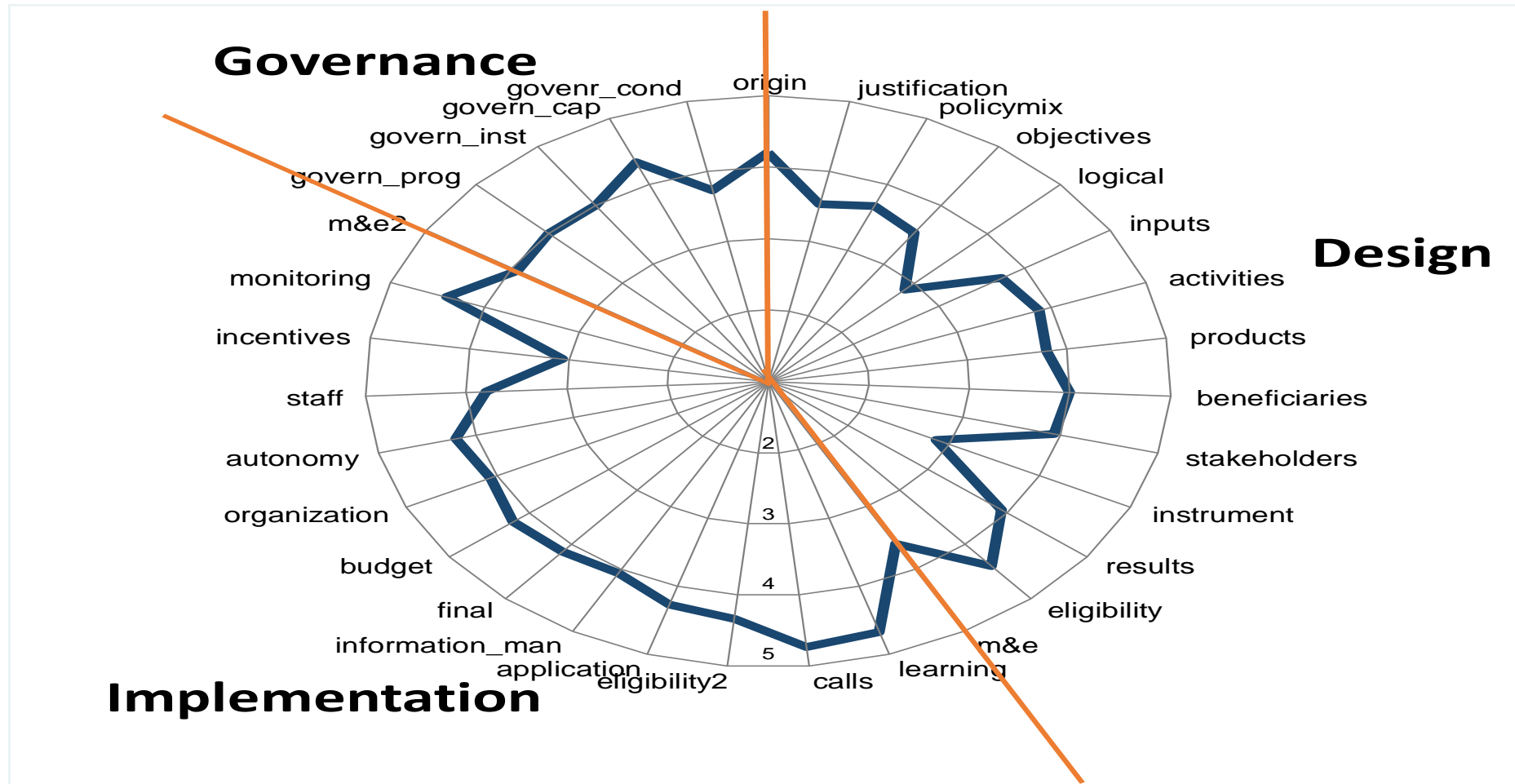
Functional Analysis

- Large heterogeneity in performance



Overall Performance and Gaps

Good overall quality – average around 4 – close to best practices in many dimensions



Efficiency

For a sample of instruments identified according to size and other priority criteria (i.e. potential impact, government's interest in scaling up, etc.):

1. Complete accounting of inputs and products, both tangible and intangible, at the program/beneficiary level.
2. Evaluation of products at the program level based on the logical framework, economic cost-benefit ratio and, wherever possible, benchmarking with similar programs implemented at international level for which data on efficiency are available .
3. Survey of beneficiaries on costs and quality of services



2.4 Some lessons for impact evaluations/effectiveness

- How to evaluate if no logical framework and no M&E?
- What to do with evidence if no learning mechanisms?
- Need to build the narrative linking effectiveness-efficiency-functionality-policy mix- what went wrong and where?
- Need to invest resources in the IE, but also on adopting good practices in design and implementation
- Need to build institutional capabilities for evaluation:
 - What is evaluated?
 - Who does the evaluation?
 - Who brings evidence and good practices?
 - What is the learning mechanism?
 - How do we finish programs?