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Building Public Capabilities for Productive Development Policies:

Costa Rican Case Studies

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Abstract*

This paper explores the development of public sector capabilities for Productive Development Policies in Costa Rica through four case studies of successful experiences, with less successful cases presented as counterfactuals. To some extent the paper tests the Technical, Organizational and Political Capabilities (TOP) conceptual framework of Cornick (2013), suggesting adjustments and extensions of that framework. Strong commonalities are found among the cases, notably high technical and political capabilities. All cases likewise involve well-managed organizations, but identifying organizational capabilities proved difficult. While the TOP Capabilities framework may be useful for understanding institutional performance, it has three major weaknesses: i) organizational capabilities are not clearly defined; ii) it does not provide tools for identifying and measuring capabilities ties independently of institutional performance; and iii) it needs to be integrated into a more general framework that takes into account the interactions among the political economy, the Policy Making Process, the institutional setup and TOP capabilities.

JEL classifications: D02, F63, L52

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Disclaimer

The authors of this paper were deeply involved in Costa Rican politics and policymaking for many years, having occupied official positions and worked as consultants for different governments. This has afforded them first-hand knowledge of the policymaking process and of many of its key players. While there are, we think, obvious advantages to such close acquaintance with the processes under analysis, inevitably there is also the risk of biases induced by that very same closeness. In consequence, we thought it appropriate to inform the reader of our perspective. We have tried to be as objective as possible, and to forget our “policymakers’ hat” while wearing our “scholars’ hat.” It is up to the reader to decide whether we have succeeded or not, or to what degree.

List of abbreviations

AZOFRAS	Association of Free Zone (Zonas Francas) Operators
BDP	Business Development Program
BEI	Business Excellence Institute
BNCR	Banco Nacional de Costa Rica
BP	Banco Popular (Costa Rica)
CADEXCO	Costa Rican Chamber of Exporters
CAFTA	Central American Free Trade Agreement
CAMTIC	Chamber of Information and Communications Technologies
CAPM	Certified Associate in Project Management
CRM	Customer Relationship Management
CCI	Costa Rican Chamber of Industry
CINDE	Costa Rican Investment Promotion Agency
CPC	(Private) Council for Competitiveness Promotion
CONICIT	National Council of Science and Technology
ECLAC	Economic Commission on Latin America and the Caribbean
ERP	Enterprise Resource Planning
FDI	Foreign Direct Investment
FUNCENAT	Costa Rica's High Technology Foundation
IDB	Inter-American Development Bank
INA	National Training Institute
ISI	Import Substitution Industrialization
KPIs	Key Performance Indicators
MEIC	Ministry of Economics, Industry and Commerce
MICITT	Ministry of Science, Technology and Telecommunications
MNCs	Multinational Corporations
OECD/OCDE	Organization for Economic Co-operation and Development
PCCI	Presidential Council on Competitiveness and Innovation
PROCOMER	Costa Rican Foreign Trade Promotion Agency
PROPYME	SME development fund at MICIT
SDP	SMEs Development Program

SME	Small and Medium Enterprises
TCS	Training and Consulting Services
TEC	Costa Rican Institute of Technology
TOP	Technical, Organization and Political
UCCAEP	Costa Rican Union of Private Sector Chambers and Associations
WB	World Bank
WEF	World Economic Forum

1 Introduction

1.1 Background: Production and Export Diversification

Costa Rica's success at diversifying its production and export structure, attracting high-quality foreign direct investment (FDI), increasing the knowledge content of its exports and developing an increasingly high value-added export services sector has been extensively studied and well documented. Recent examples include CEPAL (2014), OECD (2012) and World Bank (2013).

Some of the limitations of the production and export diversification model, particularly the failure to develop strong and numerous linkages between local companies and MNC operating in the Zonas Francas have also been studied. Paus (2005) explored this issue early on and revisited it recently (2014) from the perspective of Costa Rica's global industrialization strategy, while Monge-González and Rodríguez (2013) and Vargas et al. (2010) specifically evaluated Costa Rica's programs aimed at developing linkages between local companies and MNCs operating in Zonas Francas. Padilla Pérez and Alvarado Vargas (2014) also address the issue from the perspective of the "structural heterogeneity" of Costa Rica's economic structure, while Rivera (2010) analyzed the export performance of small and medium businesses.

Some of the institutions and programs that have driven Costa Rica's success have also been studied in depth. Clark (2001) provided a detailed account of the emergence of the Coalición Costarricense de Iniciativas de Desarrollo (Cinde) and its role in the transformation of the Costa Rican economy, and remains, to date, the standard reference on this topic. In a more recent paper, Monge-González, Vargas and Mata (2008) provide a detailed (and obviously more up to date) account of Cinde's history and contributions. Cornick, Jiménez and Román (2014) include a study on FDI attraction in Costa Rica in which the role played by Cinde is discussed.

Whatever its limitations, it is undisputable that Costa Rica's economic strategy over the last 30 years exhibits very significant achievements, and the country now enjoys a solid "middle income" status. Alas, as other countries that have achieved as much, it now faces the danger of falling into the "middle income trap," albeit a somewhat atypical one: not the trap besetting resource-rich economies that grow quickly over a number of years and then fail to diversify outside the resource-based economy, but rather a public policy and public capabilities trap.¹

¹ See CEPAL (2014) and Trejos (2013) for a discussion of some of the peculiarities of Costa Rica's recent development experience.

The overall performance of Costa Rica's public sector is poor. An increasingly complex web of institutions with varying degrees of autonomy, subject to cumbersome but inefficient control mechanisms, frequently leads to paralysis, as dramatically exemplified by the infrastructure sector, where roads designed decades ago are only partially built as of this writing, in spite of an abundance of funds for this purpose, particularly from the IDB. This issue was discussed by Cornick and Trejos (2009) and recently revisited by Academia de Centroamérica (2014).

There is increased recognition in policy studies, such as OECD (2012) and Gereffi, Bamber, Frederick and Fernández-Stark (2013) that in order to achieve continued success in knowledge-based economic growth, FDI attraction, and productive structure diversification (and integration) Costa Rica will need to deploy increasingly complex, hard-to-implement public policies, not because a break with past policies is needed, but on the contrary, because those policies have been, to an important degree, successful and now need to be adjusted to the conditions of a changed country, and complemented with policy initiatives in some areas that have been somewhat neglected in the past or in which success has been elusive.

In facing up to these new challenges, four crucial difficulties are the following. First, Costa Rica has been very successful in deploying “narrow” policies that require, for the most part, the intervention of one or at most very few public institutions and which, in many cases, require narrowly targeted interventions by those institutions. **It has not been so good at wide policies**, which are now needed.

Second, Costa Rica has been very good in at taking advantage of pre-existing stocks of public and private capabilities and productive capacities² and deploying them in the service of its economic transformation strategy. Alas, **it has not been so good at developing new capabilities and capacities**, at least not at the pace and on the scale currently needed.

Third, Costa Rica has been quite successful at developing a few highly effective public agencies, but all of them are **small**. It has not been so good at developing highly effective **large** public institutions, and to a certain extent, it may now need precisely this.

Fourth, Costa Rica's record of public-private cooperation is spotty, with some very successful and some very unsuccessful cases (Cornick, Jiménez and Román, 2014). International experience suggests that success in wider and more ambitious productive development policies

² We are following Nübler's (2014) suggestion to use “capacities” to refer to “tangible production factors and infrastructure” and “capabilities” to refer to different forms of individual or collective knowledge

will require much deeper and successful public private cooperation (Devlin and Moguillansky, 2010).

1.2 Can We Learn from Success Stories?

This paper does not directly tackle the issue of how to overcome these four difficulties, but it hopes to shed some light on the issue indirectly. What the paper does is to study three success stories within Costa Rica's productive development strategy and try to elucidate the key capabilities that enabled success and how they were acquired. The Technical, Organizational and Political (TOP) Capabilities conceptual framework is used to guide the study.

To a certain extent, therefore, the paper focuses on "how Costa Rica become good at those things at which it is good" in terms of productive development policies. However, the cases will also illustrate efforts currently underway at becoming good at new things, or to put it more precisely, efforts at expanding and upgrading public sector capabilities in order to meet the new challenges of productive development policy.

1.3 Conceptual and Methodological Issues

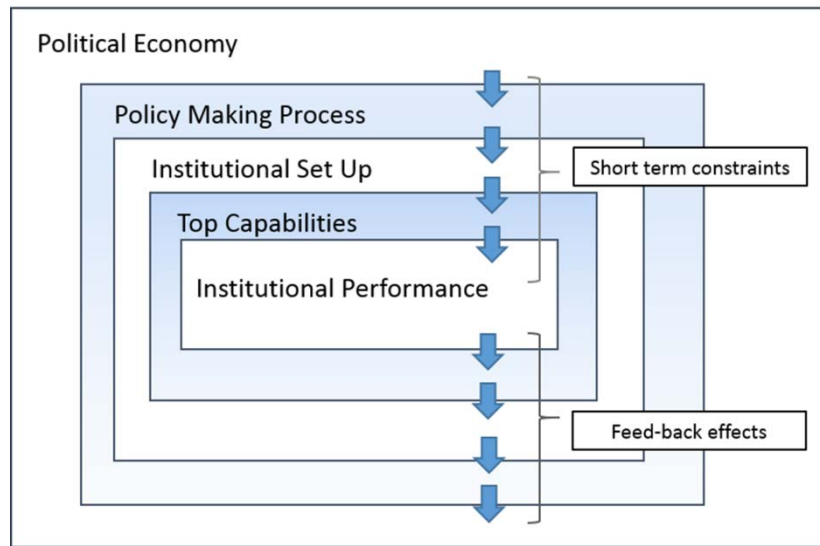
Conceptually, the paper uses and to a certain extent, "puts to the test" the conceptual framework regarding public capabilities developed in Cornick (2013), with some adaptations and incorporating some of the ideas developed in Nübler (2014).

In short, Cornick argues that the performance of Productive Development Agencies can be explained, to a considerable degree, by their Technical, Organizational and Political Capabilities (TOP) capabilities. Moreover, borrowing from ideas developed by Sabel and Reddy (ND), Pritchett, Samji and Hammer (2012) and Andrews (2013) among others, he argues that capabilities are increased and new capabilities are acquired through cycles of Experimentation, Feedback and Adaptation (EFA cycles).

It should be noted, however, that the explanatory power that TOP capabilities may have regarding the performance of Productive Development Agencies and, more generally, the public sector, is bounded by the political economy, the institutional context and the features of the Policy Making Process within which they operate.³ Figure 1 below may help clarify these relationships.

³ Some of these issues have been studied in detail in previous IDB publications. See, for example IDB (2006) and IDB (2008).

Figure 1.



The political economy, that is to say, the balance of political and economic power at any given moment, defines the most general framework for politics and policymaking. A given political economy balance, however, may express itself in Policy Making Processes (PMP) with different features as discussed, for example, by Spiller, Stein and Tommasi (2008). Even within a given PMP, different institutional designs are possible, and they need not be uniform across all parts of the public sector, all levels of government, or all regions within a country. TOP Capabilities help explain (or so Cornick argues) the performance of public agencies within the limits set by the political economy, the PMP and the specific institutional design in each case. It is reasonable to assume that in the long run there can be feedback effects: a successful Productive Development Agency and successful Productive Development Policies may be the starting point of processes that eventually result in changes in institutional design, Policy Making Process and even political economy, as the recent experience of China (see, for example, Din et al., 2013 and Pascha, Storz and Taube, 2011) so richly illustrates.

Methodologically, the paper uses a case study approach, as opposed to using statistical techniques of some sort or another. This choice is justified on three grounds: the paucity of available data, which prevents us from applying statistical techniques; the unfeasibility of conducting formal experiments at this time; and our rudimentary understanding of the problems at hand at this stage. It is hoped that these case studies and similar ones carried out simultaneously in other Latin American countries will allow us to sharpen this understanding,

improve the conceptual framework and, perhaps, devise formal hypotheses and tests in the future.

The question, then, is how to approach the case studies so that they serve these purposes. The answer—in accordance with the general guidelines for all project participants—has been to study specific episodes that highlight processes of “capability acquisition” or, to some degree, failure to acquire certain key capabilities. The analysis of these episodes is expected to improve understanding not only of the cases themselves but also on two related, conceptual questions: whether the key capabilities match the TOP capabilities of the conceptual framework, in the first place, and the conditions under which capabilities are successfully developed (or not).

While many sources of information have been tapped in the course of our research, personal interviews with key policy-makers have proved to be particularly illuminating, as the issues on which this explore are often neglected in institutional reports and official data. Much of the relevant knowledge resides in the people at the head of the institutions, and we hope to have captured some of it in our interviews.

2 An Overview of the Cases

First, a terminology clarification:

- By “episodes” we refer to processes of institutional change; we have chosen episodes characterized by each institution or program assuming a more ambitious set of goals and objectives, and achieving at least partial success in the pursuit of them. We take this as *prima facie* evidence of capability upgrading within each institution, and endeavor to explore whether the available evidence is consistent with this assumption.
- “Institutions” is a term that, despite the best efforts of institutionalists, is used in different and sometimes confusing senses in the literature: in some cases it is intended refer to formal and informal rules that regulate interactions between agents, while in others—perhaps particularly in Latin America—it is used as synonymous with “public sector organizations” such as ministries, decentralized agencies, local governments and so on and so forth. Lacking a

good alternative, we will use the term in one sense or the other, as needed, trying to be as clear as possible in regard to the meaning intended.

- The term “institutional design” will be used to refer to the “organizational chart” of the public sector and the assignment of decision-making and implementation responsibilities within it, that is to say, to the distribution of power and responsibilities amongst different branches and levels of government, the organization within each one in ministries, departments, agencies and other offices, the lines of authority between them, and the allocation of roles regarding who decides what, and who is in charge of executing what.
- Finally, we will use the term “institutionalization” to refer to the transition from an ad-hoc and temporary institutional design, to a stable, long term design, perhaps anchored by a (difficult to change) law. So, for example, when a small scale, short term pilot program funded by international cooperation and executed by an ad hoc and temporary team is transformed into a permanent program, assigned to a Ministry, Agency or other suitable institution, and becomes funded through the national budget, we will refer to the process as the “institutionalization” of the program.

The institutions we will study are the Presidential Council on Competitiveness and Innovation (PCCI), the Linkages Program at Procomer (LPC), and the Medical Devices section of Cinde. Following is a brief description of each institution and of the episode to be studied.

2.1 The Presidential Council on Competitiveness and Innovation (PCCI)

Several recent studies of productive development policies in Costa Rica have highlighted that narrow policies, based to a considerable extent on pre-existing stocks of capacities and capabilities, while quite successful so far, may not be enough to overcome the challenges Costa Rica must face if it wishes to transition from a reasonably successful middle income country to a successful high-income country. Wide policies, which by definition demand the concerted action of many different public institutions, and which are probably more complex, are needed. These issues are explored in detail in CEPAL (2014), Cornick, Jiménez and Román (2014), Monge-González, Rivera and Rosales-Tijerino (2010) and OECD (2012), among others.

The creation of the PCCI is an attempt to solve the issue public-public coordination within the central government and to a certain degree between the central government and other public institutions with various degrees of autonomy. It is an “upgrading event” that attempts to overcome a well-known problem, using an innovative solution (for Costa Rica) that was devised taking into account the lessons derived from previous attempts at solving the same issue, such as the Sub-Cabinets created during the Figueres Administration (1994-1998), the Programa Impulso during the Rodríguez Administration (1998-2002), the Competitiveness Council during the Pacheco Administration, and the appointment of a cabinet-level Competitiveness Minister (but no Competitiveness Ministry) during the second Arias Administration (2002-2006). Moreover, the attempt was, within limits to be discussed later, successful, as indicated by changes in Costa Rica’s rankings in WEF’s competitiveness indicators and WB’s Doing Business indicators. The case of the Competitiveness Minister during the Arias Administration will be briefly discussed as a counterfactual.

2.2 Linkages Program at Procomer

Procomer, created in 1996, is a public institution in charge of export promotion and foreign trade facilitation (Procomer, 2014). Its predecessor was the Center for Export and Investment Promotion (CENPRO), created in 1968 within the Ministry of Economics, which at the time was mainly concerned with import-substitution industrialization.

As trade facilitator, Procomer is in charge of managing Costa Rica’s special export regimes (“Zonas Francas” and “Perfeccionamiento Activo”). It additionally provides a “one-stop” digital portal for exporters that links 16 different institutions that participate in foreign trade permits and authorizations, provides commercial intelligence, issues “certificates of origin” as required by the country’s various free trade agreements, and cooperates with Comex and other institutions in logistics and customs related issues. As export promoter, Procomer supports both direct exports by domestic producers and indirect exports, through linkages to (mostly foreign) exporting companies.

The status of linkages promotion and program, in the context of Costa Rica’s economic transformation policies, starting in the early 1980s, has gradually changed. In the very early stages of Costa Rica’s economic reform strategy, from 1982 to 1999, linkages between local companies and multinational corporations were not even in the policy agenda. Economic policy was

focused on stability, FDI attraction and employment creation. Then, in 1999, a small, five-year Linkages Program was set up with IDB funding. In 2005, when funding expired, the program was transferred to Comex/Procomer and set up as a permanent program, funded by fees on Zonas Francas and Customs Declarations. During this stage, all linkages were treated as equal (the analogy with early stages of export promotion is instructive). A new stage began in 2010 when Procomer for the first time defined a formal institutional strategy and decided to focus the Linkages program exclusively on tradables, with a special focus on high value added linkages. At the same time, Procomer decided to go beyond its early “matchmaking” functions and started to work on “supply development” in conjunction with other public institutions.

Simultaneously, an Inter-Ministerial Linkages Commission was established in order to deal with “wide” policy issues. This upgrading episode (from “generic” to “focused” linkages promotion, and from “matchmaking” to “matchmaking plus supply development”) is the focus of our study.

The case discussed immediately below neatly illustrates the process by which good institutional performance leads to increased capabilities, then to changes in the institutional setup and even further, to modification in the (policy-specific) PMP

2.3 Anchoring the Medical Devices Cluster: The Role of Sterilization Services

The medical devices industry has a long history in Costa Rica, dating back to 1987 when Baxter set up a production facility in the country. A few other companies set up operations in the following years, but it was starting in 2004 that the sector really took off: the number of new firms investing in Costa Rica each year started to increase, while the scale and complexity of operations of firms already in the country grew. Moreover, suppliers of medical device manufacturers operating in Costa Rica followed their clients and started to set up their own operations in the country.

A landmark was achieved when, as a result of joint efforts by Cinde and firms in the sector, first one and then a second sterilization services firm opened shop in Costa Rica, thus allowing firms in the sector the opportunity to ship their products directly to final customers, instead of shipping them to a sterilization facility abroad and only after that to final customers, and also offering them the opportunity of integrating downstream and setting up distribution centers and marketing operations frequently associated with them. Perhaps even more importantly, once ster-

ilization services became established in Costa Rica, the country became attractive to new firms not previously operating in the country and to new activities not previously undertaken there.

Cinde, thus, has gone beyond efforts to attract exporters. Not only it is now working to attract suppliers for those exporters, but it is targeting strategic suppliers that “anchor” the sector by strengthening its competitive advantages (in this case, by reducing inventory costs and shortening delivery times to final clients) and offer it new possibilities for further development (in this case, downstream vertical integration). This is the episode we study in this paper.

3 The Presidential Council on Competitiveness and Innovation

3.1 Narrative⁴

Serious difficulties in the deployment of wide policies and even in the execution of simple projects that nevertheless require the collaboration of multiple institutions, as in the case of enlarging an existing urban road (a project that may be trivial from an engineering point of view, but which requires, nevertheless, the collaboration of the utilities in charge of public lighting, potable water, sewage, and telecom towers, whose assets need to be moved to a new location before road enlargement can proceed) have long plagued the Costa Rican public sector. Many solutions have been attempted. None has been long-lasting, even if some were effective in the short term.

In the case of Intel’s first manufacturing plant in Costa Rica, inter-institutional coordination was achieved via a task force chaired by President Figueres (1994-1998) himself (Spar, 1998). The task force was dissolved once its goal was accomplished. Afterwards, public-public coordination was attempted by the division of the cabinet into two subcabinets, each one headed by a Vice President: a “social cabinet” and an “economic cabinet,” which focused more on macro issues than on the “micro” inter-institutional issues typically involved in wide PDPs. This mechanism, whatever its merits or faults, was not continued after the Figueres administration.

Instead, President Rodríguez (1998-2002) created the Programa Impulso to deal with multi and inter-institutional issues relating to competitiveness and the cost of doing business. This program was coordinated by the president’s son, Andrés Rodríguez, who could speak with full authority on the president’s behalf, and it was relatively successful.⁵ So, like the Intel task-

⁴ Most of the information in this narrative comes from Monge-González (2014) and Consejo Presidencial de Competitividad e Innovación. Other sources are quoted when appropriate.

⁵ One of the authors of this paper, Jorge Cornick, worked as an advisor for Mr. Rodríguez and helped prepare Impulso’s final report.

force, inasmuch as the program was successful, part of the success can be attributed to the fact that, for all intents and purposes, Impulso was headed by the President himself. At the end of the Rodríguez administration, the Program was transferred to MEIC, where the Minister delegated it to a lower-ranking official, and it rapidly faded away.

President Pacheco (2002-2006) also tried to tackle the issue of wide policy coordination, in this case by means of a Competitiveness Council chaired by the Minister of Economics, Industry and Commerce (under which Programa Impulso now operated). Perhaps unsurprisingly, fellow ministers⁶ and heads of Costa Rica's numerous decentralized institutions, some of whom had considerable political influence and weight by themselves, did not act as if they needed to report to or follow instructions from a peer. Gradually, ministers started to send delegates instead of attending meetings personally, until the Council simply stopped having meetings altogether.

President Arias (2006-2010) tried a similar approach, but he assigned the task to a Competitiveness Minister. The title may suggest a powerful position, but the Competitiveness Minister was, quite literally, a Minister without a Ministry ("Ministro sin Cartera"). His situation, therefore, was even worse than that of the Minister of Economics under the Pacheco administration: just like her, he was a peer whose work depended entirely on the collaboration of peers over whom he had no authority; unlike her, he did not even have an institution and its attached bureaucracy working for him.

Despite the best efforts of the Minister, the program went nowhere.

Enter the Chinchilla Administration (2010-2014). But first a short prelude.

Ricardo Monge, who has written extensively on PDP issues in Costa Rica and on industrial policy in the ISI era, not only noted the importance of these wide coordination issues in one of his latest papers on PDPs in Costa Rica (Monge-González, Rivera and Rosales-Tijerino, 2010) but took a step further and set out to devise a solution. He took as his starting point his own research on this subject, and decided to present its main results to **all** candidates for Costa Rica's 2010 presidential elections, striving to present his research results as an objective, technical input, which could be useful to any potential winner of the elections, regardless of ideological preferences.

⁶ One of the authors of this paper, Alberto Trejos, was Costa Rica's Foreign Trade Minister at the time.

As it turns out, in the case of Partido Liberación Nacional, who would go on to win the elections, he found an ally in Anabel González, who later became Costa Rica's Foreign Trade Minister and one of President Chinchilla's closest and more influential advisers.

It is worth taking a brief look at Monge's and González's bios, as they exhibit certain features that, as will become clear later on, are common to most of our cases (Procomer is a partial exception, but unlike Cinde and the Presidential Council on Competitiveness and Innovation, Procomer is not a stand-alone institution, but rather part of Comex, which does exhibit the same common features we are about to explore).

Monge's profile is technocratic. He has been an academic and consultant all of his life, with a Master's degree from Ohio University. He has a long list of academic and research publications, many of them related to "industrial policy" or "productive development policies." While he has not held public office, either elected or appointed, he has worked closely with policymakers on many occasions. Moreover, much of his academic and research work has taken place in collaboration or for international organizations, such as the Inter-American Development Bank and the World Bank. To summarize the relevant features for our purposes: post-graduate studies outside of Costa Rica, active participation in an international knowledge and research network that is at the forefront on the issues under study, and a long tradition of collaboration with policymakers.

González's profile is both technocratic and political. She holds a Master's degree in Law from Georgetown University. In contrast to Monge, she has extensive experience in public office, having served as Deputy Trade Minister, Chief CAFTA negotiator for Costa Rica and Executive Director of Cinde, as well as holding several high ranking positions in international organizations, including the WTO and the IDB. Note, however, that while she has been appointed to several public offices, she has not run for elected office. In this sense, while she is no doubt a skillful and quite successful politician, her profile is different from that of the politician who works within a party structure and runs for office. To be more specific, she belongs to a group of technocrats with close ties with more traditional politicians and has served in public office several times, but she is not closely tied with and does not have strong influence within a political party.

To summarize the relevant features for our purposes: post-graduate studies outside Costa Rica, active participation in an international knowledge and policy-practice network that is at the

forefront of the issues it addresses, and extensive experience as a policymaker. She has not, however, held elected office.

González arranged a meeting between Monge and future president Chinchilla. A few of her closest advisors attended the meeting, where the proposal was made to create the Presidential Council on Competitiveness and Innovation. Monge's case was two-fold. First, Costa Rica could not hope to solve a host of competitiveness issues through the individual actions of specialized agencies. Removing the binding constraints on productivity increases demanded the concerted action of many public agencies, that is to say, well-coordinated wide public policies. Second, Costa Rica's experience as well as international experience with similar councils⁷ clearly indicated that the presence of the highest political authority, be it the President or the Prime Minister, was of the essence for the council's success.

The conceptual proposal was well received by Chinchilla and her advisors. "What do we need to implement it?" was her question. Monge set out to work with the collaboration of Luis Loría, and they came up with a proposal for a council that would include on a regular basis all key economic policy ministers and other ministers or the heads of other public institutions as needed. The council, chaired by President Chinchilla, would meet once a month, and it would have a small technical secretariat headed by Monge.

As is not entirely atypical in the Costa Rican policy experience, what should have been almost impossible to achieve was easily achieved, whereas what in almost any other country would have been a trivial task proved to be almost impossible: according to Monge, President Chinchilla attended all but four council meetings during her four-year term. She asked her two vice presidents to join her, and to take charge of following up on the Council's decisions, as it was understood that her role was to provide strategic direction and make key decision, but not to get involved in the operational details of implementing those decisions. The role of Minister González was critical in addressing those details. A technocratic initiative, by itself, would have hardly been enough to have such an impact on the President's agenda and the allocation of her time. What made a difference in this case was that González—unlike Monge—not only had tremendous political weight within President Chinchilla's cabinet, but also was running one of the government's most successful programs, namely, foreign trade, FDI attraction and export promo-

⁷ The interested reader may consult (Devlin and Moguillansky, 2010) for a review of similar councils in developed and developing countries

tion, as well as leading Costa Rica's effort to join the OECD. If González had not been convinced of the strategic importance of the Council, it is likely that other issues would have captured the President's attention shortly after the Council was instituted.

On the other hand, the Council never had a properly funded and properly staffed technical secretariat. This was one of two key weaknesses.

Monge worked as Technical Secretary and developed a tracking system for the Council's decisions and the advances in their implementation. But for most of the four years of his term he worked alone, with no supporting staff whatsoever, except for a half-time assistant during the last few months of his tenure. He did not even have a regular salary, but instead alternated between periods of ad honorem work and periods when he received an honorarium as an independent consultant.

The Council was created by Presidential Decree. This method has the advantage of expediency: all that is needed is the signature of the President and one of his cabinet members and by presidential fiat the Council exists. The method, however, has two important disadvantages: in contrast with laws approved by Congress, presidential decrees can be undone as easily as they are made. While the President could create the Council on her own authority, she could not allocate budget funds to it without congressional approval.

Moreover, the Council was not designed as a public-private cooperation mechanism. It was made up exclusively of public officials, namely, the President, who chaired its sessions, her two vice presidents, and the ministers of the Treasury, the Presidency, Planning and Economic Policy, Foreign Trade, Agriculture, Public Works, Education, Environment, Science and Technology, Tourism, Health and the Minister of Decentralization, plus the CEOs of the National Water and Sewage Institute, National Electricity Institute, and the National Training Institute.

The private sector was not entirely happy with this situation, and a Private Competitiveness Council was created in November 2011,⁸ in part as a reaction to the exclusion of the private sector from the PCCI, in part as a desire on the part of some business leaders to promote a private sector agenda that was focused on general competitiveness issues as opposed to sector-specific issues championed by sector-specific organizations such as the Chamber of Commerce, the Chamber of Industry and the Chamber of Tourism. Eventually, the PCCI opened up to the

⁸ See Consejo de Promoción de la Competitividad (n.d.)

private sector, and one representative from the CPC and one from the UCCAEP were incorporated as regular members.

The Council was to focus on five priority areas:

- Human Capital and Innovation
- Foreign Trade and FDI
- Access to Finance and Stock Markets
- Infrastructure
- Regulatory reform and paperwork reduction

Infrastructure was removed from the Council's responsibilities soon after the start of the new administration, and the PCCI focused on the other four areas for the rest of the Presidential term.

Gradually, the Council found a *modus operandi*. The President defined priorities, and the Technical Secretary helped translate those priorities into goals and objectives. The Ministers and Executive Presidents of independent agencies were responsible for developing plans or identifying the actions required to achieve those objectives. The Technical Secretary kept track of progress on all the issues tackled by the Council.

The Council had no formal authority by itself, and while the President of course had authority over cabinet members, under Costa Rican law her formal authority over the heads of independent agencies is very limited. Informal leadership is of course another matter, and the President developed what might be called a "carrot and stick" method, which relied entirely on informal authority.

An example helps illustrate the point. Opening a new business is a cumbersome and lengthy procedure in Costa Rica, and this hurts Costa Rica's ranking in the World Bank's Doing Business survey, not to mention the country's economic performance. This is typical of the sort of problem the Council was designed to address, as there is no single authority that can make the procedures simpler and faster, because many different issues under the purview of many different agencies are involved, including environmental and land use regulations, construction codes, health and safety standards, industry specific construction and design regulations, operating permits, firm and workers registration for tax and social security purposes, and many other issues. Some of these issues are under the responsibility of local governments (municipalities) which not

only are not under the direct authority of the President, but in fact are endowed by the constitution with autonomy from the central government.

At some point, the Council arrived at the conclusion that without changes in municipal procedures Costa Rica could neither reduce the time required to register a new business nor improve its ranking in Doing Business. Previous efforts to enlist municipal collaboration had gone nowhere. So, what did the Council do? The mayor of San Jose, the country's largest municipality, was invited to attend a Council meeting. The problem was presented to him, the importance for the country was explained, and the need for his collaboration underlined.

Had all these points been made to the mayor in a private meeting, even if the meeting were with President, the mayor could have easily responded that his priorities lay elsewhere, appealing to municipal autonomy and then politely excusing himself from spending any more time on the issue.

Alas, the context was very different. He was attending a meeting with a large number of Cabinet members, heads of independent agencies and representatives from key private sector institutions. These were audiences whose approval and support were important for the mayor, not least because he was considering a run for the presidency and a good portion of his party's leadership was attending the meeting.⁹

The mayor's collaboration was secured on the spot. And lest that collaboration be reduced to words rather than deeds, he was invited to make progress reports to the Council several times after the initial meeting.

We do not wish to imply with this account that the mayor was unwilling to collaborate, and he might well have tackled the same issues without any need of external prodding. Instead, our point is that the PCCI created a context in which it became very difficult for the leaders of public agencies NOT to collaborate with the President's program, particularly because the initial invitation was certain to be followed by others in which progress reports were expected. As a matter of fact, this method proved quite effective even with Ministers who, while formally under the President's authority, have in fact a large portfolio that includes many issues that may be a priority from the Minister's point of view but not from the President's.

The Council, in short, exhibited three key features:

⁹ Under Costa Rican law, the President and his Cabinet are enjoined from any participation in political party activities; in reality, they are part of the core leadership of their party.

- The Technical Secretariat, while understaffed, had the technical capability required to identify actionable items that could result in tangible progress on the issues tackled by the Council.
- The President's commitment was unwavering: Council sessions were well attended, as all members knew that the President and her two Vice Presidents would attend. Not only would those members look bad if they did not attend, but they would miss the opportunity to raise some issue of interest to them with the President, either as part of the Council's proceeding or informally if they managed to get the President's attention. Had the President started to miss sessions, and to delegate attendance or coordination to a minister or technical staff, attendance would have dropped immediately, or heads of agencies would have started delegating it on some of their subordinates, and the whole "peer + President pressure" system would have collapsed.
- The Technical Secretariat devised an effective "tracking system" that included Council agreements, commitments by the relevant agencies or institutions, and progress reports. If any of the members hoped that the Council would lose track or fail to follow up on commitments made by him or her, they were soon disavowed of such notion. On the contrary, they could be pretty sure that they would be called to present a progress report to the Council and the President on whatever task had been assigned to them.

A few additional features of the Council's working methods are also worth mentioning.

- Particularly in its initial stages, the Council was challenged with proving its effectiveness and gaining legitimacy. After all, it was imposing quite severe demands on the President's schedule, and it had to prove to her that her time was being put to good use. The Council's strategy was to focus on "low-hanging fruit" first and tackle more ambitious tasks later on. For example, it was discovered that Costa Rica's ranking in the World Economic Forum's Global Competitiveness Report was being hurt because only attendance at public universities was being reported. Nobody in the government had seen any reason to trouble himself collecting statistics on private university attend-

- ance. This was corrected at the Council's urging, and Costa Rica gained a few points in the competitiveness ranking by doing nothing more than improving its reporting procedures.
- While the Technical Secretariat was, in fact, unipersonal, and therefore unable to assume responsibility for substantial technical work on issues under the Council's attention, the Technical Secretary's well-developed network of contacts within the international development community proved crucial for the Council's success. Regulatory reform is a good example. For years, Costa Rica had failed to make any progress on this front. Within the Council's work, the Minister of Economy, Industry and Commerce received a renewed mandate to improve matters. The Technical Secretary connected her to a team of World Bank experts on this matter and a technical cooperation program was put in place. The results of this technical cooperation did not prove to be as useful as expected, and a new technical cooperation program, this time involving a group of Inter-American Development Bank personnel was organized. The results of this second technical cooperation become the "roadmap" that enabled Costa Rica to make steady and significant progress in the Doing Business and the World Competitiveness Report index during the four years of the Chinchilla administration. Without the Technical Secretary's help, the process of identifying the right experts and of setting up the technical cooperation operation would have been slower and tentative, and its results may not have been obtained in time to do anything useful with them. Similarly, the Technical Secretary was instrumental in identifying a team of consultants that helped prepare the National Linkages Plan (to be discussed below).
 - When needed, the attention of the Council could be relentless. Regulatory reform and paperwork reduction has proved a particularly tricky issue in Costa Rica. There are a large number of agencies that can issue regulations, and some of them seem actually eager to issue new ones whenever possible. Simplification is the cause of one (the Executive) against many (all institutions with the power to issue regulations). In the blink of an eye, progress made slowly and painfully can be erased. So, what did the Council do? Regulatory

reform became a permanent item on the agenda. At each and every meeting, 15 minutes would be devoted to regulatory reform and paperwork issues. The President let it be known that she meant business on this, and the combination of a highly driven Minister of Economy, the detailed tracking system developed by the technical secretary, and the President's commitment made progress possible in an area where Costa Rica had seemed hopeless for many years.

All in all, the PCCI proved to be relatively successful. It set for itself the goals of improving Costa Rica's ranking in the Global Competitiveness Index, which indeed went up from position 61 in the 2011/12 Global Competitiveness Report to 54 in the 2013/14 issue. It also set the goal of improving the country's position in the Doing Business ranking, and in this case the country went from the 125th to the 102nd position. Progress in these two indexes is remarkable, if only because Costa Rica had failed to make progress in either of them for many years. Success must be qualified, however, because progress was achieved by a series of well selected but narrow interventions, but the PCCI did not become the site of a broad public-private dialogue, nor did it produce a comprehensive competitiveness strategy for Costa Rica.

By the end of Chinchilla's administration another technical cooperation was secured, this time with the IDB. The purpose was to evaluate the work of the Council and to propose ways of strengthening it and making it more effective. The results obtained during the Council's first few years of existence seemed encouraging, and therefore it seemed worthwhile to ensure its continuity.

Alas, and not unlike other Latin American experiences—such as the initial attempts at creating a permanent competitiveness council in Colombia—the new authorities were not interested. It is not that they were hostile to the concept or that the Council was officially abolished. The new administration simply did not convene it, the Technical Secretary's appointment was not renewed, and the PCCI simply faded out of existence.¹⁰

¹⁰ After this report was finished, however, a new Presidential Competitiveness Council was created. Its structure is different, with fewer attendees, and it is explicitly conceived as a mechanism to foster public-private dialogue and cooperation. Perhaps, like Colombia, Costa Rica is on its way to creating, by trial and error, a more stable mechanism for public-private cooperation and for the coordination of wide productive development policies.

**Box 1. A Counterfactual: The Competitiveness Minister
under the Arias Administration¹¹**

During the Arias administration, immediately preceding the Chinchilla administration, a different approach to competitiveness policy was tried: Jorge Woodbridge, a former industrialist and former Chair of the Costa Rican Chamber of Industry was appointed as Minister of Competitiveness and provided with a secretary and an assistant. The creation of an institution, or at least a technical secretariat, was not foreseen. Instead, the Minister had three tasks: to identify strategic sectors for Costa Rica's future development, to identify key constraints on Costa Rica's competitiveness (and prepare bills of law to address them), and to act as a "champion" for foreign investors and help them successfully navigate Costa Rica's public sector bureaucracy. In particular, it was expected that the Minister, acting on behalf of the President, would work with and cajole multiple institutions, as needed, in order to clear the way for strategic investment projects. In other words, it was expected that the Minister would provide, on an ad hoc basis, the public-public coordination for which there were no permanent, institutional mechanisms.

As it turns out, the Minister did identify a number of strategic investment sectors, namely, Aerospace, Robotics, Nanotechnology, Audiovisual and Medical Tourism, and produced a number of bills of law focused on the reform of the public sector and the reduction of red tape (*simplificación de trámites*). Alas, the bills of law were not even submitted to the Legislative Assembly for discussion, as passing the legislation required by CAFTA-DR was the Executive's priority at the time, and the Minister did not have the resources to translate the identification of a potentially strategic sector into an actual working priority for the Costa Rican public sector. The Minister's work on behalf of specific projects may have made an important difference for those specific projects, but the overall picture of Costa Rica's competitiveness did not change.

Perhaps a key difference with respect to the Presidential Competitiveness Council under President Chinchilla is the relationship between the Minister of Competitiveness and the President, on one hand, and the relation between the Council and the President, on the other: while the Minister of Competitiveness had the full support of the President,

¹¹ The description of this counterfactual is based on Woodbridge (2015) and on Cornick's interactions with the Minister of Competitiveness on behalf of a foreign private investor.

the President himself was not involved in its work, there were no institutional mechanisms for reporting and follow up, and the President pretty much expected the Ministers to solve whatever issues an investor might have, without direct participation of the President, whose main priorities were elsewhere. In contrast, as just described, President Chinchilla chaired almost every meeting of the Presidential Competitiveness Council, and all participants knew that they were responding directly to her.

One could say that in order to confront long-standing competitiveness problems President Arias appointed a sharp-shooter, while President Chinchilla created a War Council. Considerable learning took place in both experiences, but Costa Rica has failed, so far, to institutionalize its competitiveness policy.

3.2 Analytics

Was the availability of TOP capabilities—or the lack thereof—a key factor in explaining the Council’s relative success, and its limitations as well? Was the initial stock of capabilities enough to accomplish its goals, or was it necessary to increase and/or upgrade¹² that stock? What role was played by the way the public sector organized itself (the organizational design) for the tasks assigned to the PCCI?

Let us look first at the key elements of the PCCI’s success, as far as it went.

First, the idea of creating the PCCI is explicitly the result of an in-depth evaluation of earlier PDPs and wide policy coordination efforts in Costa Rica. While neither the evaluation itself nor the feedback into policymaking were built into the policy process—rather, they took place as a result of IDB funded research with regards to evaluation, and of “policy entrepreneurship” in terms of using the evaluation as the basis for a policy proposal and actively seeking to convince policy makers to implement it—the process, in the end, bears clear resemblance to the EFA cycle described in the conceptual framework: “experiments” in wide policy coordination took place over the course of several administrations. The results were found wanting, and adaptation took place: a new mechanism for wide public coordination was designed and then deployed.

¹² By “increase” we mean, literally, acquiring more of the capabilities the institution already had; by “upgrade” we mean acquiring new capabilities, or taking the existing ones to a higher level.

Second, the two initial policy champions, namely, Monge and González, had high-level technical capabilities: post-graduate studies in the well-regarded U.S. universities, years of expertise in their fields, and active participation in international knowledge and practice networks.

Third, both of them had been close to policymaking and had first-hand experience on how the Costa Rican public sector works; in the case of Monge-González as advisor to policymakers; in the case of González as a high level policy maker herself.

Fourth, a conscious effort was made to present both the proposal and the research on which it was based in an objective, non-politicized manner. Interestingly, the creation of the Council was not crucial for González's success as Trade Minister, nor was Monge-González in need of a job—as we have seen, he ended up doing a considerable amount of pro bono work as technical secretary of the Council. Neither of them was working on behalf of any private group or sector. Therefore, when the proposal was presented there were no grounds to suspect that they were doing it on behalf as a way of furthering either their private agendas or those of their reference groups. The proposal was, clearly, a public-regarded effort to contribute to the solution of a chronic problem in Costa Rica's public administration, not some sort of lobbying effort, and it had solid technical foundations. This helped give it strong legitimacy, even in the eyes of those that were not initially convinced by it.

Fifth, the President's commitment to the Council was, as we saw, unwavering, and this made a very significant difference in comparison with earlier efforts in which coordination was delegated to a Minister, as described in the previous subsection. Minister González, a heavy-weight within the Chinchilla administration, was key in keeping the President focused on the Council's work.

Sixth, a key strength of the Council's unipersonal Technical Secretariat was access to expert knowledge. The Secretary's extensive network of contacts within the development community allowed him not only to quickly locate and identified expert knowledge when needed, but his familiarity with the workings of institutions such as the Inter-American Bank and the World Bank was put to good use to make sure that the required technical cooperation was secured and delivered in a timely fashion.

Seventh, the question of good mechanisms for public-public coordination has beset practitioners and students of public policy. Inability to secure and enforce good inter-institutional coordination is often blamed for the failure of policy initiatives. The PCCI illustrates the im-

portance of sheer political leadership—rather than the design of an administrative, formal mechanism—in achieving such coordination. Many of the actions that lead to the Council’s successes could not have been ordered by the President to her subordinates, let alone the heads of independent agencies. What is more, success in many cases required the collaboration of agencies formally under the authority of a Minister, but those agencies are by law granted so much independence that the real authority of the Minister is minimal. What the combination of the Council design and working mechanics did was to provide the President with a forum that she could effectively use to convince, cajole, persuade and to some extent even shame key decision-makers into implementing her agenda.

So much for the factors that contributed to the Council’s successes. In short, it seems that outstanding technical and political capabilities, as well as a clever organizational design, were key to the Council’s success. Organizational or managerial capabilities do not figure prominently in this story, mostly because there barely was an organization to manage, other than the unipersonal Technical Secretary and the Council’s meetings.

Let us now proceed to explore the factors that limited the Council’s success.

The first one was the failure to create a permanent, properly funded Technical Secretariat. This is one of those cases to which we made reference above, where something that should have been very hard was easily achieved, namely, securing the President’s commitment to and attendance at the Council’s meeting, whereas something that should have been extremely easy—and probably in fact would be easy in almost any other country—namely to secure the very modest funding required for a small technical secretariat, proved to be impossible. In fact, had Monge not been willing to work for many months without a salary, the whole project would have collapsed before even getting started.

The second was the failure to turn the PCCI into a permanent institution with a long-term mandate, stable funding and a stable core of professionals in the Technical Secretariat. To understand this failure, we need to look into two sets of factors: the first mostly outside the Chinchilla’s administration control—which could simply be called bad luck—and the second set at least partially within its control.

What the Chinchilla administration could not control was the polarized political climate that eventually led to the electoral victory of PAC, a party that had not previously won any elections, and which was founded in part as a reaction to what its leaders saw as pervasive corruption

within Liberación Nacional—the party that got Chinchilla elected—and an abandonment of the party’s founding principles regarding “social justice.”

Moreover PAC represented a view that was in direct opposition to the main features of the economic policy that Costa Rica had followed in the last 30 years.

To put things in context: the first, failed attempt at the liberalization of the telecommunications market was a landmark event in the creation of two opposing political blocks in Costa Rica: the one that had led the post crisis reforms, and one dead set against them. This second block is the one that led to PAC’s electoral victory in 2014. The referendum on Cafta-DR was a second landmark event in this confrontation, this one narrowly won by the pro-reform block. And the 2014 elections were the third landmark event, this one won by the anti-reform block.

In this political climate, the new government was likely to reject an economic policy initiative whose two initial champions were well known and influential members of the pro-reform block (“neoliberals,” in their opponents’ view) and which had been part of the signature *modus operandi* of a particularly unpopular incumbent. Lacking strong institutionalization, it was quite predictable that the PCCI would be abandoned by the new authorities.

However adverse the political climate, there was something the government could have done, and failed to do: create a strong constituency, outside the political party system, that would demand the continuity of the Council. Given the Council’s mandate, that constituency would have had to be the private sector. However, as we saw earlier, the private sector was not even part of the original design and, moreover, the Chinchilla government did not have a particularly good working relationship with the private sector, which was not deeply committed to the Council as the ideal instrument for public-private cooperation and for the coordination of wide PDPs.

In other words, when the Chinchilla government ended, there was no one out there willing to demand the continuity of the Council and powerful enough to convince or compel the government to comply with such a demand.

The PCCI’s story thus reveals the power of an alliance of highly qualified technocrats with highly experienced policymakers, combined with the full political support of a President who was able to provide strong leadership within her own government, but who was not able to elicit the external support that would have been required to give continuity, let alone formally institutionalize, one of her clearly successful initiatives. Without enough control of Congress to turn the decree that created the PCCI into a law, and without an external constituency with both

the strength and commitment required to demand its continuity, and in a highly polarized political climate, the PCCI was doomed to share the fate of previous, ad hoc, non-institutionalized attempts at achieving “wide” policy coordination and effective public-partnership in Costa Rica’s economic policymaking, such as the Program Impulso or the creation of a Minister of Competitiveness. The creation of permanent, effective institutions for wide policy coordination and effective public-private policy partnership remains a pending task in Costa Rica.

Now, if the creation of the PCC by decree rendered it a fragile institution, it seems useful to ask why did the Chinchilla administration not attempt to create it by law? A detailed answer would go beyond the scope of this paper, but the conceptual framework summarized in Figure 1 above allows us to at least outline some preliminary hypothesis.

The Chinchilla administration did not enjoy a congressional majority, and given the features of the Costa Rican PMP, filibustering is extremely easy. Had the Chinchilla administration submitted a bill of law for the creation of the PCC, the bill might have lingered there for years. The administration tried a different route: create the PCC by decree, put it to work from day one, show significant results, and then attempt to institutionalize it.

It was not unheard of strategy. In fact, this is exactly what happened with the institutions in charge of trade and export promotion policies: institutions were created bypassing congress and endowed with considerable TOP capabilities which resulted in outstanding institutional performance which then made it feasible to modify the institutional set-up (temporary, ad hoc institutions were transformed into permanent institutions, funded by the national budget and/or with independent sources of funding). This in turn modified, as far as the specific policies were concerned, some features of the PMP (continual congressional intervention is no longer needed to ensure the continuity of the programs and institutions in charge of them, other than the annual process of national budget approval).

Something similar might have worked in the case of the PCC. However, unlike the Minex (the precursor of Comex) and the IDB-funded Linkages program (the precursor of the Linkages Division at Procomer) the PCC was never properly funded or staffed, and by the time Chinchilla was sworn into office, Congress had become a more fragmented and polarized institution than it was at the time Comex was created.

Alas, it is not entirely surprising that the institutionalization effort failed in this case, in spite of a serious attempt to garner multi-party support for a permanent PCC during the last few months of the Chinchilla Administration.

4 Linkages Program at the Trade Promotion Agency (Procomer)

4.1 Narrative

Linkages-oriented PDPs were a late arrival in Costa Rica's economic diversification and export promotion strategy and, to this date, they remain a spirited but small sibling of the country's export promotion and FDI attraction policies.

The switch from an inward-looking to an outward-looking economic strategy, it must be remembered, took place in the immediate aftermath of the debt crisis in the 1980s. The first pieces of an export promotion policy were quickly put in place, and the country never looked back:¹³ while policies and instruments became gradually more refined and effective, the thrust and direction of the policy did not change over 30 years, and the institutions in charge of them became gradually more specialized and more effective in their deployment (CEPAL, 2014).

Not so with the promotion of linkages between local and MNCs, as CEPAL (2014), Paus (2005, 2014) and Padilla Pérez and Alvarado Vargas (2014), among others, have noted. The creation of linkages between local companies and multinational corporations was not a priority in the early years of economic reform, and efforts to promote them later on have been quite successful in terms of returns per dollar invested, but also quite limited in scale, as we shall see shortly.

As a matter of fact, it was only in 2001, or about 18 years after the change in the economic development strategy took place, that a formal program was put in place to promote linkages between local and multinational companies. This might seem a surprising omission from today's perspective: why not take advantage of the opportunity to create high-value added linkages between Costa Rican firms and high technology multinationals investing in the country?

However, it is perfectly easy to detect policy omissions with the benefit of hindsight. Back in the late 1980s the crucial challenges facing the country's economic authorities were to

¹³ The 2014 national elections were won by PAC, a political party that had opposed Costa Rica's trade and FDI attraction policies since its creation, in December 2000. However, once in power, PAC has made it clear that it will not attempt to renegotiate Costa Rica's numerous trade agreements, nor is it planning to overhaul its FDI attraction policy.

restore macroeconomic equilibrium and to reduce inflation, poverty and unemployment, all of which had soared during the crisis. FDI attraction policies were aimed at attracting companies that would create as many jobs as possible, as quickly as possible, and particularly jobs that could be filled by people with relatively little education, who had been hard hit by the crisis. If trade and economic authorities are concerned with “climbing up the value chain” today, back then their concern was at the same time more mundane and more urgent: to “climb out of the big hole” into which the economy had fallen.

At any rate, significant—albeit low value-added—linkages between local companies and multinationals developed spontaneously, and even to this day most local purchases by multinational corporations are unrelated to public policy efforts to promote them, as MNCs will inevitably purchase non-tradables locally: cleaning, food, security and some logistics services, as well as the supplies required for the provision of such services. Likewise, they will necessarily buy the water, electricity and telecommunications services from local suppliers and in some cases they are likely to purchase packaging materials locally.

What did not happen spontaneously was the development of significant linkages in tradeable goods and services, with local companies gradually “climbing up” the value chain and providing increasingly complex, knowledge-intensive inputs, parts, finished products and services to MNCs. Costa Rica has not been taking full advantage of the “knowledge spillover” effects of FDI, and on this front its performance pales before other other developing countries that have been successful in attracting high-tech FDI and developing local capabilities as well. By the year 2000, it was clear that Costa Rica could and should get more ambitious regarding linkages between local and multinational companies.

A small “Project for the Development of Suppliers for High Technology Multinational Corporations” was finally launched in 2001 at the National High Technology Foundation (FUNCENAT), with Inter-American Development Bank (IDB) funding and a Steering Committee made up of representatives of FUNCENAT, the Costa Rican Chamber of Industry, Cinde and Procomer (CEPAL, 2014). The composition of the steering committee was explicitly designed to foster interinstitutional coordination within the public sector as well as public-private cooperation.

The project had three components: a pilot program whose goal was to establish durable linkages between 45 local SMEs and high technology MNC; the development of an information

system that could match supply and demand between SMEs and MNCs, and an institutional component whose aim was the creation of a National Office for the Development of Suppliers to MNCS, which came to be known as Costa Rica Provee. Funding was rather modest, with an initial budget of \$1.5 million, of which the IDB contributed \$900 thousand (Vargas et al., 2010).

At this stage, the program did not focus on a specific type of linkages. This is perhaps a bit surprising: since linkages had been taking place spontaneously, it would have made sense to launch a PDP that focused precisely on those linkages that could not happen spontaneously. The emphasis at the time was, however, on fostering more linkages rather than “upgrading” those linkages.

In the origin of this program this origin we can observe several features that are common to several other successful attempts at developing highly capable PDP agencies in Costa Rica:

- As in the case of many of the activities originally undertaken by Cinde, the initial funding came from foreign technical cooperation, and the initial projects were small scale pilot projects.
- “Room for experimentation” was explicitly built into the project; that is precisely the nature of a “pilot project.”
- Because funding came of outside the public sector, the project enjoyed a more flexible management framework than the typical central government program or office in Costa Rica.¹⁴
- Just as in the case of exports, where promotion was initially “open to all” and only later became focused on specific sectors and activities, the promotion of linkages initially treated all linkages as equal, and the emphasis was on the number of linkages created, whether these involved tradables or nontradables, small or large transactions, or high or low value-added activities.

Unlike the Cinde case, and perhaps reflecting institutional learning, the eventual institutionalization of the program (that is, its transformation from a short term, small scale, foreign funded project into a permanent and locally funded project, assigned to a specialized

¹⁴ Projects funded through international cooperation used to have considerable flexibility in terms of administrative procedures, and the creation of “executing entities” was seen as a way of bypassing the rigidities and slow response time of traditional public sector procedures. Such flexibility has been lost, to a great extent, and funds lent or donated by multilateral institutions and cooperation entities are subject to basically the same rules as the rest of the public sector’s funds.

public agency) was an explicit goal of the project from the start. In 2003 Costa Rica Provee became a Procomer project, therefore finding an institutional home closer to its mission. Finally, when the last portion of IDB funding was disbursed, Costa Rica Provee was transformed into the Linkages Division within Comex (CEPAL, 2014). The program had become fully institutionalized.

Nevertheless, there were no substantial changes in the program's strategy: from 2005 to 2010 the Linkages program continued to focus on the number of linkages it could promote, not on the type of linkages or the value of the ensuing transactions.

Things started to change, quickly, around 2010, in the context of an overall redefinition of Procomer's strategy, methods and organization. While we will focus on the changes in the Linkages program, a few words on the overall strategy renewal at Procomer are necessary to provide the relevant context for our case.

What happened, starting in 2010?

First and most importantly, a new government took office, an old pro of trade negotiations and policy, Anabel González, was appointed as Foreign Trade Minister, and Jorge Sequeira was appointed as CEO of Procomer.

Sequeira's appointment marked somewhat of a breach of tradition at Procomer, where public sector technocrats with public policy experience had most frequently been appointed as CEOs. Nor did this appointment match a wider pattern that can be observed in Cinde (Clark, 2001; Cornick, Jimenez and Román, 2014) in which key program leaders rotate between policy-making positions, typically at the Cabinet level, and technocratic positions in policy-oriented private organizations. Sequeira came straight from the private sector, where he had built a software company from the ground up, turned it into an international software and information technology services provider, and eventually sold it to a larger, multinational corporation. He had no previous policymaking, political, or policy studies experience whatsoever.

It should be noted that the appointment of business leaders to policy-making positions is not unprecedented in Costa Rica, and in fact successful businessmen have been appointed as Ministers of Trade or Tourism on several occasions. Interestingly, however, they have not generally been able to substantially change the institutions they have headed or introduce into them business-like procedures, standards and efficiency. The case of Sequeira and Procomer turned out quite differently.

Prior to Sequeira's appointment, Procomer did not engage in formal strategic planning exercises, let alone develop and monitor performance indicators associated with the strategic plan. Sequeira set out to fundamentally change this state of affairs and shortly after his appointment Procomer came out with its first strategic plan, which was updated two years later, and it is programmed to be updated every two years (Procomer, 2010 and 2013).

Along with the strategic plans came a complete reorganization of the institution, a strong emphasis on monitoring and accountability, reflected in internal performance reports thrice a year and in regularly published annual and quadrennial reports, available at the institution's website, the development of key performance indicator for every department, program and person within the institution, and extensive use of information technologies to modernize its management: a Customer Relationship Management (CRM) system as part of the creation of a customer centric culture, an ERP for management and financial purposes, web based training tools for Procomer's personnel and for its customers. Perhaps more importantly, the organization was given a more precise focus.

A full description of the changes that have taken place at Procomer would go well beyond the scope of this report, so in the following we will focus on the changes that took place in the Linkages Division, which to a large extent were led by Rolando Dobles, who was appointed Director of the Linkages Division one year after Mr. Sequeira was appointed as CEO of Procomer, and who, like him, had a private sector background.

The two key changes in the linkages strategy were a shift from "generic" to "focused" linkage promotion, and from "matchmaking" to "business development." Let us explain each one of them in turn.

Before the 2010 strategic planning exercises, Procomer treated all linkages alike: whether they involved tradable or non-tradable goods and services, low or high knowledge content and value added, related or not related to strategic FDI attraction sectors, and whether large or small transactions were involved. They were all the same for Procomer. The number of linkages achieved each year was all that mattered.

This changed radically with the new strategy. Procomer created a web-based tool, "Market Place," where buyers and suppliers of non tradables can meet and do business. The "match-making" function, in other words, was digitalized, and the Division's scarce but highly qualified personnel were assigned to a more knowledge-intensive task: the promotion of high-

value added linkages in tradable goods and services, particularly in high priority sectors in the FDI attraction strategy, and the development of the local business capabilities required to make such linkages possible.

The new strategy was more ambitious than the previous one, and it was explicitly demand driven. While in the earlier strategy Procomer identified, at best, local capabilities, and then tried to match them to the demands of multinationals operating in the Free Trade Zone, now Procomer identifies first the demands and requirements of those companies, then surveys local capabilities to serve those demands and, if such capabilities are lacking but developing them is deemed feasible, it works with potential suppliers to develop them.

The role of the Linkages Program and personnel evolved, in short, from matchmaking to project development and management and the qualifications and skills of the Linkages Division needed to be adjusted accordingly. The adjustments were significant.

The position of “Linkages Promotor” was transformed into the position of “Project Manager.” English and formal training in project management were established as requirements, and of the six promotors working in the Linkages Division at the time, only three remain today, while four new ones were hired. Today, six out of seven project managers (not “linkages promotors”) are proficient in English at the TOEFFL 700 level, two are CAPM (Certification Associate Project Management) certified and two more are in the process of being certified, while three are in the process of obtaining their Master’s Degree in Medical Devices, Management and Economics, respectively.

Moreover, the metrics for job performance evaluation were changed. While in the previous strategy the number of transactions was the key indicator (and so a \$200 contract for a paint job was the same, for evaluation purposes, as a \$200,000 contract for the supply of specialized metal parts), now a set of nine different indicators is used, including customer satisfaction level, volume of transactions, development of suppliers and fundraising for new projects.

A key requirement for the success of the new strategy, however, was to go beyond Procomer’s “borders,” so to speak, and to work in cooperation with a large set of other public institutions, as the task of developing suppliers clearly was beyond what Procomer could do by itself. For example, potential local suppliers may have the narrow technical skills required by their potential clients (say, the skills required to produce metal parts according to specification)

but lack the managerial skills required for “just in time delivery.” Procomer is not set up to train managers, and for this it would require the cooperation either of the National Training Institute or of the public universities. Other companies may have all the required skills, but lack the certifications required to become a supplier in the medical devices or aerospace industries; again, helping companies get quality certification is a task beyond Procomer’s mandate and know-how. As a final example, some companies may need to scale up their operations in order to satisfy the demand of their potential clients, but they be too credit-constrained to do so and, once again, supplying credit or access to capital to potential suppliers is a task well beyond Procomer’s portfolio.

In other words, narrow policies were no longer sufficient; wide policies were required to achieve the new policy goals.

The context was favorable to the task of achieving wide policy coordination. As the reader will recall, at the same time that the Linkages program was being transformed, the Presidential Council on Competitiveness and Innovation was starting its work. The idea of creating mechanisms for wide policy coordination had caught up.

In the case of linkages, a strong step in the direction of better inter-institutional coordination was taken when an Inter-Ministerial Linkages Commission was created, with the participation of Procomer, Comex, Meic, Micit, Cinde, CCI, Cadexco, Azofras, Conicit, Camtic, TEC and INA. Besides its daily work, this Commission, with World Bank cooperation that was secured through PCCI, prepared a National Linkages Plan, the first of its kind, that was finished near the end of the Chinchilla Administration and is pending evaluation by the new authorities.

Cooperation with the private sector has gone beyond the broad issues tackled by the Commission and into specific programs or projects. For example, the Innovex program for the development of new direct or indirect exporters is executed jointly by the Costa Rican Chamber of Industry and Procomer’s Linkages Division.

So far, the new strategy seems to be working, but the program remains fairly small. Procomer reports (Procomer, 2014) 11 projects under the new strategy by early 2014, and a little more than \$10 million in new high value added linkages. This figure corresponds to “first sales” and does not accurately represent the eventual impact of the initial linkage (Procomer does not track sales of “linked” companies after the first sale), but even allowing for that, the figure is almost negligible.

However, Procomer has mapped in detail the potential demand for high value added, locally produced, tradable goods and services, and it has found two obstacles for further linkages growth, neither of which can be overcome by assigning more resources to the Linkages Division.

In the first place, not all high-tech activities carried out by MNCs in the Free Trade Zones have the same linkages potential, as documented in detail in a series of Duke University studies regarding Costa Rica's participation in global value chains (see Gereffi et al., 2013, for an overview). In electronics, for example, the potential is limited because Costa Rica does not produce the raw materials the industry demands, nor does it have the scale, number and variety of manufactures it would need to be competitive with China in major segments of this industry. On the other hand, services, the fastest growing segment of Costa Rica's Free Trade Zone exports, no matter how complex and knowledge intensive, by their very nature do not have a strong demand for inputs, machinery or parts, locally produced or otherwise. In contrast, the well-established medical devices cluster and the budding aerospace cluster have strong linkages potential.

Therefore, a necessary condition for faster growth in the number and value of high value added linkages is the growth of clusters and activities with high local linkages potential.

Simultaneously, there are limits in the supply of "MNC-ready" local suppliers. In some cases, technical capabilities may be lacking. In others, questions of scale, availability of finance, willingness to incur in risks, or lack of general quality certifications and/or sector specific, relatively costly certifications, are the binding constraint. Additionally, the availability of qualified personnel at competitive salaries seems to be becoming a binding constraint (World Bank, 2013)

At the vocational or technical high school level the government can intervene directly, assigning more resources, increasing the number of technical high schools and even transforming conventional, "academic" high schools into vocational ones,¹⁵ but it will take time before the new graduates start coming to the market.

At the tertiary level things are a bit more complicated: public universities enjoy considerable autonomy, and the best the government can do is try to persuade them to graduate more professionals in high-demand careers, something these universities have not been particularly inclined to do. The quality of education at private universities, on the other hand, is

¹⁵ And in fact did so during the Arias and Chinchilla administrations. (Ministerio de Educación Pública, 2014)

very uneven and most MNCs will hire, preferentially, from public university graduates.¹⁶ However, the public sector does not have the tools required to increase the average quality of private universities, let alone change their academic portfolio. But again, even if the government succeeded in ensuring both high standards and university offerings more in line with the needs of the productive sector, it would take quite some time before new graduates reached the market.

To sum up, the binding constraints on creating more linkages cannot be removed by investing more money today in the Linkages program, but rather by long-term, wide policies on both the demand and the supply side of local (tradable) goods and services. The National Linkages Plan mentioned above, produced by the Linkages Commission and under study by the new authorities, attempts to do precisely that, in conjunction with Cinde's and Comex's efforts to attract industries with higher linkages-potential, and to ease supply constraints, for example, by taking advantages of Free Trade agreements with other Latin American countries.

One final note: the Linkages program, at Procomer, focuses on linkages between domestic producers and MNCs. However, linkages can take place between MNCs as well (and, from the point of view of an input-output matrix, the nationality of the owners of a company does not matter) and, as a matter of fact, such linkages are sought by some MNCs and actively promoted by Cinde, as we shall later in this paper.

4.2 Analytics

What have been the keys to the Linkages Program's success so far? What has been the role of TOP capabilities?

It is interesting to start, not with our own appreciation but with that of Jorge Sequeira, Procomer's CEO. He pointed out three key elements that "make the difference" at Procomer (Sequeira, 2014):

- It is an independent institution, with a Board of Directors made up of five private sector representatives and four public sector representatives, including the Ministry of Foreign Trade, who acts as Chairman of the Board. This inde-

¹⁶ Over the course of several research projects Cornick has interviewed many high ranking officers from MNCs and they have consistently stated their preference for public university graduates, to the extent that some will not even consider private university graduates.

- pendence and the composition of the Board allow for policy stability: short-term politics has little or no impact on Procomer's work.
- It is financially independent as well: it is funded by a canon paid by Free Zones, and by a \$3 tax on customs declarations. Therefore, its budget is not subject to short-term variations as a function of political decisions or the cash flow situation at the Treasury.
 - It operates under flexible procurement and hiring rules, which are required to comply with the spirit of public sector regulations (openness, objectivity, transparency, competitive bidding and so on) but not with the minutiae of standard regulations. This allows Procomer to make purchases and enter into contracts, including labor contracts, at a close-to-private sector pace, rather than the glacial pace, subject to multiple stops and possible derailment typical of most of the rest of the Costa Rican public sector. With regards to personnel, in particular, operation under this relatively flexible set of administrative rules allows Procomer to hire qualified personnel quickly, offering competitive compensation packages and with the ability to do what in most public offices in Costa Rica is virtually impossible: demand performance, encourage and support underperforming workers to improve their work and, if needed, to fire those who fall short of the organization's standards and fail to comply with their goals, as defined in individual KPIs.

These features help us understand the interactions between TOP capabilities, on the one hand, and the institutional setup in which they operate, on the other: they seem to suggest that the effectiveness of a given stock of capabilities will be constrained (or enhanced) by the specific institutional context in which they operate, and it is limited by the availability of adequate, stable and predictable funding for the relevant institutions. On the other hand, an enabling institutional setup is required for the development of new capabilities or the strengthening of existing ones. To put it another way: managerial flexibility and "room for experimentation" were key elements in for the development of capabilities at Procomer and, at the same time, such flexibility was of the essence for Procomer to be able to put its capabilities to good use.

These points are illustrated by the profound transformation that Sequeira was able to achieve at Procomer in terms of organization, methods and focus over a relatively short period. Regardless of Sequeira's talents, such rapid change would have been almost impossible at a traditional public institution in Costa Rica. Procomer, even though it is a public institution, works under more flexible regulations (specifically provided to Procomer by law) which allow for such rapid change, as well as for private-like rules regarding contracts, purchases and human resource management, including the ability to hire at competitive salaries and to fire underperformers (Sequeira, 2014). An enabling institutional setup allowed Procomer's managerial talent to be put to good use, and at the same time, the new focus and strategy further the development of TOP capabilities within the institution.

While the relevance of the institutional context and of funding mechanisms may be more evident in this case than in the others we analyze, we believe that the observation is valid in general. If so, the success of Productive Development Agencies seems to be influenced, to an important degree, by at least three different factors: i) the institutional context, capabilities (in the sense we have been using the term in this paper; ii) conceptual and procedural knowledge that resides in individuals, companies, public institutions and other collectives); and iii) resources. And while the institutional context itself is inserted in the wider context of the Policy Making Process and the Political Economy of a given society (see Figure 1 above) we would argue that it makes sense to focus on institutional context, TOP capabilities and resources when trying to design a PDA or improve an existing one, because these three factors can be modified, to a certain extent, in the relatively short term and by focused actions on critical issues. Meanwhile, trying to change the Policy Making Process or the Political Economy, while noble enterprises, are much larger undertakings than those with which this paper is concerned.

We would like to add a fourth key element: the quality of the leadership at the head of the institution and of the Linkages program as well. Personal policy entrepreneurship, alongside high-level academic credentials, participation in global practice and knowledge networks, and previous policy experience on the part of González and Monge-González were an essential component of PCCI's success, as far as it went. Similarly, here, without the qualifications, experience, managerial skills, technological know-how and drive of Sequeira and the success of the Linkages Program would be hard to explain.

The authors of this paper do not particularly favor the “great men” theories of history. However, the two cases discussed so far seem to suggest that even with a favorable institutional context, adequate funding, and the right TOP capabilities, the chances of institutional success are at least highly correlated with the quality of its leadership. “Hiring the right people,” if this is correct, turns out to be a key element for success.

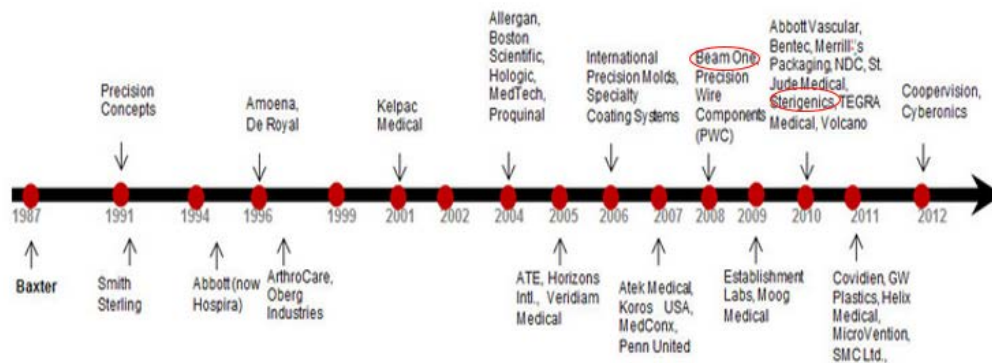
5 Medical Devices at Cinde

5.1 Narrative

The development of the medical devices sector is one of Costa Rica’s and Cinde’s great success stories, and it has been the object of a recent, in-depth study (Bamber and Gereffi, 2013) whose main results will be briefly summarized here. Then we can shift our focus to Cinde itself and how the organization was capable of achieving a landmark in the development of the Medical Devices Sector in Costa Rica: namely, the installation in Costa Rica of two plants that offer sterilization services to medical device manufacturers operating in Costa Rica, using two out of three key technologies in the field.

The development of the medical devices sector in Costa Rica can be traced back to 1987, when Baxter opened a production plant in the country. However, for many years after that, no other medical devices firm started operations in Costa Rica. Figure 2 illustrates the evolution of the sector (sterilization firms are highlighted with red ovals):

Figure 2. Evolution of the Medical Devices Sector in Costa Rica, 1987-2012

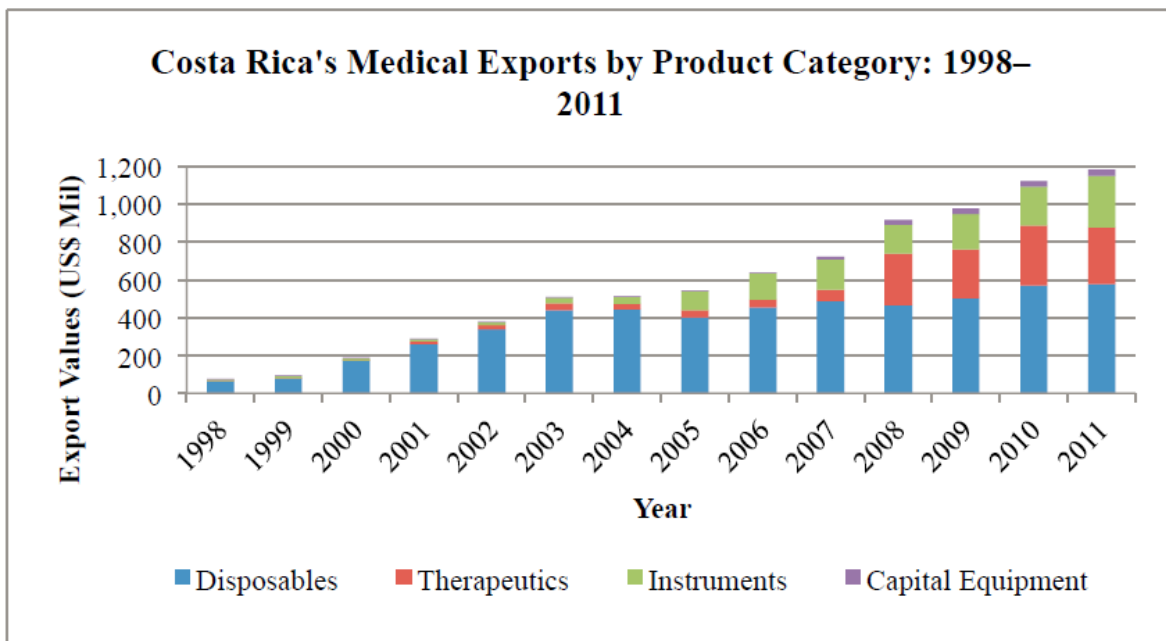


Source: <http://www.cinde.org/en/investment-sectors/life-sciences>.

Interestingly, just as in the case of Intel, Costa Rica’s success as a tourism destination was instrumental in the eventual development of a manufacturing industry: Baxter’s first contact with Costa Rica was through an executive who visited the country as a tourist, and as luck would have it, this happened at a time when Baxter was concerned with the potential disruptions that hurricanes could cause to its operations in the Caribbean. Costa Rica, close to the United States, but not subject to the impact of hurricanes,¹⁷ became a candidate and eventually was chosen as an investment destination.¹⁸

No new investments took place until 1991, and from then until 2001 a steady trickle of new firms invested in Costa Rica. After 2001, however, the sector’s growth rate became much faster, the complexity of operations performed in Costa Rica started to increase, and both exports and employment grew at a fast clip. Employment in the sector went from 1,500 jobs in 2000 (Cinde, 2012) to 15,633 by 2012 (Llobet, 2013), while exports grew rapidly and become increasingly more diversified, and with a higher share of higher-value added products, as illustrated in the following graph:

Figure 3.



Source: Bamber and Gereffi (2013: 36).

¹⁷ Caribbean hurricanes may have a comparatively slight impact on Costa Rica’s Caribbean coast, but none, other than some heavy rains, in the country’s central region, where most manufacturing is located.

¹⁸ While we cannot elaborate on the point here, one of Costa Rica’s competitive advantages seems to be the fact that it is a place where people like to live, and this applies both to foreigners and to Costa Ricans, including highly qualified ones who would have no trouble developing a successful career abroad.

Unlike what had happened in other sectors, suppliers of major firms in the sector soon started to set their up their own operations in Costa Rica, and sales from foreign suppliers operating in Costa Rica to manufacturing firms in the sector, for the 2008-2010 period, reached approximately \$7.5 million—a modest sum, certainly, but approximately 10 times as much as sales from local suppliers.

There were two drivers behind the decision of suppliers to set up operations in Costa Rica. The growth of the sector and the presence in Costa Rica of some of the top global manufacturers, the increased volume and complexity of their operations, and the good growth prospects of the sector, that is to say, the existence of strong and growing demand, were the first driver. But there was a second one.

In 2008 Cinde created an After Care Division (Cinde, 2010) with the purpose of facilitating the process of installation and start-up of operations after a firm decides to invest in Costa Rica, and to look after its needs once operations start, with several purposes:

- To ensure a successful experience for that company (which in turn helps strengthen Costa Rica’s reputation as a highly desirable investment destination);
- To encourage expansion and upgrading of the company’s operation; and
- To monitor and contribute to the improvement of the factors that make Costa Rica and the firms operating here competitive in their specific sectors and activities.

Ensuring a successful experience after the start of operations is particularly important for Costa Rica, where more than half of each year’s FDI takes the form of reinvestment by companies already operating in the country, which typically start operations on a small scale and focused on simple tasks and gradually expand the volume and complexity of their operations, as they either verify or discover that the country is capable of supporting larger and more complex projects than originally envisioned.¹⁹

¹⁹ As one of our interviewees put it: “you don’t have to give your bosses a reason to invest in China; everybody is investing in China. But you have to give them a good reason to invest in Costa Rica, and the track record of the operations in the country is the best reason you can give to them.”

One of the tasks of the After Care Division is to identify the needs of the companies operating in Costa Rica including the opportunities for local and foreign suppliers to operate in Costa Rica and contribute to realize agglomeration economies and spill-over effects.

In the case of the Medical Devices and other high tech sectors, Costa Rica's competitiveness hinges, among other things, on the productivity and qualifications of its labor force, not on cheap labor. This competitive advantage can be eroded if demand for properly qualified labor grows quickly, and the supply does not keep up, as some evidence suggests has been the case in recent years. Industries that rely on low-cost labor such as textiles and basic-function call centers have already ceased to be competitive given Costa Rica's labor and other operational costs.

In this context, Cinde has been working on several fronts to strengthen Costa Rica's competitive advantages. In the particular case of medical devices, an opportunity was identified: while the sector was thriving, there were no sterilization services in Costa Rica. This imposed a cost on all companies operating in Costa Rica, as production had to be sent for sterilization elsewhere, increasing inventory costs and extending the production cycle. Moreover, lack of sterilization services prevented the installation in Costa Rica of distribution centers and the logistics and marketing functions that can be associated with them.

Cinde, working in cooperation with manufacturers already operating in Costa Rica, mapped the sterilization industry and set out to systematically approach the companies in it, one by one, and to convince at least one to open up a plant in Costa Rica.

As a matter of fact, Cinde now regularly approaches during its promotion activities not only the ultimate target firms it wishes to attract to Costa Rica, but also their key suppliers, so as to make investment in Costa Rica more competitive, and to "anchor" the investments, as the costs of moving an operation from one location to another are higher if there is a well-developed supply chain in the first location.

Approximately seven years passed between the initial contacts with sterilization companies and the first firm's decision to open a facility in Costa Rica. Fortunately, Cinde plays a long-term game and it can pursue projects that will not yield results for many years, as in this case.

Paradoxically, while the search was long, the decision making process of the company that finally became the pioneer in the sector was quite swift (Vega, 2014). Several factors allowed the company in question, BeamOne, later acquired by Synergy Health, to make a quick decision.

In the first place, it was a relatively small, family-owned company, with a streamlined decision process.

Secondly, BeamOne's potential clients in Costa Rica were not already clients in the United States, and this made an important difference. For a company providing sterilization services in the United States or elsewhere to a firm already operating in Costa Rica, opening a plant in Costa Rica was a more complicated decision. On the one hand, it could help consolidate the client-supplier relationship by offering services close to the client's operation in Costa Rica. On the other hand, at least as far as clients already working with that company were concerned, there would be no net increase in business volume (services offered outside of Costa Rica would be moved to Costa Rica) but there would be investment requirements.

For BeamOne the decision was simpler: here there was an opportunity to acquire new clients and increase its sales.

The decision was made even easier because Cinde did not approach BeamOne by itself, but jointly with a potential client. If BeamOne decided to invest in Costa Rica, it would have its first client even before ground was broken at the site where it would build its plant.

It took BeamOne just three months from initial approach by Cinde and the potential client to final decision. The deal was sweetened by El Coyol, the Zona Franca where BeamOne built its plant, which offered them "a very good deal" (Vega, 2014) and the construction and permitting process took place smoothly, with Cinde's help. The plant opened with just one client, but it acquired a second one within seven months, and has more than 20 clients currently, including some plants outside Costa Rica that send their products for sterilization here.

Operations started in 2008, with an electron-beam sterilization plant. Between 2010 and 2011 a second electron-beam sterilization operation was put in service, as well as an ethylene oxide operation.

In 2010 Sterigenics, another sterilization services provider, started offering its services in Costa Rica. Several of the company's clients were operating already in Costa Rica, and by 2010 the scale of their operations was large enough to justify opening up a plant in Costa Rica, an option the company had already been considering (Tucker, 2014).

Between the two companies, there is ample room for growth without further capital investments, as plants are not yet operating 24/7.

Gama Ray sterilization services, used for very high density products, are not yet offered in Costa Rica and it is unlikely they will be offered soon, as there is not enough volume of such products to justify the investment just yet.

While the establishment of sterilization services made the medical devices firms operating in Costa Rica more competitive, perhaps the most important impact was that it made the country more attractive to new firms, not previously established in the country, and allowed them to undertake more ambitious operations. The large number of new firms opening up plants in Costa Rica after 2008, and the complexity of the operations of firms such as Saint Jude Medical and Abbot Vascular (see Box 9.4 in Inter-American Development Bank, 2014). seems to validate this hypothesis. The fact that these two firms set up shop at the same Free Trade Zone where one of the sterilization services companies is located would seem to indicate, moreover, that the Medical Devices cluster is beginning to reap significant economies of agglomeration.

5.2 Analytics

From all our cases and episodes, the installation of two firms offering sterilization services to medical device manufacturers in Costa Rica is probably the one with the greatest potential impact on Costa Rica's competitiveness and export performance. As discussed in the previous section, having these services in Costa Rica allows manufactures to reduce inventory costs and to achieve faster delivery times to final clients, and opens up opportunities for the establishment of distribution centers in Costa Rica, adding another link to the value chain, expanding the volume of business taking place in Costa Rica and possibly reducing logistics costs and further reducing delivery times to final clients.

We expected this case to be associated with a significant, discrete capability upgrading at Cinde, as in the previously discussed case of Procomer, but this was not the case. Rather, what we have found was an organization which, with regards to technical skills, operates under a process of "continuous improvement." The lesson is important: constant capability upgrading and small but continuous improvements, rather than a dramatic episode of capability upgrading (such as closing down an institution and replacing it with a new, supposedly higher-capability one) are what has led to remarkable results at Cinde. The process of capability upgrading is described in more detail in Box 2 below.

Box 2. Continuous Capability Development at Cinde

Cinde is an organization that has had to reinvent itself on several occasions, as documented by Clark (2001) and Monge-González, Vargas and Mata (2008). Of particular interest for our purposes is how Cinde has adapted and increased its technical capabilities in response to a changing environment, budget and mission. Continuity of key personnel, well-instituted mentoring practices, use of top-level foreign advisors, participation in global knowledge networks, performance management and careful selection of personnel, which pays as much attention to hard as to soft skills, are the central elements of Cinde's technical capabilities continuous improvement system.

Cinde's current staff is made up of about 45 employees, 40 with university degrees. Four of them have been with the organization for more than 15 years, and they play the double role of mentors of new personnel and repositories of institutional memory, in addition to their formal duties in senior positions at Cinde.

Cinde estimates that a new hire will take at least 18 months to get up to speed with her colleagues, and it has a formal "two person per meeting" policy: from managers to staff, nobody attends a meeting alone. Meetings are always attended by at least a senior officer and a junior officer, who learns by observing and will not be assigned substantial responsibilities until the "mentor" thinks she is ready for them.

From its very start as an FDI attraction agency, Cinde tried to mold and measure itself against the best agencies in the world, not against some local or regional standard. Technical cooperation for Ireland's IDA was secured early on, and a new consultancy with that agency was recently hired. In addition, Cinde tries to keep its personnel abreast of industry and sector developments by actively participating in training events during international tours and trade fairs.

Finally, Cinde is careful in its personnel selection, and tries to hire young professionals that are eager to learn new skills and want to "make a mark" with their work, and then subjects its employees to rigorous performance evaluations, with consequences. On the one hand, about one out of 40 professionals is let go each year. On the other, performance bonuses can equal up to two monthly salaries.

Unlike the case of Intel, where a one of a kind, first-ever, all-out campaign was launched to convince the company to open up a plant in Costa Rica, the search for and active promotion of investments by key suppliers of firms operating in Costa Rica was, by 2008, “business as usual” at Cinde. The key, besides consistency and a long-term strategy, is that “business as usual” at Cinde is conducted at an unusually high level. In other words, Cinde has reached a point in which it can achieve extraordinary results by doing its ordinary work. This is exactly where you would want an institution to be, rather than in a position in which great results demand heroic efforts, which, by definition can be undertaken only so often.

Cinde has a long history of adapting to changing circumstances, including the provision of services that reach a “mature” stage and then are transferred to another institution, the closing down of programs that have fulfilled their purpose and are no longer needed, and the need to adapt to dwindling budgets and to developed new skills and increased levels of specialization as the profile of the Costa Rican export sector and the country’s competitive advantages change.

There were two key organizational changes that eventually led to the “service model” that allowed Cinde to identify the need/opportunity to establish sterilization services for the medical devices industry.

The first change took place in 2000. Up until then, Cinde had a number of offices outside of Costa Rica, and those offices were in charge of seeking investments from all companies operating within a certain area. Specialization was geographical, not sectoral. Back in Costa Rica, Cinde had sector experts who worked in conjunction with those regional offices.

Budget cuts forced Cinde to close its regional offices, and to deploy its FDI attraction efforts from Costa Rica. A geographical specialization was no longer possible, and Cinde shifted to a sectoral specialization. If the shift was forced—or at least its timetable accelerated—by budget cuts, it proved nevertheless providential: in-depth knowledge of the sectors on which it focuses, and of the needs and requirements of companies operating in those sectors, has been a key to Cinde’s success. Sector specialists plus a business intelligence unit ensure that when Cinde approaches a company, it knows everything it needs to know to make a convincing case for investment in Costa Rica.

The second change took place eight years later, when the After Care Division. If sector specialists plus business intelligence make sure that Cinde knows what it needs to know in order to convince a company to invest in Costa Rica, the work of the After Care Division ensures that

Cinde knows what that investor needs in order to prosper in Costa Rica and to expand and upgrade its operations (Gross and Soto, 2014).

It was, therefore, the combination of skills of sector specialists, business intelligence and After Care services that allowed Cinde to identify the need for sterilization services and the impact of those services in terms of costs and competitiveness for the sector as well as in terms of facilitating further expansion of the sector. These attributes also enabled Cinde to partner with a potential client and then work consistently for years until the first sterilization firm started operating in Costa Rica.²⁰

Outstanding TOP capabilities, that is to say, outstanding technical, Organizational and political capabilities, under a favorable institutional framework, operating under a highly qualified, goal-oriented and committed leadership, seem to go a long way towards explaining Cinde's success, as illustrated by process that led to the establishment of two medical devices sterilization companies in Costa Rica.

6 What Have We Learned?

6.1 Do Institutional Capabilities Matter for Institutional Performance?

Of course they do! Posed at such general level, the question is trivial and the answer is obvious. Things begin to get interesting when we ask: which specific capabilities? How do different types of capabilities interact with each other? Under what conditions are institutions able to improve their capabilities and develop new ones? Those are the questions addressed in this paper, through three cases studies, using the TOP Capabilities framework. A very brief summary of the preliminary conclusions suggested by our research might be useful:

- Capabilities by themselves do not lead to performance. Capabilities in the context of an enabling institutional context do. The TOP Capabilities framework works better if integrated within a larger conceptual framework that takes into account the political economy, the features of the Policy Making Process, and the institutional setup. At the same time, completing a virtuous

²⁰ Cinde does many other things, besides helping develop a local supply chain, to support companies that have invested in Costa Rica and to maintain the competitiveness of those companies, and of Costa Rica as an investment destination, but the description of those activities is beyond the scope of this paper, except for some work aimed at developing local suppliers, which will be discussed in the next section.

circle, an enabling institutional context allows institutions to constantly upgrade their capabilities.

- The political economy, the PMP and the institutional setup may be thought of as constraints on capability development and institutional performance in the short run. Over more extended periods, however, outstanding institutional performance that leads to highly successful PDPs can have feedback effects that facilitate or induce changes in the institutional setup, the PMP and the political economy. Constraints are fixed only in the short term, and clever policy design should lead to a lessening of those constraints.
- Isolated capabilities do not lead to performance. The right combination of capabilities does. Well-run institutions that combine good technical and political capabilities lead to outstanding performance.
- There is no one set of capabilities that is the “right set.” What is more, successful PDPs will lead to a changing environment in which the institutional capabilities required for successful policymaking will change and in all likelihood become more demanding. Here again the institutional context makes all the difference. Institutions that excel are institutions that are able to experiment, capable of learning from their experiments and adapting as a result of such learning. In other words, EFA cycles are key for the improvement of capabilities and institutional performance, but they only work in an enabling institutional setup. It is not a coincidence that none of the institutions we studied works under standard public sector management and procurement rules.
- Participation in global knowledge networks, and exposure to the academic, institutional or business performance standards and practices plays a crucial role in creating institutions that “shoot for the top” instead of “settling in the middle” or “sinking to the bottom” in terms of performance.
- There is no substitute for high-quality, achievement-oriented, self-motivated personnel, particularly in leadership positions. Personnel management, from selection to performance evaluation, performance-related compensation and continuous, on the job learning, is a fundamental requirement for capability development and outstanding institutional performance.

6.2 Does the TOP Capabilities Framework Help Us Understand Institutional Performance?

6.2.1 The Role of Technical Capabilities

The technical capabilities of most of the leaders (and in some cases the rest of the personnel) in all the cases we studied include post-graduate studies in developed countries, participation in international knowledge networks, and frequently experience as international consultants and in several cases work experience in the private sector. Training and the continuous acquisition of new knowledge are strongly emphasized at Cinde and Procomer, in particular.

While we have not established, of course, that these technical capabilities are the cause of high institutional performance, nor have studied counterfactuals in which, all else equal, lack of technical capabilities might be a plausible explanation of differential institutional performance, it is at least suggestive that none of the success cases we have studied display low technical capabilities at the top. Moreover, interviews with representatives from multinational corporations conducted by the authors over the course of many years tend to suggest that, at least in the case of Cinde, high technical capabilities are, in fact, a key factor explaining good institutional performance.

Now, the commonality observed perhaps goes beyond “technical capabilities” in a strict sense, and it includes a goal-oriented, high-performance, high-standards culture, that seems to be at least partially associated with the experience of living, studying or working abroad in developed countries and at high quality universities. That is to say, there are elements of “corporate culture” that are crucial, in the sense that without them high technical capabilities might not be appreciated or properly used.

6.2.2 The Role of Organizational Capabilities

Cinde, Procomer and the CCI seem to be well managed organizations, with professional boards of directors and experienced, well trained managers. Cinde and Procomer regularly perform formal strategic planning exercises. They all produce annual reports, comply with formal accounting procedures and so on.

It should be noted, however, that they all are very small institutions. In previous work the authors have wondered why Costa Rica has not used its most successful public institutions as “templates” for the development of other high performing public institutions, and perhaps part of

the answer is that the “technology” that Costa Rica has mastered is that of creating high-performance SMALL institutions. Successfully running large institutions (say, ICE, the public power utility, or the Ministry of Education) may require a different set of managerial or operational capabilities, one that (in recent history) is nowhere in evidence in Costa Rica’s public sector.

Two additional points need to be made, both pointing to limitations of the TOP Capabilities framework.

In the first place, the choice of terminology does not seem particularly inspired. In our case studies, when we look at “organizational capabilities” we end up looking at “managerial capabilities,” and perhaps this is the term we should use. Not only does it seem to have a clearer meaning than “organizational capabilities,” but it also refers, immediately, to the vast literature on management in general and public management in particular that probably should be brought into our conceptual framework if we want to achieve a better understanding of institutional performance.

The second comment is more substantial: the TOP capabilities framework does not provide a clear definition of organizational capabilities, let alone clear guidelines to operationalize the concept. What exactly is meant by operational capabilities? How can they be identified and measured?

If we stop for a moment to consider this last statement, one of the two weakest links²¹ of the TOP capabilities frameworks becomes evident: in order for capabilities to serve as explanatory variables of institutional performance, we need to be able to identify and measure capabilities independently of performance. Otherwise, our reasoning is circular. In its current state, the TOP capabilities framework fails this test.

6.2.3 The Role of Political Capabilities

Alliances between policymakers and technocrats (and switching between roles as one or the other) are common in all the cases we studied. The General Director at Cinde was a former Deputy Trade Minister and had worked for a MNC before assuming her position at Cinde; the PCCI was the result of a joint effort by the Ministry of Trade and a technocrat who had a long history both

²¹ The second one will be discussed shortly.

as consultant and policy adviser; the Executive Director at the CCI is a former Deputy Minister of Economics. In the case of Procomer, its board of directors is chaired by the Ministry of Trade.

It would seem, therefore, that in all of our cases we have indicators of high political capabilities and that these capabilities are one of the reasons for the successes we have described.

Again, our indicators are quite imperfect. Obviously, politically experienced people play a role in all of our cases. Political experience and political capabilities, alas, are not synonymous. Once again: we do not have the conceptual and / or empirical tools to identify and measure capabilities independently of performance, and until we do, the explanatory power of TOP capabilities will be quite limited. Case studies and intuition point to an important role, but our grasp of exactly what that role is remains tenuous.

6.3 The Interaction between TOP Capabilities and the Institutional Framework

6.3.1 The Role of International Cooperation

Here we find another common factor: in all our cases, international cooperation played a key role, particularly in the early stages of policy and institutional development. International cooperation seems to have been key element in enabling “trying out new things.”

More specifically, international cooperation provided the “room for experimentation” that is so hard to find in the Costa Rican public sector, and which plays such a crucial role in terms of the development and upgrading of capabilities and policies, as described by the EFA cycle.

The pattern seems clear: programs are launched with international cooperation funds—and hence, do not compete for general budget funds, and therefore do not face opposition for those benefiting from those funds—and are transferred to the public sector, or institutionalized, once they have reached a certain scale and degree of success and support.

6.3.2 Private Sector-Like Governance Rules

None of the organizations we studied work under standard public sector rules. Cinde and the CCI are, of course, private organizations. Procomer is a public organization, but it works under special, more flexible rules than the standard in the public sector. In effect, Procomer is required to follow “the spirit” but not the letter of normal public sector administrative and procurement procedures.

Crucially, all three can fire underperforming personnel, can hire under competitive conditions, and can offer at least some form of performance-based, variable compensation.²²

6.3.3 Policy Stability: The Result of Political Capabilities, the Prerequisite for Learning

Policy and institutional stability seem to be prerequisites for institutional learning and therefore, for the development of new capabilities or the upgrading of existing ones: if policy goals are constantly changing, institutions cannot learn what works best in achieving those goals. Similarly, since at least an important part of institutional knowledge is tacit and resides in people (that is to say, it is not completely captured by institutional routines, operating procedures, manuals, etc.), a stable core of technical personnel seems a prerequisite for achieving high levels of expertise and performance.

Clearly, Cinde and Procomer (as well as Comex, ICT and a few other institutions outside the scope of this paper, but analyzed in Cornick, Jiménez and Román, 2014) have benefited from both policy and (key) personnel stability.²³

The key question is how is this stability achieved. There seem to be two answers to this question: institutionalization (as in the case when a policy is anchored in a law, that creates the institutions in charge of the policy and provides them with adequate funding and a strong mandate) and “shared vision,” which are not mutually exclusive, of course. However, “shared vision” is critically important (so many laws are routinely ignored!), and it is the main mechanism for policy stability in the case of private institutions, which are free to change their mandates and reorganize their priorities and reallocate their resources at a moment’s notice.

Interestingly, there seems to be an inverse relationship between the stability provided by the institutional context and the features of the Policy Making Process, and the requirement of at least some Political Capabilities. In other words, when the institutional context and the PMP do **not** provide stability, political capabilities at the agency or specific institution level become crucially important if stability is to be had even in an unfavorable context. On the other hand, if the institutional context and the PMP **do** provide such stability, the leaders of Productive Development Agencies do not need to concern themselves with this issue.

²² We do not discuss the Presidential Council on Competitiveness and Innovation here, as there was hardly an “organization” associated with it.

²³ That is to say: they have been able to keep on board, for extended periods, key personnel, but in a context in which stability and promotion are performance related, unlike most of the rest of the Costa Rican public service.

6.3.4 The Issue of Funding

At the risk of stating the obvious, a stable, predictable budget seems to be a key factor in success (perhaps even more so than a large budget).

It is interesting to note, however, how the institutional framework shapes the ways in which such stable funding is available for different institutions.

In purely public institutions, funding may come from three different sources: annual general budget appropriations (which provide stability for the payroll, given the rules governing the Costa Rican public sector), earmarked taxes (which provide a more predictable general stream of income, though Treasury's cash-flow constraints may cause some disruptions) or some sort of user's fee, established by law but paid directly by the private sector. This is the case of Procomer, which is funded by a fee imposed on companies operating in the "Zona Francas," plus a tax on customs declarations. Procomer's budget is therefore secure (provided Zonas Francas and international trade thrive) and does not need to be approved each year by Congress.

At the other extreme we find the PCCI, where stable funding to pay for ONE consultant/technical secretary was never found, but this surely represents a strange Costa Rican peculiarity: in the current political climate, the use of consultants, let alone the discretionary hiring of consultants at competitive salaries, has been cast as synonymous with corruption. It is hard to think of other countries at Costa Rica's income level where the Presidency cannot find the funds, and feels politically constrained from using international cooperation funds, to hire a reasonably well paid consultant to work on one of the president's highest priority projects.

The cases of Cinde and the CCI are different, though, as they are private institutions.

Cinde, as has been documented elsewhere (Clark, 2001) had very generous funding from USAID, but such funding was eventually discontinued, and Cinde has had to rely on its endowment, and, increasingly, on fees it charges for its services. Currently Cinde receives funding from Zona Franca operators, through two mechanisms: a regular contribution and a "success fee" paid when a new company sets up or expands its operations in a particular Zona Franca. Additionally, local companies that wish to offer their services to MNCs operating in Zona Franca can advertise their services in Cinde's web page (for a fee, but after being screened by Cinde).

The CCI, on the other hand, relies on its own entrepreneurial efforts to fund itself, as previously discussed.

A point to note is that purely public institutions, no matter how entrepreneurial in spirit, cannot rely on self-funding mechanisms unless expressly authorized by law to do so.

6.3.5 The Relationship between the Institutional Context and TOP Capabilities

The relationship between TOP capabilities and institutional performance, as we have seen, is not independent of the institutional context in which these capabilities are deployed. The same capabilities may lead to outstanding or abysmal performance in different institutional contexts; symmetrically, very different capabilities may lead to similar outcomes, depending on such context.

At a more general level, and as suggested by Figure 1, the political economy, the policy making process, the institutional setup and TOP capabilities interact with each other. We have suggested that in the short term and in the analysis of the performance of specific institutions, the political economy and the PMP should be treated as “exogenous,” fixed variables, while in the long run successful policies (fueled by the right institutional set up and TOP capabilities) may have feedback effects and modify not only the PMP but also the political economy of a given society.

However, we must recognize that at this point we are doing no more than vigorously waving our hands. Our understanding of the relationships between the political economy, the PMP, the institutional setup and TOP capabilities is rather sketchy and imprecise. If we have made a contribution here, is that of pointing out the interactions between them, and the need of further developing our conceptual understanding and empirical studies of these relationships.

6.4 Public-Private Cooperation and Other Alliances

6.4.1 Development-Minded Private Sector Leaders

There are elements of public-private cooperation in all the cases we have discussed. What is worth noting, at this point, is that our case analysis suggests that a key factor in success has been the participation of a “development-minded” private sector in these cooperative endeavors. We do not wish to suggest that business leaders participating in these processes are selfless, somewhat angelic agents that disregard their own interests and think only of the general good. We assume, in fact, that this is not the case. What is interesting is that they **also** think and work for development processes in ways that are not narrowly aligned with their particular sector or com-

pany-specific interests. This same public-regardedness has been noted, for example, in the case of Colombia's Private Council for Competitiveness.

If this appreciation is correct, it poses a set of questions for which we do not have even preliminary answers: if a development-minded private sector is a key factor for successful public-private cooperation in productive development policies, what is a policymaker to do if it finds that its private sector counterparts are interested in just plain, old fashioned rent-seeking? How does this development-mindedness arise? Is there anything that policymakers can do to encourage it, when it is not present or sufficiently strong?

6.4.2 The Quality of Leadership

Our case studies also suggest that the quality of the managerial and technocratic staff at the institutions we have studied seems to be another key success factor. This quality comprises not just formal education and technical knowledge, but also leadership and a goal-oriented mentality. In all cases, we seem to be in the presence of people who are "in search of excellence" and who wish to "make a difference" with their work.

This leads us to questions that are similar to those posed in the previous subsection: if hiring "the right people" is a key to success, what are the qualities that define "the right people" and how do you identify them? And, crucially, if those qualities are lacking, how do you develop them?

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