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Evaluating competitiveness impacts of regulatory reforms in the Brazilian cashew industry

Hugo Santana de Figueirêdo Jr and Bryanna Millis

This work evaluates regulatory impacts on the Brazilian cashew industry through the pilot use of CIBER, a value-chain-based approach, to identify and measure regulatory constraints and to enact regulatory reforms in donor-funded development projects. Drawing from secondary sources complemented by primary field research, all the CIBER-suggested steps are followed. The results reveal that tax and credit regulations should be priorities to improve the competitiveness of the cashew business in Brazil, and that CIBER can be an effective tool to expand industry analysis and to design reform strategies towards improved competitiveness.

Évaluation des impacts sur le plan de la compétitivité des réformes des réglementations dans l'industrie brésilienne de l'anacardier

Ce travail évalue les impacts en matière de réglementation sur l'industrie brésilienne de l'anacardier à travers l'utilisation pilote de CIBER, une approche basée sur la chaîne de valeur, pour identifier et mesurer les contraintes des réglementations et pour mettre en application les réformes de la réglementation dans les projets de développement financés par des bailleurs de fonds. En se basant sur des sources secondaires complétées par des recherches primaires sur le terrain, toutes les étapes suggérées par CIBER sont suivies. Les résultats révèlent que les réglementations en matière de taxes et de crédit devraient constituer des priorités afin d'améliorer la compétitivité de l'industrie de l'anacardier au Brésil, et que CIBER peut constituer un outil efficace pour élargir l'analyse de l'industrie et concevoir des stratégies de réforme dans le sens d'une compétitivité améliorée.

Avaliando os impactos de competitividade de reformas regulatórias na indústria de caju brasileira

Este trabalho avalia os impactos regulatórios sobre a indústria de caju brasileira através do uso-piloto da CIBER, uma abordagem baseada na cadeia de valor para identificar e medir limites regulatórios e para executar reformas regulatórias em projetos de desenvolvimento financiados por doadores. Recorrendo a fontes secundárias complementadas por pesquisa de campo primária, todos os passos sugeridos pela CIBER foram seguidos. Os resultados revelam que as regulações de impostos e crédito devem ser prioridades para melhorar a competitividade da indústria de caju no Brasil, e que a CIBER pode ser uma ferramenta efetiva para expandir a análise da indústria e montar estratégias de reforma em direção a uma maior competitividade.

Evaluando los impactos en la competitividad de las reformas reglamentarias en la industria de la nuez de la India en Brasil

Este ensayo analiza los reglamentos en la industria de la nuez de la India en Brasil utilizando el método experimental CIBER, un método basado en la cadena de valor, para identificar y medir las limitantes de los reglamentos e impulsar reformas reglamentarias en proyectos de desarrollo financiados por donantes. Basándose en fuentes secundarias y en investigaciones sobre el terreno, se pusieron en práctica todos los pasos sugeridos por el CIBER. Los resultados indican que, para mejorar la competitividad de la industria de la nuez de la India en Brasil, la prioridad debe radicar en reglamentar los impuestos y créditos. Una segunda conclusión es que CIBER puede ser un método eficaz para estimular la competitividad de la nuez en Brasil, para profundizar los análisis de la industria y para elaborar estrategias de reformas que logren incrementar la competitividad.

KEY WORDS: Aid; Governance and public policy; Labour and livelihoods; Latin America and the Caribbean; Methods

Introduction

Value-chain competitiveness depends on the strategy and operations of firms and on the business environment in which they operate. Virtually all intervention-oriented value-chain assessments must therefore explore the competitiveness impacts of the business environment, including legal, regulatory, and administrative procedures.

Continuous efforts to evaluate regulations have been made for more than 30 years, since the conception of the Regulatory Impact Assessment (RIA) methodology, which ensures that the benefits of new laws and regulations exceed their costs (Morrall III 2001). The acceptance of the business environment as a key factor in private-sector competitiveness has grown significantly in the past decade, with the publication of international rankings such as the World Bank's 'Doing Business' reports. These rankings spur competition for reform among countries or sub-national regions and provide a set of numbers around which leaders can debate and orient reforms. Attention to the business environment also reflects on-going efforts in OECD countries to improve their ability to implement regulatory and administrative regimes that facilitate private-sector activities.

Regulatory reform initiatives also include efforts to measure how much businesses and economies are spending on regulatory burdens. The Standard Cost Model, used in Western Europe, is a framework for calculating administrative costs imposed by existing government regulations. This model is explicitly designed to disaggregate regulations into manageable components whose burdens can be quantified and extrapolated to estimate impacts on the affected business population (OECD 2008). The Competitiveness Impacts of Business Environment Reform (CIBER) tool, developed with funding from the United States Agency for International Development (USAID), builds on this predecessor (USAID 2008).

The CIBER approach provides a method of thinking about and quantifying the ways in which the business environment affects competitiveness. It also examines the costs and risks of proposed reforms for private-sector and public-sector stakeholders, primarily in terms of the political and administrative feasibility of implementation. Using this information, researchers, project staff, and value-chain stakeholders are empowered to develop reform strategies.

This article presents the results of the CIBER approach piloted in the Brazilian cashew industry in 2008, together with lessons for CIBER use in other development projects.

Methodology and assumptions

In concert with value-chain mapping, researchers using the CIBER process identify constraints or reform priorities; model cost impacts of constraints or missed opportunities; include international price comparisons (as far as possible); conduct a feasibility analysis of political and administrative barriers to or opportunities for reform; and develop coherent advocacy approaches.

The CIBER approach assumes that value-chain competitiveness is inhibited by increased costs, insufficient quality standards, shipment delays, or other undesired effects. Targeted analysis is provided to the audience that is able to make the greatest use of it. Furthermore, the issues that rise to the top of the priority list through the CIBER process should be those that can be addressed in some form during the life of the project, or continued by local stakeholders after project completion. The political and administrative feasibility assessment contributes significantly to the determination of reform potential.

Results and discussion

USAID had been working with the cashew value chain in Brazil since 2005 as part of its Traded Growth for Micro and Small Enterprise Program, which supported the development of the poorer regions of the country by promoting the exports of local micro and small businesses, including cashews. Accumulated knowledge about the cashew value chain, and a network of players in the industry, were important reasons why this value chain was chosen as a pilot for CIBER.

The Brazilian cashew value chain and its challenges

A simplified cashew value-chain map illustrates the main stages from production to consumer (Figure 1). From the producer that harvests the cashews, the cashew nut (the fruit) and the cashew apple (the pseudo-fruit) move to different groups of processors through specialised wholesalers. After shelling, the cashew-nut kernel is traded to wholesalers, who distribute the nuts to consumers or for additional processing. Trends over time reflect a relative stagnation of cashew-nut exports in the face of increasing competition from both traditional producers and new entrants, leading to declining international prices.

A study of the Brazilian cashew-nut business (Figueirêdo Junior 2006; 2008) revealed that local producers suffer most as international competition stiffens. The production step of the cashew value chain in Brazil is very fragmented, and its inefficiencies lead to lower prices for producers. Thus, producers end up with little incentive to treat their orchards appropriately and invest in new technologies, thus jeopardising the entire value chain.

A comparison of the cashew value chains in Brazil, India, Vietnam, and Mozambique sheds light on industry-environment changes and the various roles in the new configuration of the

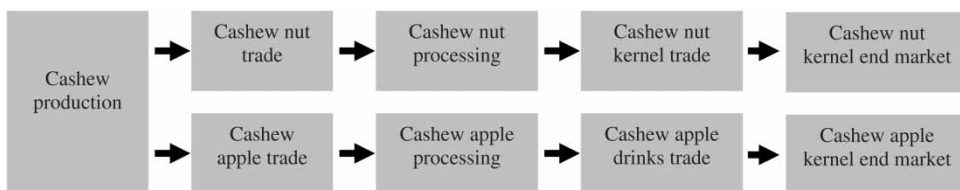


Figure 1: A generic and simplified cashew value chain

Source: Prepared by the authors

global cashew industry (Figueirêdo Junior and Sostowski 2008). High wages relative to competitor countries play an enormous role in inhibiting Brazil's ability to compete on cost. Average wages in the Brazilian industry (including both mini-mills and large factories) are US\$ 13.00/day, in contrast to the averages in India (US\$ 2.24/day), Vietnam (US\$ 2.06/day), and Mozambique (US\$ 1.52/day). Opportunities for Brazil as it confronts international competition and the challenges of an unfavourable local environment therefore include increasing sales to the domestic market, diversifying export markets, improving extension and financial services, expanding into other cashew-tree products, further automating shelling, and differentiating products for niche markets such as organic and fair trade.

Information on prices and typical margins obtained from interviews with representatives of the cashew-nut value chain in Brazil and from previous research (Jaeger 1999; Leite 1997) made it possible to estimate the average value added by stage of the value chain in this country for the 2007 harvest. According to this exercise, most of the value is added in processing and roasting, but most of the profit is located in retailing, where long-term contracts enable sellers to charge stable prices to the end consumers and transfer the risks of price volatility to the rest of the chain.

Identification of critical Brazilian cashew-business regulatory factors

A set of preliminary issues specific to the Brazilian cashew value chain was identified, using CIBER's regulatory checklist. These included regulations related to access to production factors (labour, capital, land, technology, and other inputs), business operational procedures (licences and taxes), and production commercialisation (trade and quality standards).

Next, representatives of each step of the cashew value chain, service providers, and government officials were interviewed in order to confirm this list of regulations, as well as to shed light on implementation and practical impacts on stakeholders. All of the individuals interviewed were located in Ceará State, the largest producer of cashews and exporter of cashew-nut kernels in Brazil, and they represented each stage of the value chain from graft grower to exporter.

These regulations were then classified by typology in order to obtain an idea of the effort required to reform them. It was essential to meet with stakeholders throughout the process, and multiple contacts with the same individuals were necessary to obtain the required information and to confirm preliminary results of the regulatory impacts. The iterative nature of those contacts enriches the quality of the estimates and generates complicity in implementation of the suggested reforms.

Interviews and field visits to cashew-producing farms and processing facilities provided details on regulatory issues requiring intervention:

- **Sanitary barriers to agricultural product imports:** these require inspections by the Brazilian Ministry of Agriculture prior to shipment from the port of origin and again upon arrival, to prevent the spread of plant and human diseases (ANVISA 2006; Brasil 1934; 2002).
- **Delay in payment of the state Value Added Tax refund:** exports are exempt from the *Impostos sobre Circulação de Mercadorias e Serviços* (ICMS), or Taxes on Sales of Goods and Services, and cashew-nut internal sales are also exempt from ICMS in Ceará State (Ceará 2008). Exporters are entitled to a refund on this tax, but they typically end up with ICMS credits from raw-material purchases that are not compensated.
- **Loss in payment of cross-border ICMS refunds:** the State of Piauí, the third largest cashew-producing state in Brazil, attempts to attract cashew-nut processing plants by exempting nuts sold within its borders from ICMS, while using an artificially elevated

price to charge tax on cashew nuts sold to other states (Piauí 2006). The resulting additional credit cannot be used in other states.

- **Delay in payment of federal tax refunds:** exporters are exempt from federal PIS (Social Integration Program) tax and COFINS (Contribution for the Financing of Social Security) tax on sales, but after purchasing raw materials directly from producers they have credits that cannot be compensated (Brasil 2004; 2005). These useless tax credits are eventually counted as a loss.
- **Working capital:** rural micro-credit is provided by government-owned banks that target only micro producers, excluding a large number of small cashew producers who badly need working-capital credit and therefore resort to higher-cost trade financing (Banco Central do Brasil 2008).
- **Labour costs:** government-imposed social benefits, originally conceived to protect workers, ultimately make employment more costly (Brasil 1974; 2007). Meanwhile, many companies do not comply with regulations, such that workers do not receive the intended social benefits, and companies face risks of sanctions from government inspectors.
- **Graft subsidies:** Ceará State Government buys quality grafts from certified growers and sells them to small producers to be paid for three to four years later, when trees start to produce. Although not a regulation, these subsidies influence the prices along the value chain.
- **Quality grading:** producers and processors have no incentive to improve cashew-nut quality, given that practically no price differentials exist between the worst and the best grades.

Of the eight regulatory issues indicated as relevant by the industry representatives, three were eliminated for further research: (1) sanitary barriers were not considered a primary concern, because the time delay in importing agricultural products reduces the risk of contamination; (2) the graft-distribution programme was considered to have a low impact on the value-chain roots of low productivity; and (3) while classifying cashew nuts by quality grade for trade was viewed as an interesting idea, none of the industry stakeholders wanted to risk price changes to implement it. Producers felt that they would waste poor-quality cashew nuts currently sold in the mix; intermediaries did not want to invest in facilities to separate the cashew nuts; and processors thought that producer prices might go up following grade classification. This issue would be a prime candidate for intervention – as a donor-funded project could play an important role in overcoming lack of trust among stakeholders – but, due to the extreme lack of interest in pursuing this line of enquiry among stakeholders and the short-term nature of this pilot, the potential could not be fully explored.

Five regulations remained viable for the analysis of their impact on the competitiveness of the value chain, with only four being at the industry-advocacy level: (1) the delays in paying tax-credit refunds at the state level (ICMS); (2) the State of Piauí artificial price reference for ICMS charge; (3) tax-credit refund delays at the national level (PIS/COFINS); and (4) the limitations on micro-credit working capital. The fifth, labour regulations, have already been identified as one of the main drags on Brazilian competitiveness (Netto 2008) and are the subject of several proposals being discussed in the Brazilian Congress. In the mean time, the effort to understand their impact on the cashew industry is worthwhile, but their level of advocacy for change is beyond the scope of one specific business activity.

Assessment of the likely impacts of addressing weaknesses in the Brazilian business regulatory environment

Average prices between the stages of the value chain were considered, in order to quantify the impact of the regulations, and typical costs and operational indicators of a firm at specific steps

of the value chain were estimated. For instance, if 80 per cent of the Brazilian cashew-nut kernel production is exported and 40 per cent of the cashew nuts are purchased inter-state, those percentages were used in the simulation to represent the average firm.

Delay in payment of tax refunds In the case of an average processor, buying the cashew nuts at market price and exporting 50-pound boxes of cashew-nut kernels, costs are increased by more than 5 per cent due to tax-credit refund delays and losses caused by the ICMS and PIS/COFINS regulations, which were originally conceived as means to promote exports. This increase of US\$ 3 in the cost per box has the potential to eat away almost one third of the processor's margin, considering the US\$ 104 price of a 50-pound box of cashew-nut kernels.¹ Furthermore, because exports are tax-exempt, the more the processor exports, the less the business can use its tax credits and the more it suffers from having to absorb the tax-credit losses in its costs. Thus, these tax-credit issues effectively penalise cashew-nut exporters.

Working capital Under the PRONAF (National Family Agriculture Programme), beneficiaries of government rural credit are divided into five categories, A to E, according to annual family income. An estimate of the annual family income of the cashew producers, based on the size of their farms (IBGE 1997), reveals that the PRONAF C category – with annual family income between US\$ 2353 and US\$ 5882, equivalent to farm sizes between 2 ha and just under 10 ha – is the applicable credit line for almost 40 per cent of the cashew producers.² The credit programme run by the official banks using those PRONAF credit lines has not been able to meet the credit demand from cashew producers. A comparison between the working capital provided per year by the two government banks operating the PRONAF credit lines in cashew-producing regions, Banco do Nordeste (US\$ 499,000/year) and Banco do Brasil (US\$ 279,000/year), and the estimated working capital necessary to fund the small cashew producers in Ceará State (US\$ 2,827,000/year), shows that there is a need to more than triple the available funds to meet the demand.

In fact, data from the Brazilian Ministry of Rural Development show that fewer than 3 per cent of the total cashew producers in Ceará State (approximately 1600 producers out of 57,600) had access to the PRONAF programmes during 2007. The credit volume in this period was close to US\$ 4.3 million, for both working capital and capital expenditures, with the average loan being around US\$ 2600 (Oliveira 2007).

Agroamigo, an innovative micro-credit system initiated in 2005, is being piloted by Banco do Nordeste, using the PRONAF funds. This programme targets producers in several rural activities, including cashews. The initial results show that Agroamigo has been able to speed up the credit-approval process to 30 days or less and reduce loan defaults by 50 per cent, compared with the traditional credit system. However, Banco do Nordeste has thus far made Agroamigo available only to the PRONAF category B, no more than 15 per cent of cashew producers. Furthermore, funds have thus far been limited to capital expenditures, while the latent demand is for working capital before the harvest season. So far, approximately only 2 per cent of the cashew producers that are eligible for PRONAF B in Ceará State have accessed Agroamigo, although this number is expected to grow as Agroamigo completely replaces the traditional credit model in the PRONAF B segment by 2010.

Approximately 25 per cent of cashew producers sell their production to intermediaries four months before the harvest season at huge discounts in exchange for working-capital advances, usually 50 per cent of the sales, with the rest being paid upon delivery during the harvest season (Figueirêdo Junior 2008). If Agroamigo is able to reach those producers with working

capital, the benefits to those producers could be as high as 40 per cent of the price they obtain from cashew sales.

In addition to restrictions of PRONAF by producer category, even within category B there is a limit to the proportion of fixed and working capital in the credit operations. There is no isolated working-capital lending, and the maximum allowed for each operation is 35 per cent of the total lending. Therefore, in addition to extending Agroamigo to the other PRONAF categories, it is necessary to remove the constraints on working capital to the PRONAF B category.

Government banks do have additional funds to implement the reforms in the PRONAF financing, but they face the challenge of offering a credit product that is both profitable to them and reaches the right people. In that regard, a feasible solution could be a commercial credit line with 1.5 per cent interest a month, which, while more expensive than PRONAF's 1.5 per cent a year, would be much less costly than the outrageous 30 per cent a month charged by intermediaries.

Labour costs As mentioned earlier, labour costs in Brazil are much higher than in other cashew-producing countries. These costs are partially related to the minimum-wage and exchange-rate policies pursued by the national government, but a considerable portion is due to the social costs charged to employers in addition to salaries. Competitiveness issues related to these costs are determined by two main factors: (1) the costs are extremely high and eliminate most if not all profit; (2) many businesses do not comply with regulations, and enforcement is incomplete and unequal, leaving employees without social benefits, increasing company risk, and altering the structure of the cashew-nut industry.

Data from Paula Pessoa (2003) illustrate that costs of compliance for a typical giant cashew tree (90 per cent of all cashew trees in Brazil are of the giant variety) after eight years of production, when yearly production reaches a steady state, are US\$ 0.44/kg of cashew nut, US\$ 0.19/kg for maintenance labour, and US\$ 0.25/kg for harvesting labour. Meanwhile, producers received US\$ 0.56/kg of cashew nut in 2007. Thus, labour costs, calculated as salary alone without the burden of social costs, represent more than 80 per cent of the total production costs in the case of the giant tree. If social costs are included at the rate of close to 60 per cent of the salaries for rural activities, as specified by the current regulations, the existing narrow margin is quickly transformed into a loss. Even for the more productive dwarf tree variety, the problem remains almost unchanged.

Many producers, therefore, do not comply with regulations and take the risk of judicial disputes or, in order to comply, eliminate essential leaf treatments to save money. Meanwhile, it is known that the government usually selects large producers for enforcement visits, due to its own limited personnel resources. As a consequence, large producers are abandoning their plantations, and the cashew culture is becoming more and more an activity of small producers or families, as these do not require third-party hiring. In fact, in contrast to grains and sugar cane, where automation is possible and has been sought vigorously, fruits like cashews continue to suffer from the effect of the high social costs of labour.

Another example of the influence of labour regulations on cashew-industry competitiveness occurs during processing. Total processing costs are estimated at US\$ 93 per 50-pound box of cashew-nut kernels (which sold for US\$ 104 in 2007) for a typical mechanised facility, which accounts for 98 per cent of the cashew nuts processed in Brazil. The raw material represents 68 per cent of total production costs. Labour costs, including social costs at the rate of approximately 80 per cent of employees' salaries legally applied to urban industrial activities, represent close to 18 per cent of the total production costs. Other production costs make up the remaining

14 per cent (Figueirêdo Junior 2006). Since all the mechanised processors are large companies, regulation enforcement is rigid, providing a stimulus for firms to continue automating as much of the process as they can. For labour-intensive activities that are difficult to automate, some large processors outsource to labour co-operatives that are subjected to lower social costs.

Assessment of the political and administrative feasibility of specific reforms

As a general principle, in addition to the potential impact, reforms that are more feasible to implement will have a well-defined demand, few constraints, a clearly identified natural champion within the industry to spark the debate and follow-up, accessible advocacy levels to the natural champions, and more 'winners' than 'losers'. The calculation of winners versus losers identified here is limited to the first tier – the cashew-industry representatives demanding reform, and the government or other parties who could be expected to lose revenue as a result of reforms. Another important consideration is any expected impact of the reform on a 'second tier' set of stakeholders, such as firms in other industries, beneficiaries of government revenue, etc. In the cashew industry in Brazil, those aspects were taken into account in order to evaluate the feasibility of the regulatory reforms (Table 1).

Delay and loss in payment of tax refunds Tax regulations have very well-defined demands, given that the goal in both situations is to allow the cashew-nut exporters to receive prompt refunds from their tax credits. The regulatory demands can, in fact, be very specific, as tax laws usually are written to cover specific business activities. The fact that these regulations are either advocated for at the local or at the national level by a natural champion makes the flow of the negotiations easier. And the geographic concentration of the industry in Brazil and its importance to Ceará State amplify the arguments of the natural champion. Those arguments have to be fashioned to soften government resistance, given that the tax cuts are constrained by government budgets and depend only on governmental will to take effect.

In this case, the argument can be made to the government that the benefits of the total tax refunds will outweigh the costs of the forgone taxes to the government budget. This kind of analysis, however, always represents a dilemma: how much must business activity be spurred to compensate for the tax reduction in the budget? Depending on the power dynamics of the value chain, the tax cuts may be appropriated unequally by the participants, and may never reach the consumers, thus not influencing the demand. Another legitimate and more convincing argument is that, if the value-chain participants in the country do appropriate the tax cuts, they will be in a better shape to compete worldwide, at least maintaining their current activity levels, including tax payment and employment levels. This transforms the government from a potential small loser, if the regulation is changed, to a certain large loser if the regulation remains the same.

Continuous complaints from the exporters affected by Ceará State tax-refund delays, including the cashew-nut kernel exporters, have already resulted in a timid reform initiative. Just recently, Ceará State passed a law which allows the ICMS credit holders to sell their credits directly back to the State – with a minimal discount of 8 per cent – in an auction where the State sets aside a limited sum of money to repurchase the credits. The auction winners are the companies that offer the largest discounts. However, because the total sum that the government sets apart for this purpose is apparently much lower than the credit supply in the market, this procedure has not resolved the issue and serves only as another form of institutionalised tax increase.

The case of ICMS regulation specific to the State of Piauí is rather different, due to the lack of consensus within the entire value chain that would benefit from reform. This regulation is part of an intentional Piauí State government policy to attract industrial facilities. Thus, despite the

Table 1: Brazil cashew value chain advocacy–feasibility matrix

		Issue				
		State ICMS (VAT) tax-refund delay	Piauí ICMS artificial tax charge	Federal PIS/COFINS tax-refund delay	Rural micro-credit target segment	Labour regulations
Reform demanded		Prompt refund of all ICMS credits to cashew exporters	Use of transaction prices for ICMS charge	Refund of all PIS credits to cashew exporters	Expansion of Agroamigo to all PRONAF categories, with working-capital credit to cashew producers	Reduction of social charges on the wages paid to cashew workers
Feasibility aspect	Advocacy level	State Treasury Secretary (primarily)	Piauí or Ceará State Treasury Secretary	National Treasury Minister	National Treasury Minister and Banco do Nordeste President	National Congress
	Natural champion	Processors' Association (SINDICAJU)	Processors located out of the State of Piauí (only part of SINDICAJU members)	Processors' Association (SINDICAJU)	Producers' Associations (fragmented under FAEC – Ceará State Agriculture Federation)	Unclear within the industry
	Winners	Exporters that process cashew nuts	Exporters in States other than Piauí that process cashew nuts	Exporters that process cashew nuts	Small cashew-nut producers and all cashew-nut processors	Cashew-nut producers, processors, informal workers, and unemployed
	Losers	National and State government	Piauí State government, Ceará State government, exporters located in the State of Piauí	National government	Cashew-nut traders	Cashew-nut formal workers, national government
	Constraints	National and State budgets	State of Piauí Industrial Policy, Ceará State budget	National government budget	Operational capability of government-owned finance institutions, national budget	Change in the national Constitution

Source: USAID (2008), prepared by the authors.

fact that most cashew processors are already located in Ceará State, there are a few processors in Piauí that are able to take advantage of this regulation by paying lower taxes than their competitors in Ceará. The Piauí government could also argue that the problem lies in the other state's legislations which do not recognise the credits of the processors at the prices set by the State of Piauí. Overall, there is no clearly identified natural champion, and there are many losers and constraints on the pursuance of this legislation change.

Alternative courses of action are identified regarding the use of the total PIS/COFINS (federal tax) credits by processors. A more difficult and risky option is to reorganise the value chain to be able to use the credits under the current legislation. If the producers form co-operatives to buy the cashew nuts and sell to the processors, all the PIS/COFINS credits would be gained by the co-operatives that sold in the internal market, and by the processors that did not buy directly from producers. The value-chain challenge is to reorganise the many producers into co-operatives and to face the foreseeable opposition from intermediaries, who may feel threatened by the bargaining power of the co-ops and their ability to sell directly to the processors. Strengthening the producer's bargaining power relative to the processors may also mean sharing the eventual tax benefits. The most straightforward reform would therefore be to change the current legislation.

Working capital The expansion of working capital credit beyond PRONAF B to other family-farmer categories is a clearly defined reform with a large number of potential beneficiaries: small producers, who form appealing targets for public policies. Therefore, it is potentially easier to convince the government to find resources to meet credit needs. However, the main constraint will still be the operational capability of government banks to deploy PRONAF credit funds effectively. Furthermore, while the location of the Banco do Nordeste headquarters in Ceará State facilitates the discussions, the fragmented representation of the producers reduces the legitimacy of the advocates. A possible champion to unite the producers is the Ceará State Agricultural Federation (FAEC).

Labour costs Labour policy is an extremely sensitive area for governments to navigate and for donors to support. The balance between economic and social needs often sets representatives of these two sides of the equation in stark opposition to each other. Through its policy development, the government of Brazil has demonstrated its commitment to social benefits; but, as labour costs in the cashew-nut industry make clear, these policies may not offer the most effective protection to workers, nor support the competitiveness of local industries. The role of social protection in the competitiveness equation is increasingly recognised and is an area of interest for donors, whose engagement may assist in bridging the deep divide between labour unions and the business community. However, intervention in this area is a long-term process which must be carefully designed in conjunction with a large number of stakeholders at the national level. Reforms may require constitutional change and associated legislative processes, suggesting that it is not a prime candidate for shorter-term intervention identified through CIBER. Opportunities for Brazil to differentiate its cashew products, such as socially responsible production, certainly exist; but alternative ways of funding welfare via social charges could also be investigated, to reduce the total cost of labour for firms.

Development of advocacy plans to support reform initiatives

A draft action plan was prepared for discussion with industry stakeholders to determine how to advocate for the suggested reforms (see Table 2). Meetings with institutional representatives

Table 2: Brazil cashew value-chain advocacy–regulatory matrix

		Issue		
		State ICMS (VAT) tax-refund delay	Federal PIS/COFINS tax-refund delay	Rural micro-credit target segment
Reform demanded (What)		Prompt refund of all ICMS credits to cashew exporters	Refund of all PIS/COFINS credits to cashew exporters	Expansion of Agroamigo to all PRONAF categories
Advocacy aspect	Advocacy level (Where)	State Treasury Secretary (primarily)	National Treasury Minister	National Treasury Minister and Banco do Nordeste President (headquarters is in Ceará)
	Natural champion (Who)	Processors' Association (SINDICAJU)	Processors' Association (SINDICAJU)	Producers' Associations (fragmented under FAEC – Ceará State Agriculture Federation)
	Timing (When)	The timing will depend on a number of factors, including policy-making schedule, existing reform efforts or efforts under consideration, etc.		
	Cost to competitiveness (Why)	Reduce costs to cashew-nut processors, which can mean lower prices and higher shares in the international market, higher prices to the cashew producers, or just a better financial situation for the processors	Reduce costs to cashew-nut processors, which can mean lower prices and higher shares in the international market, higher prices to the cashew producers' or just a better financial situation for the processors	Improve cashew orchards' productivity levels and small producers' standards of living by reducing their current financing costs
	Advocacy activities (How)	Work with the natural champion and other key stakeholders to develop an advocacy strategy that makes use of the financial impacts identified during cost modelling and engages public- and private-sector actors in a dialogue about how to better meet the goals of both sides if there are conflicting priorities, and/or develop an implementation plan to move forward with necessary changes		

Source: USAID (2008), prepared by the authors.

serve as the starting point to promote reforms, triggering a set of action-oriented discussions between the natural champions of the reforms and the institutions responsible for changing the regulations.

The analysis described above was presented to value-chain representatives to validate the results and generate momentum for reform. An existing forum for agribusiness discussions

was used to release the preliminary CIBER results. Some representative institutions then appropriated the reform initiatives for implementation, but follow-up activities are required to support the stakeholders in these activities.

During and beyond stakeholder-engagement meetings, project support for advocacy activities may take a number of forms. Clear presentation of the financial case to be made for reform (the cost analysis) is one useful product. More in-depth interventions may include working with stakeholders who may be expected to 'lose' from reform, in order to identify alternative sources of revenue, or to measure the gains that they may be expected to achieve through increased sales.

Conclusions

The CIBER approach builds on best practices in regulatory reform and adds additional elements to support local public and private partners to identify issues that affect competitiveness and advocate for their reform. The approach is designed to support donor-funded projects, particularly those engaged in value-chain strengthening activities, to engage in the regulatory reform arena. Working with stakeholders to identify priorities and develop cost models for reforms builds capacity among these groups and transfers ownership of the process to them. The iterative nature of the tool also serves to build trust among local groups and to support the project to serve as an intermediary as necessary. It also encourages debate to explore sustainable development policies.

Innovations of this tool include the use of cost-modelling for stakeholder-driven advocacy efforts, combined with an in-depth review of the political economy of the reform landscape. Building an understanding of historical factors, as well as current arrangements and initiatives governing the *status quo*, CIBER guides participants to craft approaches that advocate for reform through identification of common goals and mitigating 'losses' that often cause resistance to reforms.

The application of CIBER to the cashew value chain in Brazil revealed substantial burdens of tax and credit regulations and indicated related feasible strategies to improve sector competitiveness. This analysis took place mid-way through an existing USAID-funded programme in the area of trade development in Brazil. Thus, there was a great deal of information already available about the value chain, improving the detail and reliability of the model results. Within the value-chain project cycle, the CIBER assessment can be conducted in concert with early analysis of the targeted value chain or chains. The CIBER approach ensures that a regulatory understanding complements analysis of end-markets and the value chain within the project country and contributes to a comprehensive competitiveness strategy.

Notes

1. 15 per cent discount on the 12 per cent ICMS credit, calculated on 40 per cent of the raw material bought inter-state; 7 per cent per year on total credit, four years of delay; ICMS credit on raw material from Piauí that is not fully used, due to price considered for ICMS collection in Piauí 35 per cent higher than actual cashew-nut market price considered for ICMS credit and to industry-average purchasing of 15 per cent volume from Piauí State; COFINS credit on raw material that is not fully used, considering the industry average of 80 per cent exported volume.
2. Considers that the family income during the three-month harvest season comes from cashew, and from other cultures (beans, maize, bees, and animals) in the remaining nine months of the year (exchange rate US\$ 1.00 = R\$ 1.70).

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