Institution: University of Nottingham		
Unit of Assessment: 22 Development Studies		
Title of case study: Increasing the effectiveness of export subsidies in the Dominican Republic and Nepal (Collaborative with City, University of London)		
Period when the underpinning research was undertaken: 2012-2019		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	**Role(s) (e.g. job title):**	**Period(s) employed by submitting HEI:**
Dr Alejandro Riaño Dr Fabrice Defever	Associate Professor Assistant Professor	2012-2020 2008-2016
Period when the claimed impact occurred: 2014-2019		
Is this case study continued from a case study submitted in 2014? N		

1. Summary of the impact

Collaborative research by the University of Nottingham and City, University of London on the effects of export subsidies on firm-level and aggregate economic outcomes "*achieved a direct impact in improving the technical assistance [the World Bank] provides [B]*" to the Dominican Republic. This research shows that generous fiscal incentives offered in special economic zones (SEZ) hinder the dynamism of firms operating outside these zones and have a large fiscal cost. The World Bank attests that this work "*has made a very substantial contribution to identifying key challenges the Dominican Republic faces to become a high-income country by 2030 [B]*". The collaborative research has also been used by policymakers in the Ministry of Industry, Commerce & Supplies of Nepal to reform export subsidies with the aim of increasing their effectiveness in reducing the country's trade deficit and fostering export diversification.

2. Underpinning research

While export subsidies are ubiquitous across the world, according to the World Trade Organization in the 2006 edition of its flagship publication, the World Trade Report, there are fewer empirical studies investigating them than almost any other instrument of commercial policy. Not only is available data on export subsidies scant and hard to find, but the fact that subsidies are often subject to a range of different eligibility requirements (e.g. they are only available to firms located in specific geographical areas such as SEZ, exporting most of their output, or producing goods deemed to have potential to be sold in high-income countries) makes it extremely challenging to assess their impact on export performance and aggregate outcomes such as competitiveness and overall welfare.

The collaborative research led by Drs Riaño and Defever began whilst both were employed at the University of Nottingham, and continued after Dr Defever moved to City, University of London. In [R1] and [R2] Drs Riaño and Defever developed an analytic and quantitative framework to gauge how the imposition of export requirements on subsidies affects firm-level export performance (e.g. sales, number of firms exporting, and entry and exit into and out of foreign markets), as well as aggregate outcomes such as competitiveness and aggregate welfare. Applying this methodology first to the case of China, their research shows that the use of export requirements provides a significant boost to exports, but at a high cost in terms of aggregate welfare. The rationale for this effect is that consumers in the enacting country face higher prices for the goods that are reoriented to the foreign market and at the same time have to pay for the provision of incentives through taxation; foreign consumers, on the other hand, reap the benefits of cheaper imports.

Following the presentation of [R2] at the 2014 World Bank's Annual Conference in Development Economics, Drs Riaño and Defever were invited to participate in a technical assistance project requested by the Ministry of the Economy of the Dominican Republic to the

World Bank's Trade and Competitiveness (T&C) practice. The World Bank extended this invitation on the basis that "*Dr Riaño is a world leader in his field of research and was considered the prime individual to undertake this work. [B]*"

The project's objective was to carry out a rigorous evaluation of the impact of reforms undertaken between 2007 and 2011 that eliminated the requirement for firms located in SEZ to export at least 80% of their output. This policy change made Dominican SEZ compliant with WTO rules that prohibit the provision of subsidies—like the various tax concessions offered in SEZ—to be contingent upon export performance. [R3] showed that the reform did not have a significant impact on Dominican exports but made SEZ more attractive locations for firms to be based. The reason is that removing the export requirement opened the door for firms in SEZ to sell their output domestically without any restrictions while maintaining the fiscal incentives available to firms based in the zones. Since the subsidies offered in SEZ amount to almost 1% of GDP in terms of foregone tax revenue, the results in [R3] show that the reform had a substantial impact in the public finances of the Dominican Republic. As the World Bank's country representative in the Dominican Republic notes in [B], "*…the work by Dr Riaño and co-authors shows that the efforts to make SEZ compliant with WTO rules did not go far enough in levelling the playing field between firms in SEZ and in the national customs territory and therefore did not contribute to reduce the extent of duality that had been identified in the Dominican export sector in the 2014 Diagnostic.*"

Following up from the work undertaken in the Dominican Republic, the World Bank's T&C practice commissioned a new project from Drs Riaño and Defever in February 2016 at the behest of the National Planning Commission (NPC) of Nepal, the government's apex policy advisory body, chaired by the Prime Minister. The objective of the project was to evaluate the impact of the Cash Incentive Scheme on Exports (CISE)—a cash subsidy granted to firms exporting a select group of 31 products to countries other than India (which accounts for 70% of Nepal's exports). Based on these eligibility requirements, approximately two-thirds of Nepalese exporters accounting for 40% of the country's total exports stand to benefit from the subsidy. The objective of CISE is to boost Nepalese exports, curb the country's chronic trade deficit and foster export diversification. [R5] shows that the CISE subsidy had a positive and significant impact on Nepalese exporters who received the subsidy inducing them to export new products and to reach new markets. The subsidy, however, did not produce a significant increase in the overall export sales per market of beneficiaries. The findings further showed that similar export promotion schemes offered by Bangladesh and India were more substantial. Thus, the research in [R5] indicates that there is scope for reforming CISE to increase the effectiveness to achieve its stated objectives.

3. References to the research

[1] **Defever, F.** and **A. Riaño** (2015) "Gone for Good? Subsidies with Export Share Requirements in China: 2002-2013." *World Bank Economic Review* 29: S125-S144.
DOI: https://doi.org/10.1093/wber/lhv020

[2] **Defever, F.** and **A. Riaño** (2017) "Subsidies with export share requirements in China," *Journal of Development Economics* 126: 33-51.
DOI: https://doi.org/10.1016/j.jdeveco.2016.12.003

[3] **Defever, F.**, J.-D. Reyes, **A. Riaño** and M. E. Sanchez (2019) "Special Economic Zones and WTO Compliance: Evidence from the Dominican Republic," *Economica* 86: 532-568.
DOI: https://doi.org/10.1111/ecca.12276

[4] J-D Reyes, M.E. Sanchez, M. Ferrantino, **A. Riaño**, **F. Defever,** J. Engel, G. Arenas,S. Ahdiyyih J. Mirabal (2016) "Special Economic Zones, Global Value Chains, and the Degree of Economic Linkages in the Dominican Republic", World Bank Trade and Competitiveness Global Practice Report. (Available on request)

[5] **Defever, F.**, J.-D. Reyes, **A. Riaño** and G. Varela (2020) "All These Worlds are Yours, Except India: The Effectiveness of Export Subsidies in Nepal," *European Economic Review* 128: 103494 (This research was conducted at the University of Nottingham and first published by the World Bank in 2017. *World Bank Policy Research Working Paper 8009*.) DOI: https://doi.org/10.1016/j.euroecorev.2020.103494

4. Details of the impact

The collaborative research led by Drs Riaño and Defever started at the University of Nottingham and has generated impact in two main ways:

Informing the evidence base used by the World Bank to improve the technical assistance and development financing that contribute to the Dominican Republic's sustainable development

Between 2015 and 2016, Dr Riaño and co-authors worked closely with the World Bank to inform them and key stakeholders of the findings in R3, which drew on the analytical and quantitative frameworks developed in R1 and R2. This included extensive discussions and presentations with different government entities such as the Ministry of Economy, the Ministry of Industry and the Central Bank of the Dominican Republic as well as the executive board of the National Council of Free Trade Zones. The research in [R3] and policy debate it produced was first used by the World Bank in its report [R4] on the role special economic zones (SEZ) should play to support a more inclusive economic growth model in the Dominican Republic. As attested by the World Bank *"The implications of the findings of Dr Riaño's report [R3] are widespread, with significant economic impact. They were incorporated into a World Bank report published in November 2016 about the role SEZ should play to support a more inclusive economy growth model."* [B]

World Bank Group staff in close consultation with national authorities and other stakeholders prepare Systematic Country Diagnostic reports, which incorporate a diagnostic exercise to identify key challenges and opportunities for a country to accelerate progress towards development objectives that are consistent with the goals of ending absolute poverty and boosting shared prosperity in a sustainable manner.

Following the 2016 report, the collaborative research [R3] and subsequently [R4] directly informed the Systematic Country Diagnostic for the Dominican Republic published in June 2018 [A], as corroborated by a World Bank representative. "*The Systematic Country Diagnostic prepared by the World Bank Group staff in close collaboration with the Dominican Authorities and other stakeholders published in June 2018 also incorporated the main results from the work undertook by Dr Riaño and co-authors" [B]*

The Systematic Country Diagnostic [A] states -- based on the findings in [R3] and [R4] and forcefully corroborated in supportive statement [B] -- that the generous tax incentives provided in SEZ have created an uneven playing field which has hampered the competitiveness of local firms, hindered the development of linkages between exporters and domestic firms and put a strain on public finances. Both a lack of inclusive growth among Dominican firms and the country's inability to generate enough tax revenues were flagged as key challenges for the Dominican Republic to become a high-income country by 2030.

The fact that the impact of tax incentives provided to SEZ was identified as having a direct effect on the growth and sustainability prospects of the Dominican Republic in the diagnostic will directly shape the World Bank's provision of technical assistance and lending operations, including Development Policy Financing (DPF). DPF is the main financing instrument offered by the World Bank, which accounted for USD7,100,000,000 of worldwide commitments in 2018. Its purpose is to help countries achieve sustainable development through a program of policy and institutional actions by providing non-earmarked general budget financing that is subject to the borrowing country's implementation process. In order for the Dominican Republic to gain access to DPF directed towards private sector development initiatives – particularly those oriented to strengthen linkages with global value chains – it needs to provide concrete evidence to the World Bank Group's board about its efforts to address the challenges raised in the diagnostic about its SEZ programme. Therefore, as [B] notes "*… the work led by Dr Riaño is considered critical in potentially guiding policy reforms*" in the Dominican Republic. This collaborative research [R1 – R4] has therefore not only benefited officials at the World Bank in informing their economic policy making with Government officials, but will also have a longer-term economic impact for businesses, employees and taxpayers in the Dominican Republic.

Reforming export subsidies in Nepal to increase their effectiveness in reducing the country's trade deficit and fostering export diversification

Since 2012, there has been a spirited debate between the government and business stakeholders about the extent of support needed by Nepalese exporters to successfully compete in world markets and the form that this support should take. In 2016, [R5] was commissioned by Nepal's National Planning Commission (NPC) to the Trade and Competitiveness practice at the World Bank as an input to evaluate the effectiveness and prospects of reform of the Cash Incentive Scheme on Exports (CISE) subsidy program – a pivotal instrument of export promotion in Nepal. The NPC is the Government's apex policy advisory body, chaired by the Prime Minister. Members and Vice-Chairs are ranked on par with Vice Ministers.

The government of Nepal concludes that CISE is fulfilling its objectives, based on the research findings that firms that received the subsidy began to export more products and to reach new foreign markets [R5]. The research [R5] also documents that both Bangladesh and India use export subsidies targeting specific products and destination markets, which are substantially more generous in terms of their subsidy rates than those provided by CISE. (Bangladesh offers ad-valorem subsidy rates as high as 30% on products like jute while India offers subsidies ranging from 2 to 5% to exports of more than 100 products.)

The former Vice-Chair for the National Planning Commission of Nepal, acknowledged the research findings [R5] and that the CISE subsidies had not been sufficiently high enough to encourage businesses to increase the scale of their exports. The Vice-Chair used the research [R5] to advocate for reforming the CISE subsidy program to increase its effectiveness as stated below: *"While I was in Government, I advocated sharpening the incentives offered by CISE based on the findings of the evaluation carried out by Dr Riaño and colleagues. The Ministry of Finance has since increased the subsidy rates offered by the CISE program to improve the program's effectiveness in raising exports and narrowing the trade deficit. [D]."*

The former Commerce Secretary of Nepal who oversaw the implementation of the CISE scheme, highlighted that the work conducted by Dr Riaño and co-authors [R5] *"has been a crucial point of reference providing inputs to this debate* (about the effectiveness of the CISE scheme)" and that *"The recommendations made by Dr. Riano and co-authors to increase the level of cash incentives to increase their competitiveness by offsetting the higher cost of production and transit transportation was quite notable [E] ".*

In addition, the limited impact of the subsidy on export sales identified in [R5] has been used by exporters to put pressure on the government to increase the level of cash incentives to make them competitive by offsetting the high costs of production and transportation they face in a landlocked country. The President of the Nepal Pashmina Industries Association, stated *"the incentive was very low compared to what neighbouring countries were giving to their traders.*[F]" The former Commerce Secretary noted that the research [R5] has *"helped to increase interaction and deliberations between industry and the government in order to boost competitiveness [E]".*

In response, the Finance Minister raised the subsidy rate offered by the CISE scheme from 1 and 2% to an increase of 5% in the 2018/19 budget speech of May 2018. Businesses have welcomed the new provision, which has identified 26 exportable items that are eligible to receive the new cash incentives. The government's spokesperson from the Ministry of Finance said the new provision is expected to check the country's widening trade deficit. "*It could also help the country earn more foreign currency at a time when the country is facing increasing pressure on its balance of payment due to excessive rise in import bills,"* adding that the Ministry has selected the goods based on their export statistics in the past few years. [G]

5. Sources to corroborate the impact

A. Dominican Republic: Systematic Country Diagnostic, World Bank, June 2018
B. Corroborative statement from the World Bank's Country Representative in the Dominican Republic
C. Budget Speech of Fiscal Year 2018/19 – Nepal
D. Corroborative statement from a former member of the National Planning Commission of the Government of Nepal
E. Corroborative statement from the former Commerce Secretary of Nepal
F. Combined items - The Himalayan Times and The Kathmandu Post Articles
G. The Kathmandu Post Article