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ABSTRACT

Exports and Jobs for Inclusive Growth in Cambodia*

Cambodia's rapid economic growth in the past few decades has coincided with trade liberalization and structural transformation. This growth has been extensively associated with more employment, higher wages, shared prosperity, and poverty reduction. By combining two complementary approaches, the Gravity model and the Bartik model, this paper estimates: (i) the relationship between trade agreements and trade flows, and (ii) the relationship between trade exposure and various local labor market outcomes. Our gravity estimates show that trade agreements between the Association of Southeast Asian Nations (ASEAN) are positively related with trade flows, and that Cambodia's specific gains from these increases in trade have been larger than for the average trade agreement. This has led to better results for workers in Cambodia's local labor markets. Our shift-share Bartik results suggest that increases in trade exposure in Cambodian districts between 2009 and 2019 correlate with reduced informality and an increase in hours worked, with more positive effects for female workers.

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1. Introduction

Academic literature has extensively documented the positive effects on welfare of trade openness around the world. Increases in exports have been largely associated with increases in gross domestic product (GDP) (Balassa,1978; Heitger, 1987; Lee, 1993; Dollar, 1992; Frankel and Romer 1999; Noguer and Siscart 2005). This, and the positive effects of trade in other macro dimensions such as reducing poverty and improving living standards (Harrison 1999) have led developing countries to adopt trade liberalization policies in recent decades. The pronounced boost in exports arising from these policies provoked large increases in labor demand (Robertson et al. 2009 and Lopez-Acevedo et al. 2016), which are somewhat associated with improving labor market outcomes such as wages, informality rates, and female labor force participation (FLFP) (Artuc et al. 2019, Robertson et al. 2020).

Although there is a consensus that trade and growth are positively related, the specific interactions between trade policy, trade flows, and labor market outcomes are not well understood. While in some cases these relationships are straight forward "text-book" positive (Robertson et al. 2020), some other recent studies (Bezerra de Goes et al. 2023 and Roche Rodriguez et al. 2023) have found mixed results in specific circumstances. Some of this is related to internal country factors (such as industrial policies) or external ones (such as export competition) that, when combined with trade policies fail to improve FLFP even if they tend to corelate with lower overall labor informality rates. Other studies (Robertson et al. 2022) have found no significant relationship between rising exports and local labor market outcomes, possibly due to weak comparative advantage in exported goods. The study of individual country cases is necessary to untangle the factors that do or do not lead to better labor outcomes when a country liberalizes its trade policies.

Some background on trade and labor market structure in Brazil

This papery explores the trade-labor market relationship by implementing two complementary approaches. The first approach is addresses the question: What is the relationship between exports and local labor markets? This is through a shift-share "Bartik" (1991) method and then to analyze the impact on greener sectors.

The following sections review Brazil's economic integration into global markets, shedding light on the relationship between trade policies and trade flows, and the relationship between trade flows and labor market outcomes. Section 2 of this paper provides a snapshot of Cambodia's main trade and labor market patterns. Section 3 presents the data. Section 4 provides a summary of the lit review. presents the gravity model and the estimates of how trade policies have affected trade flows in Cambodia. In section 4, we present the shift-share Bartik analysis on how increasing exports relate to local labor market outcomes. Finally, section 5 concludes by providing the main insights derived from this study.

2. Trade and Labor Market Trends

Tariff reduction is part of Cambodia's commitment to expanding trade. Between 2001 and 2021, the average tariff reduced from 16 percent to 6 percent (Figure 2.1). These changes

have increased the country's trade volume drastically, with the real value of both exports and imports grown by 900 percent since the early 2000s (Figure 2.2).

Figure 2.1. Tariff rates have dropped sharply, especially in manufactured products.

Cambodian tariff rate of all products in percentage, 2000-2020

Source: Authors' elaboration using data from Our World in Data (https://ourworldindata.org/)
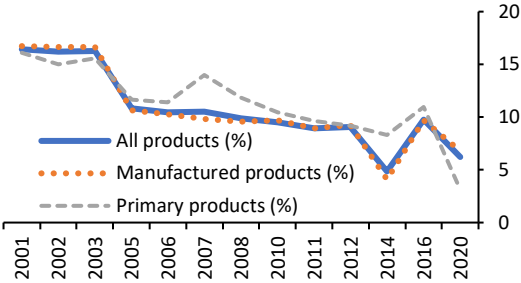
Figure 2.2. Trade flows have increased sharply.

Exports and imports of goods and services, constant millions 2015 US$

Source: Authors' elaboration using data from Our World in Data (https://ourworldindata.org/)
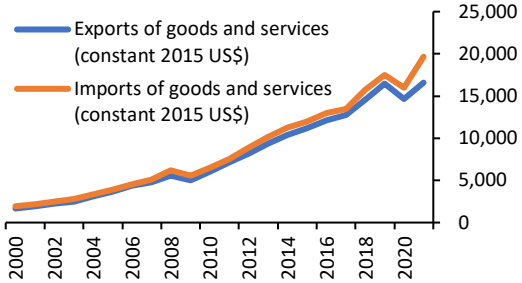
As Figure 2.3 shows, export growth has primarily been driven by an increase in trade volume rather than a price effect. Notably, while exports have grown more than imports in volume, imports are relatively more expensive than Cambodia's export basket, resulting in a negative current account balance (Figure 2.5). Despite the rise in trade value, Cambodia's share of exports and imports as a percentage of GDP remained relatively constant in the second half of the 2000s.

Figure 2.3. Exports are driven by increases in volume rather than price.
Unit and volume index, 2000-2021
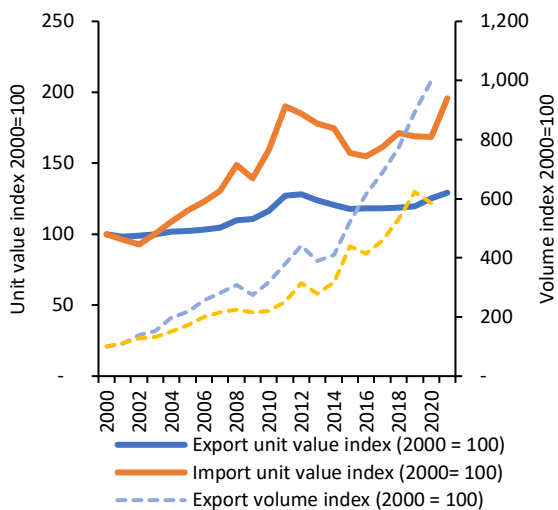
Source: Authors' elaboration using data from the World Development Indicators.

Figure 2.4. Trade flows remain relatively moderate in the second half of the 2000s.
Imports & exports, % of GDP, 2000-2020
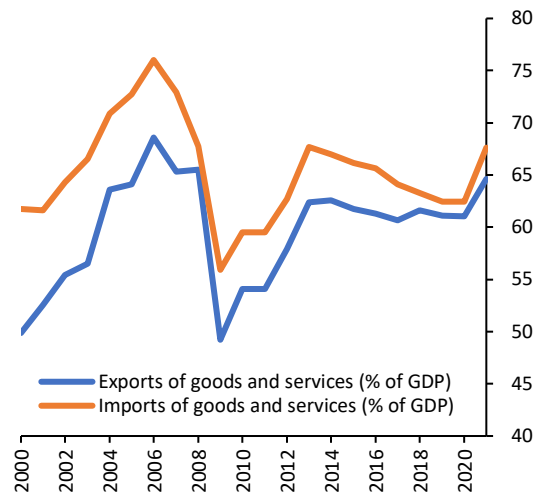
Source: Authors' elaboration using data from the World Development Indicators.

Figure 2.5: More expensive imports are driving a negative trade balance.
Trade balance on goods and services (% of GDP), 2000-2021

Source: Authors' elaboration using data from the World Development Indicators.

Trade liberalization coincided with some export diversification, with new products reshaping Cambodia's export basket. Today, moderate and low-complexity products— including apparel, footwear, leather goods, precious metals and stones, and tourism—constitute most of Cambodia's exports (Figure 2.6). Up to 2008, apparel represented more than half of

Cambodian exports, and even though its export value has continued to grow in the last 20 years—from about US$ 1 billion in 2000 to US$ 8 billion in 2020—its export share has decreased over time due to increasing participation of other products. Thus, while garments remain Cambodia's main export product, their share has decreased 20 percentage points from about 60 percent to 40 percent between 2000 and 2020.

Growth in the mining sector represents the other side of this coin. The discovery of new mines in recent years stimulated exports of precious metals and stones. Since issuing its first industrial mining license in 2016, Cambodia has significantly increased its export share of precious metals from 0.4 percent in 2000 to 14.2 percent in 2020. Moreover, during the Covid-19 years, the sector reported growth, unlike other industries. Between 2000 and 2020, mining activities grew from US$ 7 million in exports to US$ 3 billion.

Figure 2.6: Despite diversification, exports concentrate in low-complexity products.
Cambodia's Exports in Value (% of total) and export value, 2000 and 2020
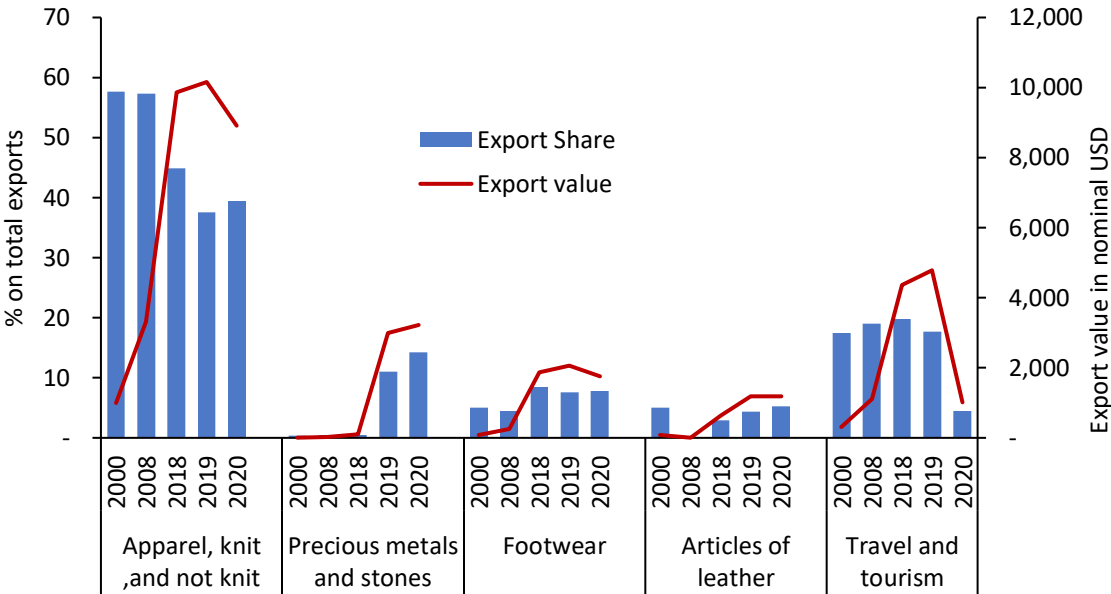
Source: Author's elaboration based on data from the Atlas of economic complexity.

Cambodia primarily imports intermediate goods used as inputs for domestic production. In 2020, intermediate goods accounted for 48.6 percent of Cambodia's total imports while consumer goods accounted for 30.8 percent (Figure 2.7). Top products imported include inputs for the garment industry (8.1%), petroleum oils (6.5%), industrial machinery (6.22%), electrical equipment (5.9%), and vehicles (5.6%). These imports support a range of domestic production activities, including garment manufacturing, construction, and transportation. Overall, Cambodia's reliance on intermediate goods imports suggests a lack of domestic capacity, resulting in a comparative advantage to produce certain goods and importing intermediate inputs rather than producing them domestically.

Figure 2.7: Imports' composition is dominated by intermediate goods.
Cambodia's Imports in Value (% of total), 2000 and 2020
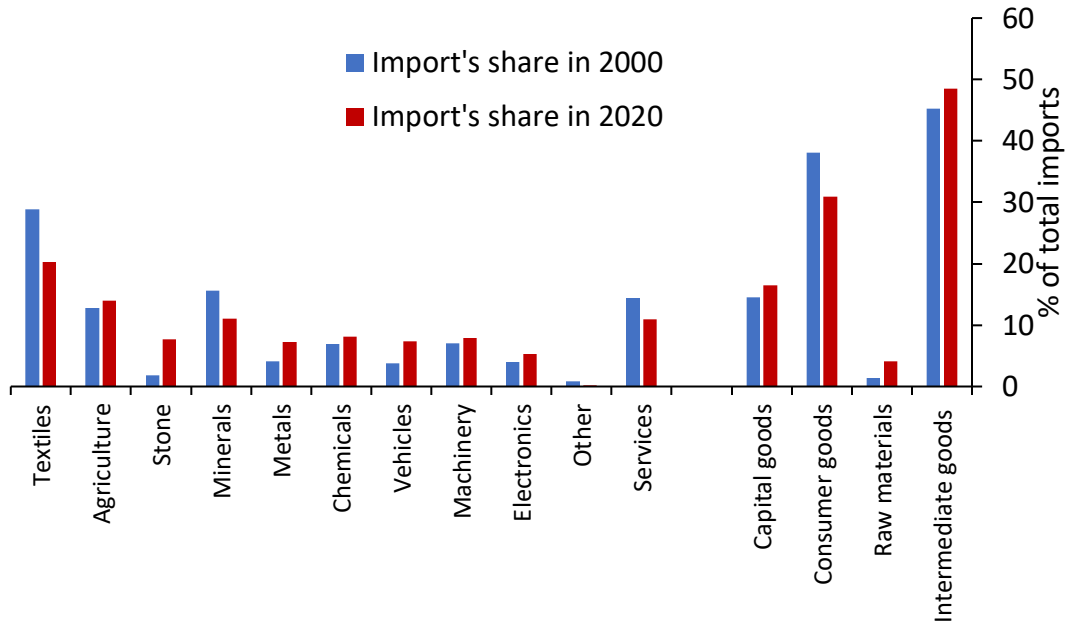
Source: Author's elaboration based on data from the Atlas of economic complexity and WITS.

Labor Market Trends

Cambodia's labor market has undergone significant structural changes over the past decade. Data from the household Cambodia Socio-Economic Survey (CSES) shows that the proportion of workers in agriculture declined from 58 percent in 2009 to 37 percent in 2019, accompanied by increases in services and industry employment. Construction, apparel manufacturing, financial, insurance, and real estate services were the fastest growing. For example, the employment share in apparel doubled from 5 percent in 2009 to 10 percent in 2019. Despite significant improvements in labor market outcomes, challenges in terms of gender-segmented labor markets and wage gaps still remain unresolved.

In conjunction with sustained growth in total trade since 2000, the broad range of labor market indicators reflects the general health of Cambodia's labor markets. Between 2009 and 2019, Cambodia sustained high and stable labor force participation and employment, averaging about 84 percent (Figure 2.8). While rural labor participation rates remained largely unchanged, the urban rates increased approximately 8 percentage points from 73.4 percent in 2009 to 81.7 percent in 2019 (Figure 2.9).

Figure 2.8. Labor force participation has remained high and stable.
Labor Force Participation Rate (Percent of population aged 15-64), 2009–2020, Women, Men and Total.
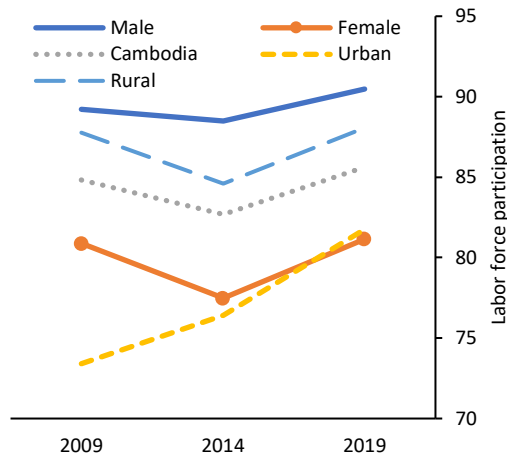
Figure 2.9. Non-farm employment has pushed participation in urban areas.
Labor Force Participation Rate (Percent of population aged 15-64 Urban vs Rural by Gender), 2009–2020

Source: Authors' elaboration using the CSES household survey.
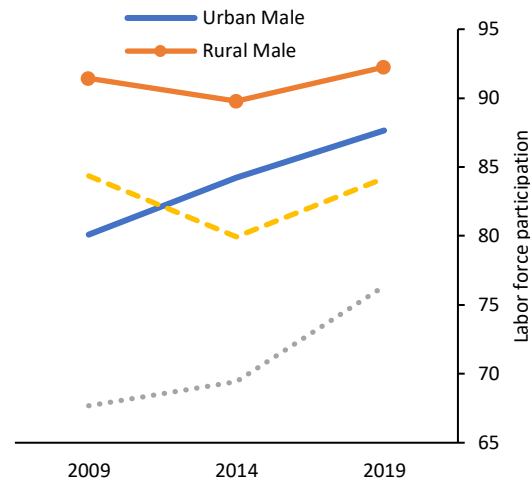
Source: Authors' elaboration using the CSES household survey.

The massive structural transformation Cambodia experienced between 2009-2019 explains the urban-rural labor dynamics (Karamba et al., 2022). During these years, the agricultural sector lost approximately 1,100,000 million jobs, which is the main employment sector in rural areas. At the same time, more than 2 million jobs were created in industries such as sales, apparel, construction, and other services that are more prominent in urban areas.

FLFP, among the highest in the region, remained stable between 2009 and 2019, a result of Cambodia's organized structural transformation. While rural FLFP remained stable, urban areas attracted female workers to the labor force.

Cambodia has also achieved high employment. In cities, employment increased by 9 percentage points between 2009 and 2020 from 72.6 percent to 81.5 percent with employment for men and women showing relatively similar increases of 8 percentage points for men and 9 percentage points for women (Figure 2.10). Throughout the decade, unemployment stood at very low levels; the combination of high labor force participation and low unemployment also points to a relatively healthy labor market with very few discouraged and disengaged workers (Figure 2.11).

Figure 2.10. Employment increased driven by urban areas.
Employment rate (Percent of LFP), 2009–2019
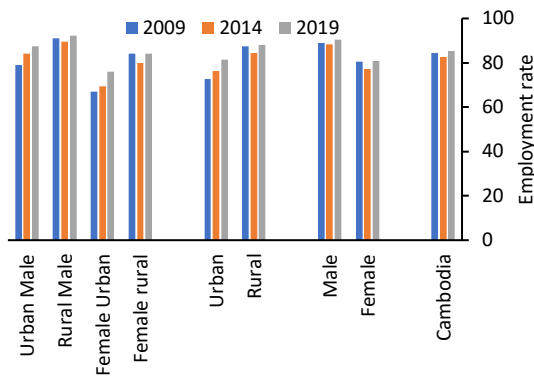
Source: Authors' elaboration using data the CSES household survey.

Figure 2.11. The unemployment rate halved since 2009.
Unemployment rate (Percent of LFP), 2009–2029
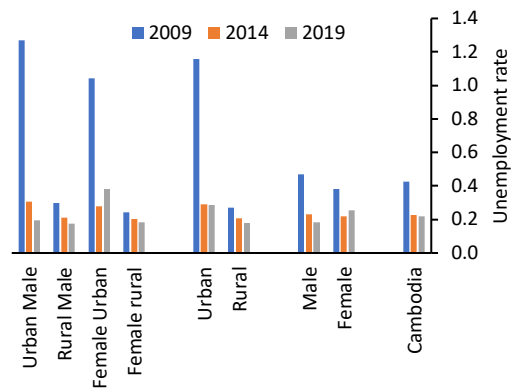
Source: Authors' elaboration using data the CSES household survey.

Structural transformation and economic growth have translated into wage gains. Over the past decade, real wages for employees in Cambodia nearly tripled (Figure 2.13). These wage increases have been greater for women than for men, contributing to a reduction in the gender pay gap. Over the last ten years, the wage gender gap decreased by 10 percentage points from 27 percent in 2009 to 18 percent in 2019 (Figure 2.12).

Between 2009 and 2014, the gender wage gap narrowed by 6 percentage points, primarily driven by substantial wage growth in sectors where women had relatively higher employment rates, such as mining and apparel. In the second period from 2014 to 2019, reduction in the wage gap slowed, decreasing by only 3 percentage points, mainly due to slowing wage growth in sectors where women were relatively more employed (Savchenko et al, 2016).

Figure 2.12. The gender wage gap has decreased 10 percentage points since 2009.

Average employees real wages, 2009-2019
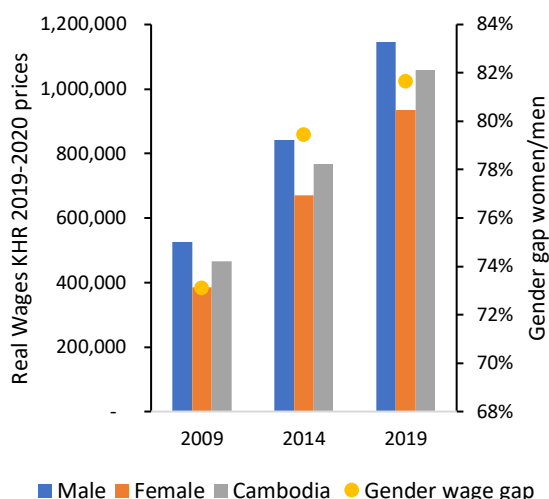
Source: Authors' elaboration using data the CSES household survey.

Figure 2.13. Agricultural and non-agricultural wages almost tripled between 2009-2019.

Average real wages, 2009-2019
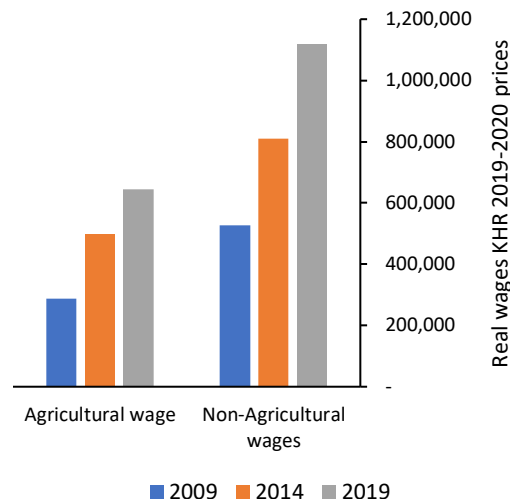
Source: Authors' elaboration using data the CSES household survey.

Gender segmentation across sectors persists. Women remain employed in agricultural activities more than men. In 2019, men were more likely than women to work in construction (14.8% versus 1.3%), trade (10.7% versus 1.2%) and transportation (8.5% versus 1.0%). Men also show greater participation in public administration (5.2% versus 0.5%) and financial, insurance, and real estate services (1.5% versus 0.5%). Interestingly, the most important export-oriented sectors, apparel and mining, are female-intensive. These export-oriented sectors created opportunities for women to work outside the agricultural sector, improve their earnings, and reduce the wage gap (Robertson et al, 2009). Women have a higher probability of being employed in mining (18.3% versus 0.56%), food and beverage (17.7% versus 1.5%), and textile and apparel (12.3% versus 4.0%) relative to men (Figure 2.14).

Figure 2.14: Despite structural transformation women's employment remains concentrated while men diversify

Share in selected industries %, 2009-2019

a) All workers

	Agriculture and forestry	Mining	Food, beverage and tobacco
■	Textile and apparel	Wood	Construction
■	Sales	Transport	Public administration
■	Others		

b) Men

	Agriculture and forestry	Mining	Food, beverage and tobacco
■	Textile and apparel	Wood	Construction
■	Sales	Transport	Public administration
■	Others		
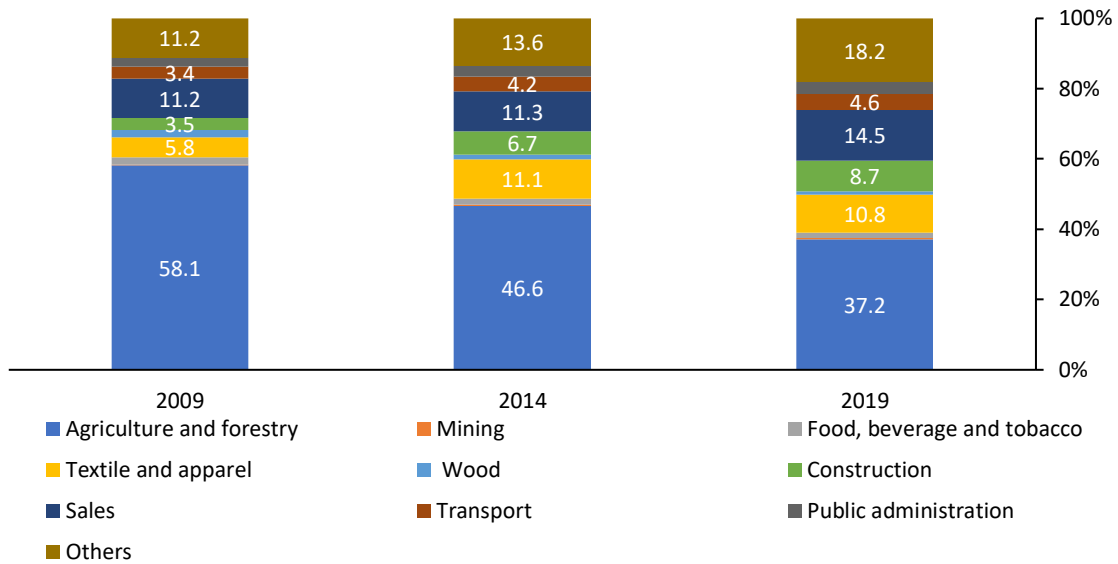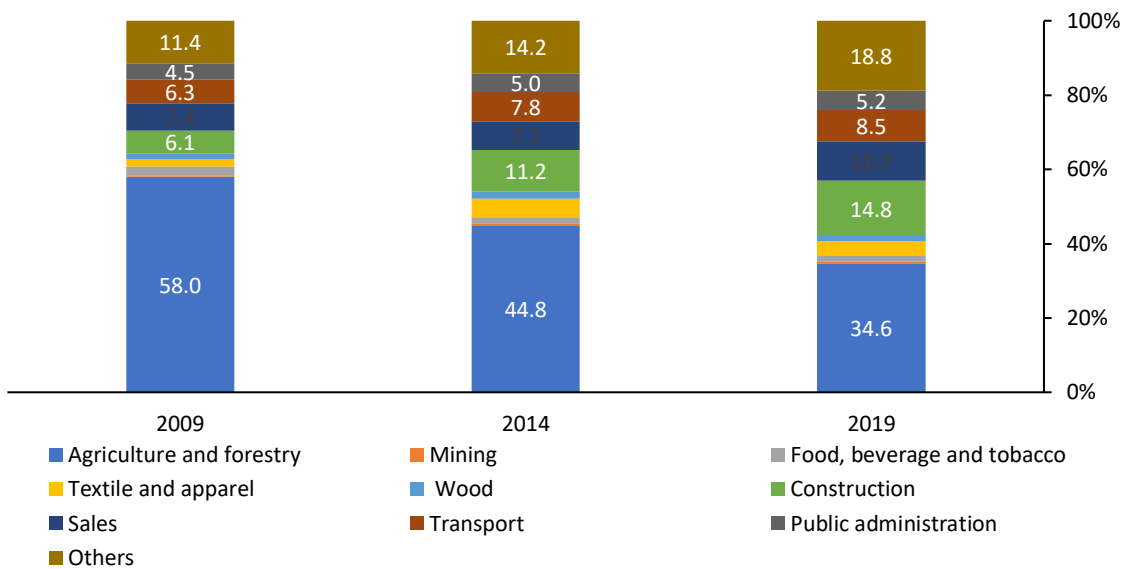
c) Women
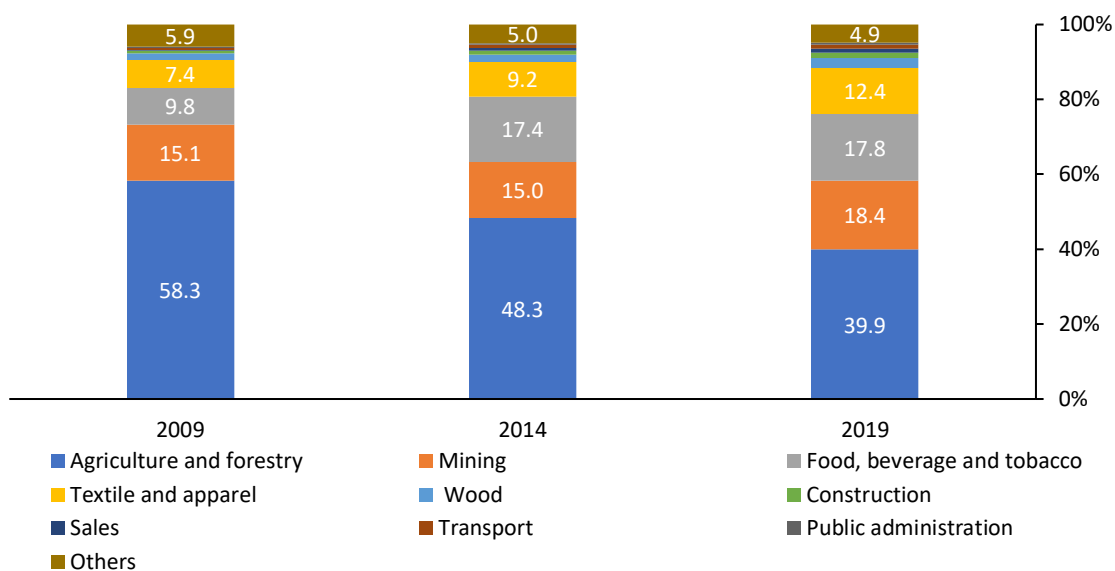
Source: Authors' elaboration using data the CSES household survey.

3. Trade policies and trade flows

Cambodia's dedication to trade liberalization is apparent through the implementation of a series of trade-related policies. Besides the measures noted, in 1996, the U.S. granted Cambodia most favored nation (MFN) status, followed by the Generalized System of Preferences (GSP) in 1997, and the European Union's Everything-but-Arms (EBA) agreement in 2001. It is also a signatory of the 2006 Trade and Investment Framework Agreement (TIFA) with the U.S. These agreements facilitated intra-regional and international exchange of garment manufacturing and the entry of new investors from Southeast Asia into Cambodia.

Other measures further promoted private sector development, including the 1994 law on investment, which allowed 100% foreign-owned investment and provided guarantees against nationalization and price regulation. To facilitate foreign investment, the country created the Council for the Development of Cambodia (CDC), which functioned as a one-stop for investors. In recent years, Cambodia has also introduced significant cross-border trade facilitation improvements, resulting in faster export and import procedures. Compared to other Southeast Asian countries, Cambodia is known for having the least trade restrictions in services.

Trade plays a critical role in Cambodia's economy. Since Cambodia's economic and political transition of the 1990s, it has fostered an export-led economy. Since 2000, gross domestic product (GDP) and GDP per capita increased significantly. In fact, several estimates have projected that Cambodia will transition out of Least Developed Country (LDC) status as early as 2027. Table 3.1 summarizes Cambodia's trade agreements (RTAs) as reported to the World Trade Organization (WTO).

Table 3.1. Cambodia's RTAs.

Agreement Name	Coverage	Dates	Description
ASEAN – Australia – New Zealand	Goods & services	Signature 27-Feb-2009 Entry into force 01-Jan-2010	The Agreement establishes a free trade area between ASEAN, Australia and New Zealand. The objectives of the Agreement, as provided in Article 1 of Chapter 1 are to (a) progressively liberalize and facilitate trade in goods among the Parties, (b) progressively liberalize trade in services among the Parties, (c) facilitate, promote and enhance investment opportunities among the Parties, (d) to establish a co-operative framework for strengthening, diversifying and enhancing trade, investment and economic links among the Parties, and (e) to provide special and differential treatment to ASEAN Member States, especially to the newer ASEAN Member States, to facilitate their more effective economic integration.
ASEAN – China	Goods & services	Signature 29-Nov-2004 (Goods) 14-Jan-2007 (Services) Entry into force 01-Jan-2005 (Goods) 01-Jul-2007 (Services)	The leaders of both China and ASEAN Member (AMS) signed the Framework Agreement on China-ASEAN Comprehensive Economic Cooperation at the sixth China-ASEAN Summit in November 2002. In November 2004, Chinese Premier Wen Jiabao and leaders of AMS witnessed the signing of the Agreement on Trade in Goods of the China-ASEAN FTA which entered into force in July 2005. In January 2007, the two parties signed the Agreement on Trade in Services, which entered into effect in July of the same year. In August 2009, the two parties signed the Agreement on Investment. The establishment of China-ASEAN free trade area enhances the close economic and trade relations between the two parties, and also contributes to the

			economic development of Asia and the world at large.
ASEAN – India	Goods & services	Signature 13-Aug-2009 (Goods) 13-Nov-2014 (Services) Entry into force 01-Jan-2010 (Goods) 01-Jul-2015 (Services)	The Agreement applies to trade in goods and all other matters relating thereto as envisaged in the Framework Agreement (as indicated above). According to the Preamble, the Parties commit to establish the ASEAN-India Free Trade Area covering trade in goods by 2013 for Brunei Darussalam, Indonesia, Malaysia, Singapore, Thailand, and India; by 2018 for the Philippines and India; and by 2018 for Cambodia, Lao PDR, Myanmar and Viet Nam. The Agreement is composed of four Parts and 34 Articles. It also contains an Annex on movement of natural persons. Each Party's Schedules of specific commitments are attached to and form an integral part of the Agreement. Moreover, the GATS Annexes (on the movement of natural persons supplying services, air transport services, financial services, and telecommunications) shall apply to the Agreement, mutatis mutandis (Article 28).
ASEAN – Japan	Goods & services	Signature 26-Mar-2008 (Goods) 27-Feb-2019 (Services) Entry into force 01-Dec-2008 (Goods) 01-Aug-2020 (Services)	Chapters, 1, 8, 9 and 10 contain general provisions, Chapters 2 (trade in goods), 3 (rules on origin), 4 (sanitary and phytosanitary measures), and 5 (standards, technical regulations and conformity assessment procedures) refer specifically to trade in goods. The Parties agree to provide each other's goods national treatment, and, to this end, the provisions of Article III of GATT 1994 are, mutatis mutandis, incorporated into and form an integral part of the Agreement (Article 15).

| ASEAN – Korea, Republic of | Goods & services | Signature

24-Aug-2006 (Goods)
21-Nov-2008 (Services)

Entry into force

01-Jan-2010 (Goods)
01-May-2009 (Services) | The Agreement contains 21 Articles and three annexes which form an integral part of the Agreement (Box 2.1). In addition, the Agreement on Dispute Settlement, which was signed on 13 December 2005, provides a dispute settlement mechanism under the Agreement. The Agreement was also amended three times: on 30 November 2010, 17 November 2011 and 23 August 2015. The first Protocol to amend the Agreement concerned tariff lines exempted from the Agreement by Lao PDR as part of its highly sensitive list; the second Protocol agreed procedures to accelerate tariff commitments and amended Article 17 of the Agreement; and the third Protocol mainly amended Article 4 of the Agreement and added new provisions on trade facilitation. |
| ASEAN Free Trade Area (AFTA) | Goods & services | Signature26-Feb-2009 (Goods)
15-Dec-1995 (Services)

Entry into force

17-May-2010 (Goods)
12-Aug-1998 (Services) | In pursuing the goal of establishing a single market and production base with free flow of goods by 2015 for the ASEAN Economic Community, a more integrated and holistic approach would be required. This calls for the integration and inclusion of existing and additional measures relevant to the trade in goods initiative under one umbrella. To achieve this, the ASEAN Economic Ministers agreed in August 2007 to enhance the Common Effective Preferential Tariff for ASEAN Free Trade Agreement (CEPT-AFTA) into a more comprehensive legal instrument. |

Source: World Trade Organization. Further information around provisions and characteristics can be consulted on:
https://www.wto.org/english/thewto_e/countries_e/cambodia_e.htm#rtaPtaHead.

Do trade agreements increase trade?

Since trade increases growth, policy makers want to know how to increase trade and the level of effectiveness of different policies such as trade agreements. Therefore, this study seeks to answer how much the bilateral and multilateral trade agreements Cambodia entered into in the last two decades have affected trade flows. To estimate the effect of trade agreements on trade, this study employs the gravity model of international trade to estimate the contribution of various factors to bilateral trade flows. The model considers elements such as economic size, geographical distance between trading partners, and trade costs (transportation costs, logistics, port delays, communication difficulties) and policies such as bilateral, multilateral, and regional trade agreements.

Tinbergen (1962) first proposed the gravity model to illustrate the asymmetry of global trade flows. The term "gravity" borrows from physics, which established that the observed effect of gravity seems to be stronger for larger objects and those that are closer together. The analogy to trade comes from the fact that countries with larger gross domestic products (GDP) tend to trade more, and countries farther apart from each other trade less. Therefore, we model trade flows between every country pair in every year as a function of each country's size (GDP), the distance between them, and agreements.

The model estimated is as follows:

$$y_{i,j,t} = \beta^k_{RTA} RTA_{i,j,k,t} + \beta^l_{RTA} RTA_{i,j,l,t} + \mu_{i,j} + \tau_{i,t} + \delta_{j,t} + \epsilon_{i,j,t}$$

where:

$y_{i,j,t}$ = Pairwise value of goods and services traded between country i and country j at time t. This usually measured as imports into country i from country j. As a result, there are two observations for each country pair: j can also import from country i.
$RTA_{i,j,k,t}$ = Specific regional trade agreement k.
β^k_{RTA} = agreement-specific effect on total trade
$RTA_{i,j,l,t}$ = All other regional trade agreements l between country i and country j at time t.
β^l_{RTA} = average effect of all other RTAs l excluding agreement k.
$\mu_{i,j}$ = a country-pair fixed effect that controls for all constant characteristics of the country pair (e.g. distance)
$\tau_{i,j}$ = an importer time trend, controlling for anything changing over time specific to the importing country
$\delta_{i,j}$ = an exporter time trend, controlling for anything changing over time specific to the exporting country
$\epsilon_{i,j,t}$ = is the residual error term.

We estimate this equation separately for each trade agreement. That is, each agreement takes a turn at being the "specific" agreement and then returns into the group of the rest of the agreements to generate the "average" effect. Most gravity models only estimate the "average" effect, which does not allow assessment of the relationship between individual agreements

and trade flows. Our approach here allows us to isolate Cambodia's agreements specifically and estimate, through the "specific" component, the relationship between Cambodia's trade agreements and trade flows, and then compare them to the "average" effect across all other agreements.

We estimate each gravity equation using the Poisson Pseudo Maximum Likelihood with High-Dimensional Fixed Effects (PPML HDFE) methodology (Correa, Guimarães, and Zylkin, 2020) that produces results robust to statistical separation and convergence issues and are corrected for potential biases arising from country-specific time trends and other parameters included in the model. More specifically, we measure trade at the country-pair level, so that the overall effect of GDP growth on trade is absorbed by the country-specific time trend variables included in the estimation. We also include country-pair fixed effects to—at least partially, if not mostly—control for cultural ties and political relationships.

Data

Since the country-pair fixed effects and both importer and exporter time trends absorb the variation of the "usual" gravity variables (distance, gross domestic product, and other country-pair characteristics like common language, common border, and so on), our data consist of bilateral trade flows and trade agreement indicators from the Centre for Prospective Studies and International Information (CEPII) database (Abreha and Robertson 2023). The dataset includes over one million observations that cover 232 exporters, 179 importers, 262 Regional Trade Agreements (RTAs) over the 1990–2016 period.

Results

Table 3.2 contains the gravity results. Again, the data cover all pair-wise trade flows for each year from 1996 to 2015. The impact compares the change in trade following the implementation of the agreement relative to countries without agreements (assuming that the trade agreements constitute an absorbing state in the sense that do not end before end of the sample period). Each row represents a specific trade agreement. The β^k coefficients represent the estimated relationship between the agreement listed in the first column. The β^l coefficients represent the average result of all other agreements excluding the specific agreement listed in the first column. The second pair of columns contain the same estimates, but correct for the incidental parameter bias resulting from having a large number of included controls. These corrections are potentially important because each estimation includes a fixed effect for each country pair and time trend terms for each importer and each exporter.

Table 3.2 ASEAN and Total Trade Flows

Trade Agreement	Coefficients		Bias corrected[1/]	
	β^k	β^l	β^k	β^l
ASEAN - Australia - New Zealand	0.293	0.150	0.260	0.144
	(0.084)	(0.053)	(0.124)	(0.058)
ASEAN - China	0.630	0.130	0.572	0.127
	(0.053)	(0.054)	(0.108)	(0.058)
ASEAN - India	0.370	0.149	0.320	0.143
	(0.113)	(0.053)	(0.137)	(0.058)
ASEAN - Japan	0.190	0.148	0.186	0.142
	(0.081)	(0.054)	(0.109)	(0.059)
ASEAN - Korea, Republic of	0.178	0.150	0.167	0.144
	(0.087)	(0.053)	(0.102)	(0.058)
ASEAN Free Trade Area (AFTA)	0.498	0.143	0.523	0.136
	(0.095)	(0.053)	(0.155)	(0.058)
1/ This estimator from Correia, Guimaraes and Zylkin (2019) adds robustness by correcting the potential biases arising from country specific time trends and other parameters in the model. Note: Standard errors in parenthesis.				

In all cases, the specific trade agreement estimate (β^k) is larger than the estimated average across all other trade agreements. The lower estimate for the average across other agreements suggests that some agreements are not associated with larger increases in trade, but ASEAN agreements are not examples of small effects. On the contrary, the fact that the ASEAN estimates (β^k) are larger suggests that ASEAN agreements generate larger increases in trade than other agreements. Note that all β^l coefficients lie between 10 and 20 percent, which is consistent with the literature. Notably, the ASEAN-China trade agreement has had the greatest effect, with an increase of around 60 percent in trade after signature (both in biased and unbiased models). The ASEAN-Korea agreement yielded the lowest effect (although larger than the average trade agreement). This may be due to the fact that the Chinese market is larger, but since the estimation includes a China-specific time trend, the larger estimate for the Chinese agreement may be due to other factors.

Trade agreements can affect different products differently. To explore this possibility, Table 3.3 presents the gravity model results that emerge when the same equation is estimated for data restricted to just apparel trade. Apparel is an important export for some countries but not others. In addition, different agreements treat apparel differently, especially through different rules of origin that define what kind of transformation must take place within the signatory countries to qualify for agreement preferences (Abreha and Robertson, 2023). The results in apparel sector differ from those derived from total trade only for the case of the ASEAN-India agreement. Results show that this agreement has produced a smaller increase in apparel trade than the change observed in other agreements. One likely reason for this is that the negotiated rules of origin in the India agreement are more restrictive. The rest of β^k coefficients are positive and considerably larger than the average in both biased and unbiased models.

Table 3.3. ASEAN and Apparel Trade

Trade Agreement	Coefficients		Bias corrected[1]	
	β^k	β^l	β^k	β^l
ASEAN - Australia - New Zealand	0.350	0.065	0.378	0.068
	(0.16)	(0.138)	(0.196)	(0.141)
ASEAN - China	0.694	0.060	0.513	0.065
	(0.146)	(0.138)	(0.314)	(0.142)
ASEAN - India	-0.207	0.067	-0.169	0.069
	(0.148)	(0.137)	(0.235)	(0.141)
ASEAN - Japan	0.655	0.046	0.712	0.042
	(0.244)	(0.141)	(0.349)	(0.144)
ASEAN - Korea, Republic of	0.566	0.059	0.547	0.063
	(0.254)	(0.138)	(0.484)	(0.14)
ASEAN Free Trade Area (AFTA)	0.564	0.063	-	-
	(0.145)	(0.138)	-	-
1/ This estimator from Correia, Guimaraes and Zylkin (2019) adds robustness by correcting the potential biases arising from country specific time trends and other parameters in the model. Cells in blank were not able to be computed by the model				
Note: Standard errors in parenthesis.				

To test the robustness of the estimation, the results for another labor intensive sector are considered and compared with the results for the apparel sector. Table 3.4, therefore, shows the coefficients for the model considering trade in the furniture sector. For the agreements with Australia-New Zealand and Japan, the estimates for trade in apparel are bigger than those for the furniture sector.

Table 3.4. ASEAN and Trade in Furniture

Trade Agreement	Coefficients		Bias corrected[1]	
	β^k	β^l	β^k	β^l
ASEAN - Australia - New Zealand	0.192	0.099	0.177	0.380
	(0.25)	(0.208)	(0.133)	(0.124)
ASEAN - China	0.743	0.518	0.184	0.364
	(0.239)	(0.2)	(0.134)	(0.126)
ASEAN - India	0.551	0.379	0.204	0.364
	(0.249)	(0.206)	(0.132)	(0.125)
ASEAN - Japan	-0.015	-0.045	0.179	0.312
	(0.261)	(0.22)	(0.135)	(0.128)
ASEAN - Korea, Republic of	0.197	0.147	0.131	0.177
	(0.249)	(0.206)	(0.133)	(0.126)
ASEAN Free Trade Area (AFTA)	0.646	0.742	0.145	0.311
	(0.245)	(0.2)	(0.133)	(0.127)
1/ This estimator from Correia, Guimaraes and Zylkin (2019) adds robustness by correcting the potential biases arising from country specific time trends and other parameters in the model.				
Note: Standard errors in parenthesis.				

The previous gravity results summarize the estimated relationship between each individual trade agreement reported to the WTO and subsequent trade flows between each country pair. One concern is that all of Cambodia's trade agreements prior to 2022 were through ASEAN. As a result, the estimated effects of the trade agreement apply to all of the ASEAN countries that signed the agreement.

To get a sense of how Cambodia's experience differed from those of other ASEAN members, Table 3.5 shows the results of HDFE PPML gravity estimation that interacts Cambodia as an exporter with the estimated effect of the trade agreement. The table has two columns. The second column presents the estimates with the Cambodian interaction term. The results are estimated using the full sample (including zero values for pair-wise trade for those countries that do not trade). The main results suggest that Cambodia gets more of a "boost" from trade agreements than other countries, but this is only marginally statistically significant (at the 10% level). That is, Cambodia's exports increase relatively more than exports from other countries with similar agreements. Overall, therefore, Cambodia's trade agreements have played an important role in increasing exports.

Table 3.5: Cambodia RTA Estimates

VARIABLES	Baseline RTA	Cambodia's RTA
RTA	0.581***	0.581***
	(0.098)	(0.099)
Cambodia		1.127*
		(0.647)
Constant	16.027***	16.027***
	(0.045)	(0.045)
n	1,231,334	1,231,334
Notes: PPML HDFE estimation using annual pair-wise COMTRADE/Baci data spanning 1996-2021. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.		

In addition to these agreements, several other trade programs are relevant for Cambodia. The three most notable are the Everything But Arms (EBA) program of the United States, the 2006 Trade and Investment Framework (TIF) between the United States and Cambodia, and trade with China. We explore each of these in turn here. The European Union (EU) introduced the "Everything but Arms" preference program for the Least Developed Countries (LDCs) on March 5, 2001. Cambodia's preferences were reduced due to human rights concerns in 2020, which followed the re-imposition of EU tariffs on Cambodian rice (along with rice imported from Myanmar) in 2019.

In 2023, there were 46 LDCs. Table 3.6 shows the results of the Everything But Arms (EBA) program across all participants controlling for the effect of RTAs generally. The results

suggest that the EBA program was associated with more exports, holding other High-Dimensional Fixed Effects (HDFEs) and RTAs constant. These estimates are slightly less than those for RTAs generally. In addition, the effects on Cambodian exports were especially acute. The interaction estimates in the second column suggest that the EBA program was associated with smaller increases in exports from Cambodia than from other countries.

Table 3.6: Cambodia EBA Estimates

VARIABLES	Zeros	Zeros
RTA	0.581***	0.581***
	(0.099)	(0.099)
EBA	1.103***	1.110***
	(0.090)	(0.091)
Cambodia EBA		-0.323*
		(0.181)
Constant	16.016***	16.016***
	(0.045)	(0.045)
Observations	1,231,334	1,231,334
Notes: PPML HDFE estimation using annual pair-wise COMTRADE/Baci data spanning 1996-2021. Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.		

One reason why the EBA program is associated with such large increases in exports from LDCs is that they explicitly reduce tariffs and quotas for LDC exports. Other agreements are more aspirational, such as the Trade and Investment Facilitation (TIF). The text of the TIF contains no reduction in any tariff or non-tariff barriers. The agreement is purely a framework for continued discussion and collaboration on trade issues. The agreement has no provisions that would reduce trade costs, and, therefore, no enforcement provisions. In other words, there is nothing in the TIF that should actually affect trade flows. Nevertheless, we estimate the relationship between the TIF and bilateral trade flows, controlling for other agreements and HDFE (see Table 3.7). Cambodia's exports increase significantly after the agreement went into effect.

Table 3.7: Cambodia TIF Estimates

VARIABLES	Zeros	Non Zeros
RTA	0.581***	0.024
	(0.099)	(0.042)
TIF	0.623***	0.199**
	(0.099)	(0.077)
Constant	16.027***	16.397***
	(0.045)	(0.019)
Observations	1,231,334	762,476

Note that one must be careful with the interpretation of estimates from Table 3.7 for three reasons. First, the Multifiber Arrangement (MFA) ended in 2004, and Cambodia was one of the countries that received increased global investment and increased apparel exports when the MFA ended (Beresford 2009 and Savchenko et al. 2012). Second, the dependent variable is for Cambodia's total exports in terms of products and countries (i.e., exports to the world). Finally, these results are unlikely to be causal because there are no provisions in the TIF that reduce trade costs.

The third dimension of Cambodia's trade that might be relevant is the relationship with China. In terms of trade agreements, the relationship between Cambodia and China through ASEAN is already captured in the previous estimation. In addition, exports to China [from Cambodia] remain a relatively small share of Cambodia's total exports. Figure 3.1 shows the share of total exports from Cambodia, measured as imports from Cambodia by all other countries by year in the CEPII gravity database. It shows that, even when including Hong Kong with China, Cambodian exports to China (and Hong Kong) are very small relative to those to the USA, Europe, and the rest of the world.

Figure 3.1: Share of total exports from Cambodia
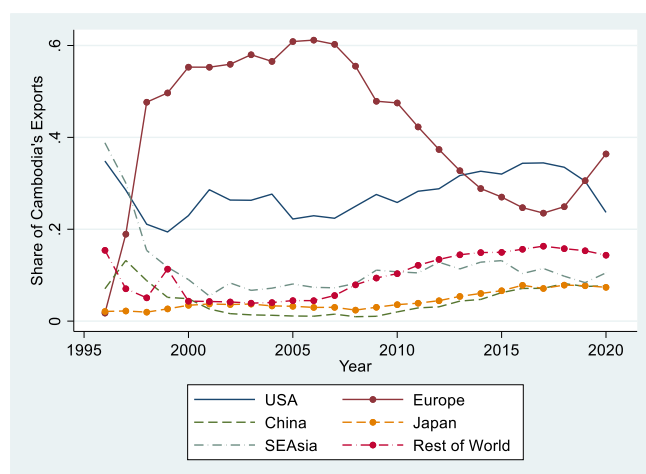
Source: Authors' elaboration using data from the BACI gravity database

4. Shift-Share (Bartik) Analysis

The goal of this section is to assess how export expansion affected local labor market outcomes in Cambodia, exploiting variation in export expansion across provinces and industries between 2010 and 2020 (Bartik, 1991). To this effect, we combine export data from UNCOMTRADE data, and information on local labor market outcomes from CSES data. Details on each dataset and cleaning techniques are described below.

Overview of the Approach

We use a shift-share model that assesses the effect of trade on Cambodia's local labor market outcomes. Following Bartik's (1991) approach, we estimate how increases in exports per worker (as a measure of exposure to trade) affects informality, wages, and hours worked at the district level. As noted, labor-market outcomes vary significantly across districts. Following many in the literature, we assume that the districts represent relatively independent local labor markets. The identification strategy under this assumption is that labor-market outcomes will vary in response to differential exposure to exports. The differential exposure to exports is calculated using *a priori* district-level employment in different exporting sectors.

We estimate the following equation:

$$y_{t+n}^d - y_t^d = \beta_0 + \beta_1 x_{t,t+n}^d + X_c' \beta_c + \epsilon_d, \tag{2}$$

In equation (2), $y_{t+n}^d - y_t^d$ is the change in outcome of interest. Examples include the employment rate, informality rate, female participation rate, average annual income average annual wage, college premium, or gender wage gap, and so on, identified at district r over the period from time t to $t+h$. $x_{t,t+n}^d$ is the change in the export exposure index (change in exports from Cambodia to the United States (US) weighted by sectoral employment). The export exposure is measured as the growth in Cambodian exports in industry i between multiple time periods captured by the term $W_{t+n}^i - W_t^i$. This change is allocated to each district in Cambodia by dividing this expression with L_t^d, which is employment in district d in Cambodia in the initial period 2009. This index is further weighted by share of district d in total employment in Cambodia in industry i ($\frac{L_t^{i,d}}{L_t^d}$).

$$x_{t,t+n}^d = \sum \frac{L_t^{i,d}(W_{t+n}^i - W_t^i)}{L_t^d L_t^{i,cambodia}}$$

The key coefficient of interest is β_1, which measures the impact of total trade exposure on the outcome, and X_c' is the vector of control variables including individual demographic background taken from Cambodia Labor Force Survey (LFS).

Estimation issues

The first estimation issue is potential endogeneity in the export exposure covariate. Since we observe changes in labor outcomes and exports simultaneously, we cannot identify which is driving the other. To ensure exogeneity of our export exposure, we need a variable that predicts exports from Cambodia based solely on its trading partners internal demand growth, rather than supply-side determinants. Hence, we construct our instrument using time series regressions of Cambodia's exports to U.S., its largest trading partner, on U.S. GDP by industry at the four-digit level, as we explained in the next few paragraphs.

The choice of the instrument is grounded in two reasons. First, Cambodia has a highly concentrated export basket both in terms of merchandise (garments) and trading partners (the U.S.).[2] This characteristic makes other country imports a less suitable proxy for Cambodia's exports external demand. Therefore, our model best suits the Cambodian exporting context.

Given this, we instrument the trade exposure index as follows:

$$x_{t,t+n}^d = \pi_0 + \pi_1 z_{t,t+n}^d + X_c{}'\pi_c + e_d, \qquad (3)$$

In equation (3), $z_{t,t+n}^d$ are predicted values from time-series regressions of Cambodia's exports to the U.S. on the U.S. GDP by industry, as a proxy for Cambodia exports to the U.S. solely explained by external aggregate demand.

A second estimation issue is the validity of segmented labor market assumption. Existing labor mobility barriers or rigidities (such as commuting costs or lack of transport infrastructure) allow us to observe variations in local labor market outcomes and, as a result, to estimate the effects of differentiated exposure to trade.

Qualitative evidence in the literature suggest that labor markets are geographically segmented. For example, an Asian Development Bank (ADB) report highlights that recruiting from Phnom Penh and some other major cities is reportedly very difficult. On the other hand, firms do not appear to be offering wages above the legal minimum (plus legally required bonuses) to attract workers. Further, one heuristic method for assessing labor market integration involves examining the standard deviation of wages across regions and over time. This heuristic measure is used because various factors can prevent wage equalization across regions. To investigate the level of labor-market integration in Cambodia, we calculate district premiums, which can indicate the presence of segmented labor markets. Table A1 in the Annex clearly show that wages are not equal across districts in Cambodia, providing strong support for the presence of segmented labor markets during our study period.

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[2] Since Cambodia became the first least-developed country to join the World Trade Organization (WTO) in 2004, trade has steadily increased. The United States is Cambodia's largest single-country export destination, with approximately 40 percent of Cambodia's total exports going to the United States – primarily comprised of garment, footwear, and travel goods products (International Trade Association, United States).

Data

The shift-share Bartik analysis draws on labor market indicators from the *Cambodia Socio-Economic Survey (CSES)* and on trade flows from the United Nations (UN) COMTRADE database. Combines, these surveys provide information on employment, informality, wages, and trade flows in 2009, 2014, and 2019. We include the distribution of employment across provinces in Cambodia in the appendix (Table A1).

Annual bilateral trade flow data come from the UN COMTRADE database. This analysis focuses on Cambodian exports, or its analog (world imports of the rest of the world from Cambodia). We merge these trade data with labor market indicators using the concordance between ISIC rev 3.1 (from CSES) and HS0 – 1988/92 trade classification (used by UN COMTRADE). We include the instrumented change in export exposure between 2009 and 2014 and 2009 and 2019-20 by district in the appendix (Table A2).

Results

<u>Informality</u>

Our Bartik second stage estimates in Table 4.1 show that an increase in trade exposure (measured by exports per worker) correlates with a decrease in informality rates in Cambodia.[3] More specifically, a foreign demand shock of US$100 in the period 2009–2014 is related with a decrease of nearly 0.14 percent in informality rate, which dissipates overtime to 0.03 percent for the 2009–2019 period. These results are consistent with the hypothesis that increasing exports help decrease informality and imply that districts with higher exposure to trade have indeed experienced a decrease in their informality rate. The results for 2014-2019 are not statistically significant.

Table 4.1: Estimated effect on informality rate from a US$100 increase in exports per worker in Cambodia

VARIABLES	Informality rate, 2014-2009	Informality rate, 2019-2009	Informality rate, 2019-2014
Foreign demand shock (USD 100), 2014-2009	-0.135** (0.0624)		
Foreign demand shock (USD 100), 2019-2009		-0.0254* (0.0143)	
Foreign demand shock (USD 100), 2019-2014			-0.0165 (0.0119)
Observations	183	185	183
R-squared	0.203	0.176	0.160

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[3] We show the first stage of our estimations in the appendix.

Note: Controls are not exhaustive yet.
Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
The table contains the results from a single, exactly-identified OLS instrumental variable regression for 2009, 2014, 2019, and 2020 Cambodia Socioeconomic Survey (CSES) data.

Hours worked

In terms of hours worked, we also find results that support our hypotheses (Table 4.2). First, in the long run (2009–2019), increases in exports per worker correlate with increase in mean weekly work hours for male, female, and overall workers. For females, a foreign demand shock of US$100 per workers leads to an increase in mean weekly working hours by 54 minutes, higher than nearly 41 minutes increase in mean weekly hours for male workers. For a shorter period of time (2009–2014), only the coefficient for female workers is statistically significant at a 10 percent significance level. This is not surprising since Cambodia specializes in female-intensive exports, and hence increases in trade exposure in Cambodia are likely to affect female working hours more.

Table 4.2: Estimated effect on hours worked from a US$100 increase in exports per worker in Cambodia

VARIABLES	Mean weekly hours.	Mean weekly hours, Male	Mean weekly hours, Female
Foreign demand shock (USD 100), 2014-2009	0.0342	0.0197	0.0497*
	(0.0221)	(0.0175)	(0.0290)
Observations	183	183	183
R-squared	0.504	0.520	0.482
Foreign demand shock (USD 100), 2019-2009	0.00933**	0.00681**	0.0110**
	(0.00459)	(0.00341)	(0.00557)
Observations	185	185	185
R-squared	0.419	0.516	0.333
Foreign demand shock (USD 100), 2019-2014	0.00751	0.00626	0.00848
	(0.00528)	(0.00424)	(0.00612)
Observations	183	183	183
R-squared	0.041	0.169	0.013

Note: Controls are not exhaustive yet.
Robust standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$
The table contains the results from a single, exactly-identified OLS instrumental variable regression for 2009, 2014, 2019, and 2020 Cambodia Socioeconomic Survey (CSES) data.

In sum, the increase in Cambodian exports arising from trade policies in the last few decades correlates with improving local labor market outcomes. First, the decrease in informality rate has proven to be related with increases in trade exposure. Moreover, in those districts where trade exposure is higher, workers (especially women) tend to be working more, which might help mitigate gender disparities (at least in terms of participation). These findings are all supported by the literature and classical theories that increases in trade are beneficial for local labor market outcomes.

5. Conclusions

In Cambodia, the trade liberalization policies of recent decades have coincided with one of the strongest growth rates among developing countries. Moreover, structural transformation from agriculture to other industries—largely provoked by increases in trade—boosted job creation, triggered productivity gains, and helped reduce poverty and inequality.
This paper expands on the Cambodian trade liberalization literature by using the most recent data available to examine the effects of trade policies on trade flows, and how increasing

trade exposure affects local labor market outcomes. By implementing the well-known gravity analysis and the widely used Bartik (1991) shift-share analysis, our results show that:

  i. trade agreements between Cambodia and ASEAN countries correlate with increases in trade flows, and Cambodia's specific gains from these increases are larger than the average of the rest of the countries, and
  ii. increases in trade exposure in Cambodia's districts correlate with reduction in informality and an increase in weekly hours worked, with more positive effects for female workers.

These results, although expected, seem to fade over time, which may imply that trade benefits diffuse through the economy over time through labor market integration. Further research is needed to evaluate the degree of dissipation of export effects. It is important to note that while these changes have been positive, the effects on informality have been relatively small. Despite significant structural transformation, informality has changed little and remains quite high in Cambodia. This suggests that while trade liberalization has driven some economic progress, it has not sufficiently addressed the deep-rooted issue of labor informality.

Sustained efforts and targeted policies are required to ensure that the benefits of trade and structural transformation are more evenly distributed, leading to inclusive and sustainable economic development in Cambodia. First, targeted interventions to formalize the labor market are essential. This could include strengthening labor laws, enhancing social protection mechanisms, and providing incentives for businesses to formalize their operations. Additionally, policies aimed at improving the quality of jobs and ensuring fair wages can help mitigate the persistent high levels of informality.

Moreover, future research should focus on understanding the specific barriers to labor market formalization in Cambodia. Studies could investigate the role of education, skills development, and access to finance in promoting formal employment. Additionally, examining the impact of sector-specific policies and their effectiveness in different regional contexts can provide valuable insights for tailored policy interventions.

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Annex

Table A1: Summary Stats (Distribution of Workers across regions/provinces)

Provinces	2009	2014	2019-20
1	4.57	4.8	5.57
2	6.41	8.04	6.27
3	7.81	6.43	5.94
4	3.55	2.98	3.24
5	6.68	5.49	6.1
6	4.58	4.35	4.35
7	4.68	4.37	3.85
8	8.37	9.72	7.94
9	0.79	1	0.86
10	2.17	2.81	2.47
11	0.71	0.54	0.6
12	9.75	11.29	12.73
13	1.03	1.31	1.68
14	7.16	6.59	6.99
15	3.06	3.42	2.77
16	1.29	1.05	1.46
17	6.7	6.99	6.56
18	1.67	1.83	2.13
19	0.78	0.92	1.15
20	4.04	3.31	3.51
21	6.87	5.85	6.11
22	1.02	1.81	1.88
23	0.27	0.03	0.32
24	0.38	0.18	0.51
25	5.65	4.87	4.99
Total	100	100	100

Source: Author's calculations based on CSES 2009-2019

Table A2: Change in instrumented export exposure, by periods

districtNew	Export exposure, 2014-2009	Export exposure, 2019-2009
102	52.10	112.37
103	50.85	107.15
104	37.37	55.93
105	26.80	57.26
106	95.29	215.08
107	19.96	46.73
108	64.34	139.19
109	32.89	71.05
110	1,040.38	2,213.74
201	37.41	80.90
202	73.70	161.18
203	80.07	170.18
204	40.86	90.08
205	111.44	240.96
206	73.85	160.24
207	20.75	45.32
208	53.65	117.66
209	31.76	69.31
210	20.22	44.12
211	52.80	117.05
212	14.92	31.99

213	13.86	30.25
214	43.15	93.99
301	151.78	242.26
302	48.60	105.54
303	55.35	119.54
305	84.68	190.26
306	120.29	263.70
307	255.47	546.23
308	243.05	507.53
313	66.64	146.16
314	77.23	167.22
315	38.88	82.12
401	27.23	59.82
402	45.31	98.75
403	84.66	181.86
404	26.53	57.53
405	719.45	1,540.35
406	107.23	226.33
407	168.53	366.79
408	85.14	186.30
501	193.66	418.42
502	66.50	143.87
503	268.76	579.57

504	57.97	125.34
505	82.82	180.14
506	210.70	453.11
507	412.04	885.03
508	236.60	507.33
601	51.75	111.98
602	99.93	215.94
603	81.35	176.42
604	117.40	260.47
605	22.52	64.28
606	34.29	72.41
607	111.29	233.48
608	86.75	188.50
609	128.29	276.79
701	97.49	210.64
702	40.10	87.58
703	59.05	128.73
704	5.69	12.42
705	43.03	93.65
706	96.05	207.15
707	52.15	116.90
708	113.62	242.90
801	300.58	650.44

802	402.76	870.62
803	112.13	242.38
804	1,532.69	3,337.71
805	47.42	105.82
806	80.67	175.26
807	196.16	414.22
808	233.72	503.54
809	102.15	229.22
810	183.63	395.16
811	201.60	430.37
901	37.08	76.13
903	15.13	32.00
904	13.94	25.31
906	0.83	2.52
907	43.85	95.77
1001	32.60	70.46
1002	17.13	37.38
1003	22.64	48.97
1004	16.67	35.24
1005	21.62	47.18
1006	39.79	86.67
1101	39.26	85.70
1105	18.99	45.68

1201	107.47	230.57
1202	624.69	1,360.64
1203	447.83	953.44
1204	90.94	194.96
1205	345.97	745.32
1206	325.72	675.16
1207	112.45	241.63
1208	184.11	397.01
1209	277.99	605.01
1210	74.31	157.60
1211	194.86	416.73
1212	276.05	603.65
1213	95.32	294.95
1214	379.64	816.89
1301	58.31	127.65
1303	30.12	64.97
1304	131.46	286.79
1305	119.45	261.63
1306	37.19	80.98
1308	10.07	25.73
1401	108.92	235.54
1402	96.14	207.64
1403	46.21	99.00

1404	30.57	66.66
1405	126.15	272.83
1406	11.31	24.67
1407	13.29	27.89
1408	154.55	336.96
1409	61.85	134.31
1410	90.97	194.84
1411	100.97	218.68
1412	168.67	349.93
1413	56.88	123.46
1501	47.55	103.90
1502	13.74	29.74
1503	21.83	49.19
1504	32.51	70.91
1505	24.97	53.86
1507	52.61	114.08
1601	48.64	106.14
1602	3.22	6.38
1603	48.39	105.62
1605	45.80	99.95
1606	35.06	76.51
1608	45.98	100.35
1701	66.31	137.26

1702	34.03	73.73
1703	29.77	69.30
1704	25.71	58.37
1706	72.34	123.74
1707	42.72	91.83
1709	33.96	73.89
1710	21.83	48.50
1711	28.34	60.29
1712	31.62	69.09
1713	0.06	0.13
1714	514.07	1,094.39
1801	126.04	282.99
1802	73.24	160.65
1901	27.96	64.10
1902	38.28	85.04
1904	84.22	180.91
1906	32.83	70.54
2001	326.91	699.61
2002	709.77	1,505.67
2003	79.97	172.90
2004	99.37	213.96
2005	82.43	177.47
2006	48.89	105.62

2007	62.68	134.20
2008	25.02	53.74
2101	65.89	142.47
2102	87.60	174.08
2103	124.49	268.42
2104	189.96	341.11
2105	124.57	270.27
2106	197.00	430.39
2107	138.59	299.52
2108	112.04	240.81
2109	224.24	482.61
2110	186.30	404.24
2201	72.35	154.49
2202	8.33	16.03
2203	46.13	100.67
2204	94.39	203.59
2205	7.12	15.38
2302	52.42	113.93
2401	22.11	49.20
2501	48.69	105.06
2502	67.45	149.35
2503	152.21	325.87
2504	83.70	179.80

2505	35.84	78.21
2506	45.36	98.07
2507	39.21	85.71

Source: Author's calculations based on UNCOMTRADE data and CSES 2009 employment weights. The table shows the change in instrumented exports per worker in US dollars between two time periods.

Figure A1: . Relationship between Cambodian (X) and US imports from Cambodia (Z)
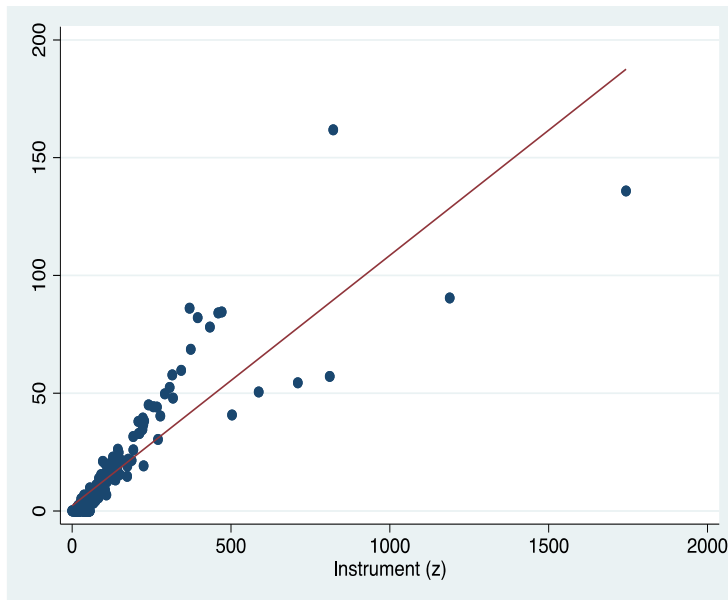
Note: Figure 1a shows a visual representation of the first-stage regression, changes in exposure to exports (x) are strongly correlated with changes in exposure to foreign demand growth as estimated by instrument (z).