GSP Expiration and Declining Exports from Developing Countries

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Abstract

This paper investigates whether the 2011 expiration of the most comprehensive trade preference program (Generalized System of Preferences or GSP) offered by the US had a detrimental impact on the exports from developing countries. The impact of GSP expiration is examined with a triple difference-in-differences estimation that controls for both country- and product-level export changes. Even though the duties collected during the period of expiration are ultimately refunded after GSP is reauthorized, the findings of this paper suggest that the expiration of GSP has a considerable impact on the level of exports to the US; on average exports dropped by 3 percent in 2011, with exports of agricultural products and textiles and clothing declining as much as 5 and 9 percent, respectively. The decline is increasing in the tariff rates and decreasing in the size of exports.

Keywords: Generalized System of Preferences (GSP), GSP expiration, exports from developing countries, trade policy uncertainty

JEL Classifications: F13, O19

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"So, what's the impact [of GSP expiration]? Well, the actual amount of goods coming in through the GSP program is relatively small, at $19 billion in 2012 (or just about 2 percent of U.S. imports). And theoretically, the tariffs get refunded when the program is finally reauthorized, so no big deal, right?"

– The Washington Post, August 12, 2013

1 Introduction

Preferential market access is of critical importance to many exporters in developing countries. And a number of developed countries provide preferential including duty-free access to their markets to stimulate exports from developing countries. About one-third of dutiable exports from developing countries to the US are eligible for the Generalized System of Preferences (GSP), the most comprehensive (in terms of country coverage) trade preference program offered by the US.

Notwithstanding the preferential treatment, the existing literature identifies a number of factors that may inhibit the exports from developing countries or lead to low take-up rates under GSP. Examples include stringent rules of origin requirements and eroding preference margins (Hakobyan, forthcoming; Francois et al., 2006; Reynolds, 2009). An additional hurdle to the utilization of the program, often overlooked in the literature, is its frequent expiration; GSP is not a permanent program and needs to be periodically renewed by the Congress. And even though the duties paid during the periods of expiration have traditionally been reimbursed to exporters after the retroactive re-authorization of GSP, the unexpected expiration of benefits may have detrimental effect on particularly small exporters whose costs rise suddenly for uncertain period of time. Furthermore, the frequent expiration of benefits may also raise uncertainty about the viability of the program in the long run thus discouraging investment in production of GSP eligible products.

This paper takes advantage of Congress' failure to renew the GSP and its unexpected

expiration in 2011 to quantify the effect of GSP expiration of exports from developing countries to the US. The expiration resulted in revocation of tariff exemptions on exports of about 3,500 products – at the Harmonized System (HS) 8-digit level – from about 130 GSP eligible developing countries. Tariffs increased uniformly across all developing countries eligible for the GSP, with the least developed countries becoming subject to tariff increases on additional 1,400 products.[1] This was followed by a reduction in exports claiming GSP from $22.5 billion in 2010 to $18.5 billion in 2011.

Because GSP benefits applied selectively to both countries and products, I am able to estimate the impact of revocation of tariff exemptions using triple difference-in-differences (product, country, expiration). As the rhetorical quote above from The Washington Post suggests we should not observe much impact on exports due to GSP expiration because the duties are ultimately refunded (DePillis, 2013). The findings of this paper, however, suggest otherwise; the expiration of GSP in 2011 had a considerable effect on the level of exports and propensity to export to the US. Exports dropped by about 3 percent on average in 2011, with exports of textiles and apparel products declining by as much as 9 percent. The probability of a GSP eligible country exporting a GSP eligible product to the US decreased by 0.34 percentage points (1.25 percentage points for textiles and apparel). The impact of GSP expiration was the largest in product categories facing higher tariffs; exports of products facing 15 percent or higher tariff rates dropped by about 11 percent. Finally, the expiration hit small exporters, defined at the country-product level, the hardest suggesting that credit constraints in the short run may partly explain the decline in exports from developing countries. Furthermore, large exporters also experience decline in their exports, albeit much smaller in magnitude, pointing to the possible role that trade policy uncertainty may have played in reducing exports. These findings emphasize the importance of trade preference programs in maintaining and stimulating exports from developing countries, and are most relevant to the current policy debate on the renewal of

[1] 43 least developed countries qualified for these additional benefits in 2010.

GSP that was allowed to expire again on August 1, 2013 (Jones, 2013).

The remainder of this paper is organized as follows. Section 2 provides background on the US GSP expiration and discusses the relevant literature. The empirical specification is introduced in Section 3 and the data in Section 4. Results are reported in Section 5, and concluding remarks are provided in Section 6.

2 Background and Related Literature

The GSP program was first enacted in January 1975, reauthorized in 1984, and has been renewed eleven times since: 1993 (retroactively), 1994 (retroactively), 1996 (retroactively), 1997 (retroactively), 1998 (retroactively), 1999 (retroactively), 2002 (retroactively), 2006, 2008, 2009 and 2011 (retroactively, through July 2013). Prior to 2006 the GSP was always renewed retroactively from the expiration date to the date of enactment. The 2006 renewal (until December 2008) was the first time since 1993 that the program had not been allowed to lapse prior to renewal. And such renewal was implemented two more times in 2008 and 2009. However, in 2010 Congress failed to renew the GSP and, it lapsed as of January 1, 2011 until November 5, 2011 when it was renewed again retroactively. It is worth noting that when the GSP is renewed retroactively to the date of its expiration, the duties paid by exporters are ultimately refunded to them. Nevertheless, there is no statutory requirement to refund duties or renew GSP retroactively.

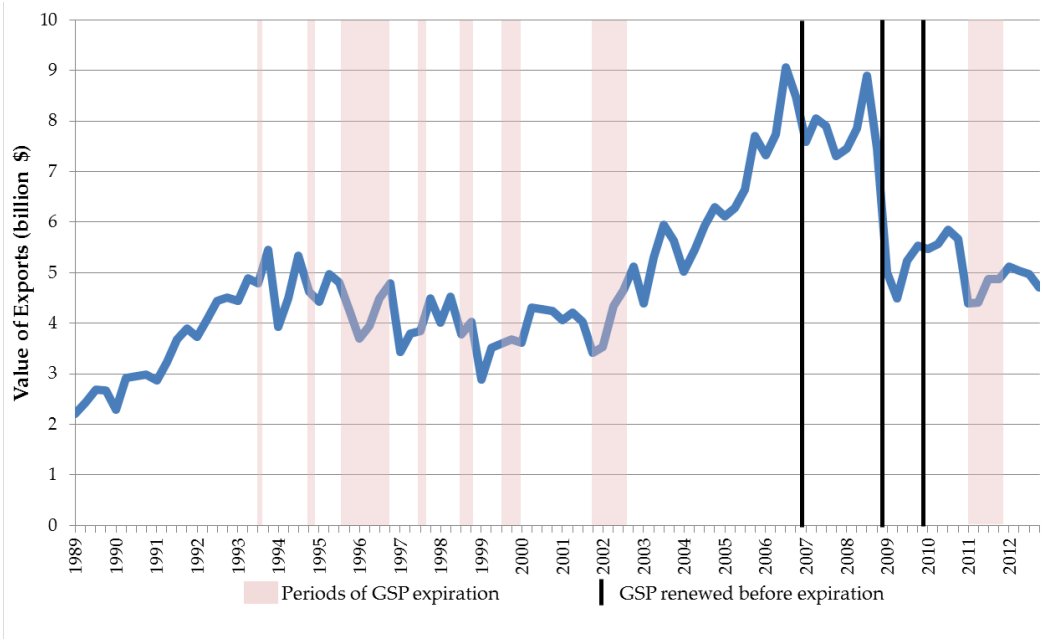
The expiration of GSP in 2011 lasted 10 months, similar in duration to the expiration in 2001-2002 (Appendix Table A1). Yet, it was unique (and more appropriate for the analysis here) in several respects. First, the 2001 expiration coincided with September 11, 2001 attacks on the World Trade Center when exports from all countries to the US collapsed due to increased security at the border. Thus, it might be difficult to disentangle the effect of 9/11 from the effect of GSP expiration. Second, the timing of the expiration in 2001-2002 is not ideal for analyzing the impact on annual exports, as the expiration spans across two

years, from October 2001 through August 2002. Finally, the 2011 expiration was unexpected; the GSP was renewed several times prior to its expiration between 2002 and 2010 which may have built up some expectations about its unfailing renewal by the Congress for the years to come. Yet, at the end of 2010 Senator Jeff Sessions (R-AL) blocked the legislation extending the GSP program in Congress, at the request of a domestic manufacturer of sleeping bags who competed with Bangladeshi exports of similar products (The New York Times, 2011). On the contrary, the 2001-2002 expiration was preceded by brief (up to 6 months) lapses of GSP in 1997, 1998 and 1999.

The existing literature typically examines the effect of extending preferential access by studying the trade patterns following the removal of tariffs. The clear focus is to gauge how these preferences stimulate exports of beneficiary countries. The general consensus among the findings in this literature is that trade preference programs tend to foster exports from developing countries in the short run (Hoekman and Özden (2005), Agostino et al. (2007) and Cardamone (2007) provide extensive surveys) but not in the long run (Herz and Wagner, 2011; Özden and Reinhardt, 2005). More specific to the US trade preference programs, Lederman and Özden (2007) examine the impact of various US preferential arrangements and find that exporters benefit substantially from regional preferential programs, but not GSP. Frazer and Van Biesebroeck (2010) find that African Growth and Opportunity Act (AGOA) had a large impact on exports to the US, especially for apparel and manufacturing products. A related strand of literature examines the effect of revocation of tariff exemptions for certain countries and products. Hakobyan (2012) and DeVault (1996) explore a feature of GSP that caps the benefits of most successful exporters and find that exports of affected country-product pairs decline after the revocation of tariff exemptions.

This paper also provides another lens through which to think about trade policy uncertainty. A growing literature on trade agreements and uncertainty provide evidence of the positive effect of uncertainty reducing trade agreements on trade flows and firms' invest-

Figure 1: Exports under GSP, 1989-2012 (quarterly, not seasonally adjusted)



ment decisions (Handley and Limão, 2012; Handley, 2012). Handley and Limão (2013) show that Chinese export growth in 2000-2005 was higher in those industries that faced greater trade policy uncertainty. In the context of GSP, uncertainty may have different origins. The GSP expires periodically and there is uncertainty whether it will be renewed prior to its expiration. If it is not renewed, then additional uncertainty arises from the duration of the lapse; the past expirations ranged from 36 days to over a year (Appendix Table A1). Finally, there is no requirement that the Congress renew GSP retroactively, although this has been the practice in the past. This is particularly important in the current renewal debate as legislators may be reluctant to forgo the collected duties amidst recent discussions of greater austerity.

To my knowledge, this is the first paper to empirically examine the effect of the US GSP expiration on trade flows from developing countries. An annual report on GSP (2013) by The Trade Partnership, a Washington-based consulting firm, is the only source pointing to the link between the GSP expiration (or the length of renewal) and exports of developing countries under the GSP. Figure 1 illustrates the quarterly GSP exports to the US between

1989 and 2012 (not seasonally adjusted), with shaded areas representing periods of GSP expiration and solid lines indicating dates when GSP was renewed prior to its expiration. Looking at Figure 1, one may argue that GSP expiration and particularly the frequency of its expiration hamper the growth of exports to the US under the GSP program, at least at the onset of the expiration.

3 Empirical Specification

To gauge the impact of GSP expiration on the volume of exports from developing countries to the US, I examine the pattern of dutiable exports from all countries to the US, regardless of their GSP eligibility. More specifically, I employ a nonrestrictive triple-difference regression specification to measure the magnitude of the GSP expiration effect as follows:

$$lnExports_{cpt} = \beta GSPcountry_c \times GSPproduct_p \times Expired_t + \gamma_{cp} + \delta_{ct} + \theta_{pt} + \epsilon_{cpt}. \quad (1)$$

$Exports_{cpt}$, the dependent variable, refers to exports of product p from country c to the US in year t. The variable $GSPcountry_c$ is a time-invariant dummy that takes the value of 1 if a country is GSP eligible and 0 otherwise.[2] Likewise, the variable $GSPproduct_p$ is a time-invariant dummy that takes the value of 1 for products eligible for duty-free treatment under GSP and 0 otherwise. The variable $Expired_t$ is a dummy that switches from 0 to 1 for all countries and products in 2011 when GSP was expired for the 10 months of the year.[3] The empirical specification allows for a full set of country-product γ_{cp}, country-year δ_{ct} and product-year θ_{pt} fixed effects. These interactive fixed effects allow for heterogeneity in the level of exports of any product from any country in a year when GSP is in effect, the overall exports of any country to the US in any year, and the overall exports of any product

[2]For the purposes of this paper, GSP eligible countries are defined as those that qualify for duty-free treatment only under the GSP program. Countries that are eligible for other trade preference programs (AGOA, CBERA, ATPA) are able to claim duty-free treatment under these alternative programs, and hence, the GSP expiration should have negligible impact on their exports to the US.

[3]This specification already requires a large number of fixed effects, and working with monthly or quarterly data would introduce mostly zero-valued export observations.

to the US in any year. The only estimated coefficient (aside from all the fixed effects) is the one on the triple interaction term, β, which measures the impact of GSP expiration.

The triple difference-in-differences is more robust than a standard difference-in-differences estimation. The standard difference-in-differences approach at the country or product level might inaccurately attribute country- or product-level trends in exports to the impact of GSP expiration. At the country level, consider a country that lost GSP tariff exemptions at the time when the economic conditions in the country were deteriorating. A decrease in exports from this country to the US could coincide with the GSP expiration, even though the decrease merely reflects the overall state of the exporter's economy. The country-by-country difference-in-differences estimator would mistakenly attribute this negative export effect to GSP expiration. At the product level, consider the GSP tariff exemptions were revoked from products for which the US demand was expected to drop. Here again, a product-by-product difference-in-differences estimator would attribute a negative effect to GSP expiration if the general drop in exports of eligible products merely extended to countries eligible for the program.

The use of triple-difference estimator addresses these concerns. The decrease in exports of a given GSP eligible product from a GSP eligible country to the US during the period of GSP expiration is measured relative to the overall decrease in exports from that country, the overall decrease in exports of that product and the general level of exports of GSP products from GSP countries.

While the triple-difference specification has an advantage in isolating the impact of GSP expiration, there may be other limitations to my analysis. In particular, in all previous instances when the Congress failed to renew GSP prior to its expiration, the GSP was always renewed retroactively, and the paid duties were refunded to exporters. The payment of such refunds has become increasingly easy with the widespread use of electronic payment transactions. For this reason, it is not evident that one would find negative effects from GSP expiration, except for the fact that expirations lasted few months in the past and the

wind of political change pointing to greater austerity in 2011.

The discussion thus far has focused on responses at the intensive margin. The revocation of tariff exemptions might not only force countries to reduce the volume of exports but also may prompt them to stop exporting a range of products to the US. As zero export observations are included in the regression, the estimated effect of the revocation of tariff exemptions will include both the response at the intensive margin - decreased exports - and the extensive margin - stopped exports. I use a linear probability model to isolate the response at the extensive margin by re-estimating equation (1) where the dependent variable is replaced with a dummy that takes the value of 1 if the country-product-year observation has positive exports to the US and 0 otherwise.

4 Data

I create a three-way balanced panel of all countries and all dutiable products at the HS 6-digit level in three years of my sample period.[4] The dependent variable for most of the analysis is the log exports of a particular product from each country in the world to the US from 2010 to 2012, obtained from the US International Trade Commission (USITC).[5] If nothing is reported, exports are set to zero. I follow the usual practice of adding one dollar to all export values before taking logarithms.[6] For the regressions examining the extensive margin a dummy variable is created that takes the value of 1 if exports are positive and 0 otherwise.

The list of GSP eligible countries and products are also obtained from the USITC. GSP product eligibility is defined at the HS 8-digit level of aggregation, the same level at which the tariff rates are set. To allow for the estimation given the large number of interac-

[4]26 (primarily island) countries for which less than 5 product categories were observed in any of the three years were dropped from the sample. Of these, 15 were GSP eligible.

[5]Throughout the paper I use US imports from all its trading partners obtained from the USITC Trade DataWeb which is a more reliable and accurate source of data for exports from developing countries to the US.

[6]To check the robustness of results, I re-estimated the model using other functional forms which yield GSP expiration effects of similar magnitude.

Table 1: Summary Statistics, 2010

Number of Products and Export Values by Country				
	GSP countries (67)		Non-GSP countries (138)	
	Mean	St Dev	Mean	St Dev
All dutiable products	3,179		3,179	
All dutiable products (exports>0)	250	(428)	479	(697)
GSP-eligible products (exports>0)	145	(281)	322	(497)
Log exports (all)	0.88	(3.12)	1.75	(4.31)
Log exports (exports>0)	11.17	(2.97)	11.59	(3.07)
Limited to GSP Eligible Countries				
By country	All	Exports>0 (mean)	Exports>0 (max)	Avg. Tariff (exports>0)
GSP products (all)	2,299	145	1,468	4.2%
Agricultural	376	20	149	4.0%
Fuel and Minerals	103	4	53	2.9%
Textiles and Clothing	17	2	12	4.4%
Manufacturing	1,803	118	1,254	4.2%

Notes: GSP countries refer to only those countries that are GSP eligible and do not qualify for other trade preference programs such as AGOA, CBERA and ATPA. GSP products refer to those at the HS 6-digit level for which the underlying all HS 8-digit products are GSP eligible.

tive fixed effects and the number of observations with zero valued exports, I aggregate GSP product eligibility to the HS 6-digit level by constructing trade weighted averages across subcategories.[7,8] Thus, the $GSPproduct_p$ variable represents the fraction of eight-digit products (by value) that are eligible for duty-free treatment under GSP. Tariff rates obtained from the USITC are measured as either the ad valorem tariff or the ad valorem equivalent for specific tariffs, and are aggregated to the HS 6-digit level using the same weights as for the GSP eligibility dummies.

Table 1 provides the summary statistics for 2010, the year prior to the GSP expiration. GSP countries export fewer products and smaller amounts than the average country. From the universe of 3,179 products, the average GSP country has positive exports in 250, and

[7]Time invariant trade weights are constructed using US worldwide imports in 2010, the year immediately preceding the year of expiration.

[8]To check the robustness of results, I re-estimate the benchmark regressions at the HS 8-digit level. The results reported in Columns 2 and 4 of the Appendix Table A2 are not qualitatively different from those at the HS 6-digit level. Hence, throughout the paper I report the results using the sample at the HS 6-digit level. The results at the HS 8-digit level are available upon request.

145 enter the US under the GSP (out of potential 2,299 GSP products). Manufacturing products dominate the export basket of an average GSP country; more than three-quarters of GSP exports are manufactures (118 out of 145). The most successful exporting country (India) exports more than half of all GSP eligible products (1,468 out of 2,299). Average trade-weighted tariff rates for all product categories are in the range of 4.0-4.4%, except for fuel and mineral products.

5 Results

Estimates of equation (1) are reported in Table 2. Column 1 reports the results for a specification with a full set of country-product, country-year and product-year fixed effects estimated using the three-way balanced panel of all countries for all dutiable products between 2010 and 2012. The coefficient on the triple-interaction term measures the effect of GSP expiration. It is identified from the change in export levels when GSP was expired versus when it was in place, controlling for the baseline export level and general country and product export changes that can vary by year. The estimates indicate that the GSP expiration is associated with a statistically significant (at the 1 percent level) average drop of 2.88 percent in exports to the US.

For comparison, I also report standard difference-in-differences estimates in Columns 2 and 3. The difference-in-differences method can be implemented by restricting the sample either to all dutiable products exported from GSP eligible countries to the US or to GSP eligible products exported from all countries to the US. In Column 2, the sample is restricted to developing countries that can claim duty-free treatment on their exports only under GSP.[9] This specification identifies the GSP expiration effect solely from the relative export drop for eligible versus other products. As in the triple-difference estimation, a full set of country-product and country-year fixed effects is included to allow for the differential

[9]This excludes countries eligible for other US trade preference programs, such as AGOA, ATPA and CBERA.

Table 2: Benchmark Results for the GSP Expiration Effect (three-way balanced panel)

Dependent Variable	$lnExports$	$lnExports$	$lnExports$	Export Dummy
Sample	Full	Only GSP countries	Only GSP products	Full
Method	Triple Diff	Diff-in-Diff	Diff-in-Diff	Triple Diff
	(1)	(2)	(3)	(4)
Marginal effect	-2.88%	-2.81%	-2.48%	-0.29%
Expired × Country × Product	-0.029***	-0.028***	-0.025***	-0.003***
	(0.009)	(0.007)	(0.006)	(0.001)
Fixed Effects	Country-product, country-year, product-year	Country-product, country-year	Country-product, product-year	Country-product, country-year, product-year
Observations	1,955,085	1,093,576	1,023,565	1,955,085
Number of fixed effects	661,847	369,112	346,318	661,847

Notes: Standard errors in parentheses are robust to arbitrary heteroskedasticity. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively. The marginal effects throughout this paper are calculated as $exp(\beta) - 1$ if the dependent variable is $lnExports$. Columns 1 and 4 include all three sets of interactive fixed effects: country-product, country-year and product-year. Column 2 includes country-product and country-year fixed effects, and Column 3 includes country-product and product-year fixed effects.

impact of expiration across countries. The GSP expiration effect becomes -2.81 percent and continues to be statistically significant at the 1 percent level.

In Column 3, the sample is restricted to GSP eligible products exported from all countries to the US.[10] This specification identifies the GSP expiration effect solely from the relative drop in exports from eligible versus ineligible countries. The full set of country-product and product-year fixed effects is included. The GSP expiration effect is slightly smaller and estimated at -2.48 percent, although is still statistically significant at the 1 percent level.

Finally, focusing on the extensive margin, the last column of Table 2 reports the effect of GSP expiration on the probability that an eligible country exports an eligible product to the US. The probability that a GSP eligible country exports a GSP eligible product to the US is decreased by 0.3 percentage points during the period of expiration. This may not

[10]The sample excludes products reserved for least developed countries.

Table 3: Benchmark Results for the GSP Expiration Effect (two-way balanced panel)

Dependent Variable	$lnExports$	$lnExports$	$lnExports$
Sample	Full	Only GSP countries	Only GSP products
Method	Triple Diff	Diff-in-Diff	Diff-in-Diff
	(1)	(2)	(3)
Marginal effect	-18.9%	-18.2%	-12.3%
Expired × Country × Product	-0.209***	-0.201***	-0.131**
	(0.069)	(0.064)	(0.052)
Fixed Effects	Country-product, country-year, product-year	Country-product, country-year	Country-product, product-year
Observations	331,137	70,201	169,505
Number of fixed effects	120,531	110,994	119,916

Notes: Standard errors in parentheses are robust to arbitrary heteroskedasticity. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively. Column 1 includes all three sets of interactive fixed effects: country-product, country-year and product-year. Column 2 includes country-product and country-year fixed effects, and Column 3 includes country-product and product-year fixed effects.

seem to be economically significant, however it is not as small compared to the average probability of exporting which was 7.9 and 12.7 percent in 2010 for GSP eligible countries and all countries worldwide, respectively.

The estimates of the impact of GSP expiration on exports provided in Table 2 are conservative because they employ a three-way balanced panel across all US trading partners, products and years. For example, even if we observe positive exports from a country like Afghanistan in 50 product categories, exports of the remaining product categories (over 3,000) are recorded as zeros. Thus, the estimates in Table 2 provide the effect of GSP expiration on all *potential* trade flows. In reality, however, a country is unlikely to export a full range of potential products, and therefore to estimate the impact of GSP expiration on *actual* trade flows, I construct a two-way balanced panel by limiting the sample to products that are observed being exported at least once during the sample period by each country. These estimates provide the upper bound of the GSP expiration effect and are more consistent with the estimation strategy used by Handley and Limão (2013).

As reported in Table 3, the effect of GSP expiration on observed export flows from

developing countries is considerably larger; the GSP expiration is associated with a statistically significant 19 percent drop in exports. Similar to the pattern observed in Table 2, the standard difference-in-differences estimates underestimate the impact of GSP expiration, more so when the sample is restricted to GSP eligible products. The rest of the paper reports conservative estimates of GSP expiration effect employing a three-way balanced panel; the results from a two-way balanced panel can be found in the Appendix Tables A2-A4.

The results in Table 2 measure the average effect across all GSP eligible countries. However, the effect might be different for least developed beneficiary countries (LDBCs) and developing beneficiary countries (DBCs). In addition to standard GSP eligible product categories, LDBCs qualify for duty-free treatment on additional product groups. Allowing for heterogeneous expiration effect for these two groups of countries simply requires replacing the $GSPproduct_p$ and $GSPcountry_c$ terms in equation (1) with respective terms for LDBCs and DBCs.

Table 4 reports the results of triple-difference specification allowing for heterogeneous country effects. The relative magnitude and significance of the effect for DBCs is similar to those reported in Table 2; the GSP expiration resulted in a statistically significant 3.3 percent drop in exports and 0.34 percentage points drop in the probability of exporting from GSP eligible developing countries. However, the effect on both exports and probability of exporting is insignificant for LDBCs. The imprecisely estimated coefficient on LDBCs could be explained by the small number of least developed countries in the sample. Most LDBCs, as defined for the purpose of GSP, qualify for AGOA which remained intact during the period of GSP expiration, and hence, could have claimed AGOA preferences instead of GSP. Only 14 out of 42 LDBCs (such as Afghanistan, Bangladesh and Nepal) were affected by the GSP expiration.

Next, I allow for heterogeneity in responses by relaxing the assumption that the impact of GSP expiration is the same across different subcategories of products. The 2,299

Table 4: The GSP Expiration Effect for LDBCs and DBCs

Dependent Variable	$lnExports$	Export Dummy
Sample	Full	Full
Method	Triple Differences	Triple Differences
	(1)	(2)
Marginal effect		
DBC	-3.31%	-0.34%
LDBC	-0.99%	-0.06%
Expired × DBC × DBC Product	-0.034***	-0.0034***
	(0.010)	(0.001)
Expired × LDBC × LDBC Product	-0.010	-0.0006
	(0.014)	(0.002)
Observations	1,955,085	1,955,085
Number of fixed effects	661,847	661,847

Notes: Standard errors in parentheses are robust to arbitrary heteroskedasticity. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively. Regressions include country-product, country-year and product-year interactive fixed effects.

six-digit HS products eligible for GSP can be categorized as agricultural (376 products), fuel and minerals (103 products), textiles and clothing (17 products) and manufacturing (1,803 products). To allow for heterogeneous effects for these subcategories, the $GSPproduct_p$ term in equation (1) is replaced with four terms - one for each of the product subcategories.

As seen in Table 5, there are considerable differences in the effect of GSP expiration across different product subcategories. The fuel and minerals effect is insignificant, while the expiration effect is negative and significant for the remaining subcategories. The GSP expiration resulted in 2.63 percent drop in exports of manufacturing products, 4.67 percent in agricultural products, and 9.03 percent in textiles and clothing. Additionally, the extensive margin of trade in these product subcategories is also adversely affected due to GSP expiration; the probability of exporting textiles and apparel products decreases by 1.25 percentage points relative to the average probability of 2.6 percent for GSP countries (and 3.4 percent for all countries) exporting these products prior to expiration. Thus, the probability of exporting textiles and clothing is cut in half for GSP countries. A similar

Table 5: The GSP Expiration Effect for Different Product Categories

Dependent Variable	$lnExports$	Export Dummy
Sample	Full	Full
Method	Triple Differences	Triple Differences
	(1)	(2)
Marginal effect		
Agriculture	-4.67%	-0.39%
Fuels and Minerals	-0.71%	-0.06%
Textiles and Clothing	-9.03%	-1.25%
Manufacturing	-2.63%	-0.27%
Expired × Country × Product Interaction		
Agriculture	-0.048***	-0.004**
	(0.015)	(0.002)
Fuels and Minerals	-0.007	-0.0006
	(0.026)	(0.002)
Textiles and Clothing	-0.095*	-0.013*
	(0.055)	(0.007)
Manufacturing	-0.027***	-0.003**
	(0.009)	(0.001)
Observations	1,955,085	1,955,085
Number of fixed effects	661,847	661,847

Notes: Standard errors in parentheses are robust to arbitrary heteroskedasticity. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively. Regressions include country-product, country-year and product-year interactive fixed effects.

pattern is observed for agricultural products; the probability of exporting declines by 0.4 percentage points relative to the baseline of 0.8 percent for GSP countries (and 1.2 percent for all countries) prior to GSP expiration. On the other hand, the decline in the probability of exporting manufacturing products is relatively smaller – 0.3 percentage points relative to the baseline of 4.3 percent for GSP countries.

To evaluate the impact of GSP expiration at a more disaggregated level, in addition to replacing the $GSPproduct_p$ variable with four product subcategories, I replace the $GSPcountry_c$ variable with the full set of GSP eligible country dummies, thus yielding product category specific triple interaction terms for each eligible country. The average country specific estimates for four product categories – Agriculture (-0.048), Fuel and Minerals (-0.008), Textiles and Clothing (-0.093), and Manufacturing (-0.026) are quite

similar to the results in Table 4.[11] It appears that the GSP expiration effect identified earlier is not driven by a handful of countries. For textiles and clothing, 44 of 65 coefficients are negative, although only 8 are statistically significant. Similarly, for agriculture and manufacturing, 47 and 38 coefficients are negative, with 6 and 13 being statistically significant, respectively. All statistically significant coefficients are negative except for manufacturing exports of four countries (British Indian Ocean Territory, Niger, Samoa, Yemen).

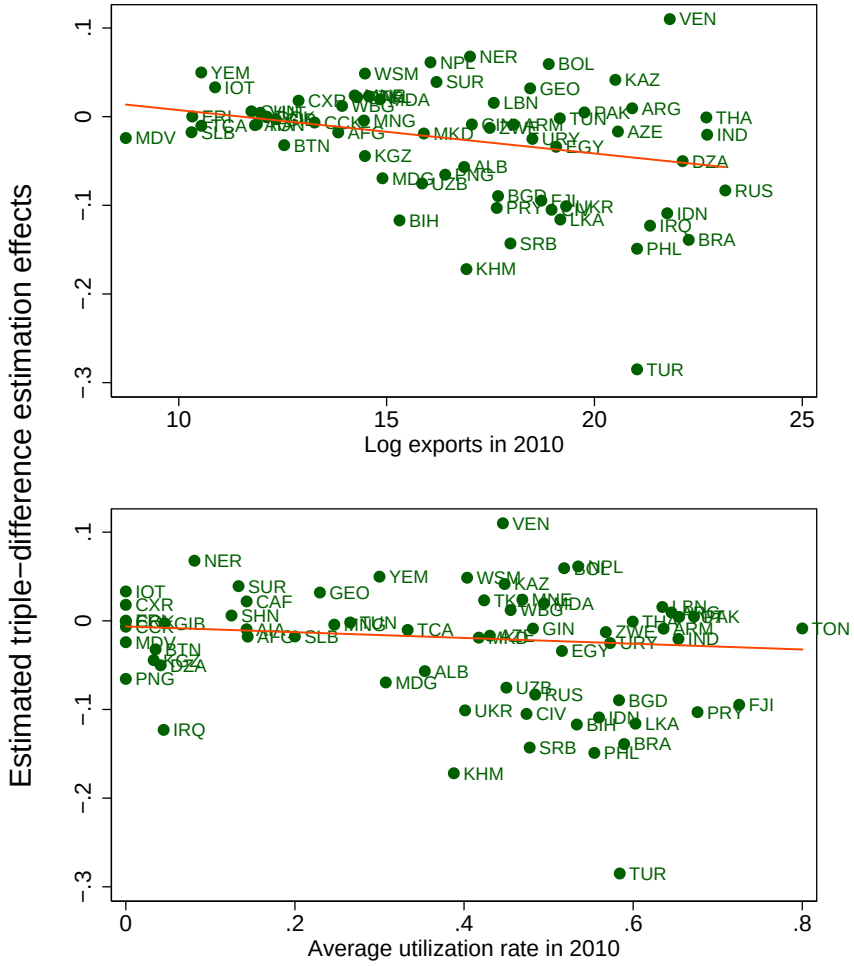
Furthermore, the GSP expiration effect is decreasing in the pre-expiration level of exports and increasing in the pre-expiration average utilization rate (across products). Hakobyan (forthcoming) documents a widespread underutilization of GSP benefits, thus the GSP expiration is more likely to affect those exporters that claimed the benefits in 2010. Hakobyan (forthcoming) further finds that greater exports are generally associated with higher utilization rates. The estimated country specific coefficients are plotted against the initial export level and initial average utilization rate in Figure 2. Countries that exported large quantities to the US and utilized the program extensively prior to GSP expiration are most hurt by the revocation of tariff exemptions.

Finally, I examine the effect of GSP expiration on exports of products facing different levels of tariff rates prior to the expiration. The GSP expiration effect is likely increasing in the tariff rates. In other words, the higher the tariff rate imposed on a product, the greater the loss of duty savings and the greater the decline in exports of such a product. To estimate the impact of tariff increases of different magnitudes, I interact the triple-interaction term in equation (1) with dummies for different tariff groups. The lowest tariff group dummy takes the value of 1 if the 2010 tariff rates were between 0% and 3% and 0 otherwise. The subsequent tariff groups use the following brackets: 3-6%, 6-10%, 10-15%, and higher than 15%.

The results reported in Table 6 confirm the nonlinear effect of tariff increases on exports. As expected, the GSP expiration effect is greatest for high tariff brackets; the revo-

[11] The full set of estimates is reported in the Appendix Table A6.

Figure 2: Country Specific Expiration Effects: Initial Export Level and Utilization Rate



Notes: Linear prediction from OLS regressions of estimated GSP expiration effects on initial log exports and utilization rate (using the inverse of the standard error of each coefficient estimate as weight) is included.

cation of tariff exemptions of more than 15% as a result of GSP expiration induces about 11 percent drop in exports (statistically significant at the 5 percent level), more than triple of the average effect estimated earlier and 4-5 times greater than the effect for the two lowest tariff brackets. The results for the probability of exporting in Column 2 of Table 6 follow the same pattern. The revocation of the highest tariff exemptions is associated with the largest (1.1 percentage points) decline in the probability of exporting.

So far the results have suggested that the GSP expiration leads to a drop in exports from developing countries even though the collected duties are reimbursed after the re-

Table 6: The GSP Expiration Effect for Different Tariff Groups

Dependent Variable	$lnExports$	Export Dummy
Sample	Full	Full
Method	Triple Differences	Triple Differences
	(1)	(2)
Marginal effect		
0-3%	-2.34%	-0.21%
3-6%	-2.83%	-0.30%
6-10%	-3.66%	-0.36%
10-15%	-7.09%	-0.72%
15+ %	-10.86%	-1.08%
Expired × Country × Product		
× Tariff Group Interaction		
0-3%	-0.024*	-0.002
	(0.012)	(0.001)
3-6%	-0.029***	-0.003**
	(0.011)	(0.001)
6-10%	-0.037**	-0.004**
	(0.017)	(0.002)
10-15%	-0.074**	-0.007*
	(0.035)	(0.004)
15+ %	-0.115**	-0.011**
	(0.048)	(0.005)
Observations	1,955,085	1,955,085
Number of fixed effects	661,847	661,847

Notes: Standard errors in parentheses are robust to arbitrary heteroskedasticity. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively. Regressions include country-product, country-year and product-year interactive fixed effects.

authorization of GSP. One explanation for such findings is the presence of credit constraints, particularly in developing countries. Extensive evidence suggests that private firms in many developing countries face severe credit constraints. Using firm-level data in the manufacturing sector for six African countries, Bigsten et al. (2003) estimate the extent of credit constraints among firms of various sizes and find that small firms appear to be more credit constrained than large firms. Furthermore, Manova (2013) provides evidence of channels through which credit constraints distort aggregate trade flows.

To explore whether credit constraints are responsible for the observed decline in exports

due to GSP expiration, I interact the triple-interaction term in equation (1) with dummies for country-product pairs of different size in terms of the value of exports. Based on the values of exports in 2010, I create dummies for each quartile and treat zero-valued observations as a separate category. As previous research has shown, credit constraints are more binding for small firms, hence the decline in exports is expected to be largest for exporters in the first quartile. In addition to credit constraints, exports from GSP eligible countries may decline due to uncertainty stemming from both the duration of expiration and the retroactive nature of renewal, thus we might observe drop in exports from countries in the fourth quartile as well. This could indirectly imply that both credit constraints and trade policy uncertainty are responsible for the observed decline in exports from developing countries.

The results reported in Table 7 suggest that the decline in exports can be attributed to both credit constraints and trade policy uncertainty. Small exporters (first quartile) experience 89 percent drop in their exports to the US due to GSP expiration. This effect is decreasing in the size of the exporter, with the largest exporters (fourth quartile) experiencing only 32 percent drop. Assuming that largest exporters are less credit constrained, this decline may be attributed to the uncertainty about the future of the program.

I conduct several robustness checks. In the first step, I examine the robustness of results against alternatively defined control and treatment groups. I first restrict the sample to non-OECD countries to make the control group (non-GSP countries) more comparable to the treatment group (GSP countries). The composition of exports from GSP countries is likely to resemble that from other non-GSP developing countries and to differ substantially from more developed countries. The results are reported in Column 2 of Table 8, with the benchmark results repeated in Column 1. The estimated impact of GSP expiration is similar for all product categories: slightly larger (in absolute terms) for agriculture and fuel/minerals and slightly smaller for manufactures and textiles/clothing (though imprecisely measured for the latter).

Table 7: The GSP Expiration Effect for Exporters of Different Size

Dependent Variable	$lnExports$
Sample	Full
Method	Triple Differences
Marginal effect	
First quartile	-88.7%
Second quartile	-78.6%
Third quartile	-47.4%
Fourth quartile	-32.2%
Expired × Country × Product Interaction	
Zero-valued observations	0.063***
	(0.009)
First quartile	-2.178***
	(0.101)
Second quartile	-1.541***
	(0.087)
Third quartile	-0.642***
	(0.069)
Fourth quartile	-0.389***
	(0.062)
Observations	1,955,085
Number of fixed effects	661,847

Notes: Standard errors in parentheses are robust to arbitrary heteroskedasticity. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively. Regressions include country-product, country-year and product-year interactive fixed effects.

I then explicitly control for a differential treatment of other GSP eligible countries that qualify for an alternative trade preference program in addition to GSP. These countries were assumed GSP ineligible throughout the paper because their preferential market access terms remained effectively the same after the expiration of GSP. The specification now includes four terms for countries that are eligible for GSP only (interacted with four product categories) and additional four terms for countries qualifying for alternative programs. The results reported in Column 3 of Table 8 suggest that the benchmark treatment group experienced similar drop in exports for agricultural and manufacturing products with drop

Table 8: Robustness Checks: Control and Treatment Group; Redirected Trade; Ad Valorem Tariff Rates

Dependent Variable	$lnExports$	$lnExports$	$lnExports$	$lnExportsUS$	$lnExportsEU$	$lnExports$
Sample	Full	Non-OECD	GSP eligible countries	EU trade data		Products with ad valorem tariffs
Method	(1) Benchmark	(2) Control Group	(3) Treatment Group	(4) Benchmark	(5) Redirected Trade	(6) Ad Valorem Tariff
Marginal effect						
Agriculture	-4.67%	-5.26%	-4.45%	-5.30%	-0.38%	-5.98%
Fuels and Minerals	-0.71%	-2.58%	0.96%	-3.54%	-1.51%	-1.08%
Textiles and Clothing	-9.03%	-8.23%	-9.24%	-7.91%	-7.60%	-8.14%
Manufacturing	-2.63%	-2.49%	-3.56%	-2.07%	-0.19%	-2.58%
Expired × Country × Product Interaction						
Agriculture	-0.048***	-0.054***	-0.046***	-0.055***	-0.004	-0.062***
	(0.015)	(0.015)	(0.016)	(0.015)	(0.019)	(0.020)
Fuels and Minerals	-0.007	-0.026	0.009	-0.036	-0.015	-0.011
	(0.026)	(0.024)	(0.031)	(0.025)	(0.034)	(0.027)
Textiles and Clothing	-0.095*	-0.086	-0.097	-0.082	-0.079	-0.085
	(0.055)	(0.055)	(0.063)	(0.055)	(0.059)	(0.056)
Manufacturing	-0.027***	-0.025***	-0.036***	-0.021**	-0.002	-0.026**
	(0.009)	(0.009)	(0.011)	(0.009)	(0.012)	(0.010)
Observations	1,955,085	1,754,808	1,955,085	1,622,913	1,622,913	1,728,765
Number of fixed effects	661,847	595,025	661,847	556,753	556,753	585,303

Notes: Standard errors in parentheses are robust to arbitrary heteroskedasticity. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively. All regressions include country-product, country-year and product-year interactive fixed effects. Column 1 reports the benchmark estimates from Table 5. Column 2 excludes OECD countries. Column 3 includes additional controls for GSP eligible countries that also qualify for other trade preference programs. Columns 4 and 5 use country-product pairs for which EU trade data are available. Column 4 re-estimates the benchmark specification for this subset of country-product pairs. In Column 5 the dependent variable is log exports to the EU. Column 6 restricts the sample to products that face ad valorem tariff rates.

in textiles/clothing exports being imprecisely measured.[12]

Next, I explore the possibility of trade diversion from the US to the rest of the world due to GSP expiration. An important question of interest is whether the decreased exports to the US resulted in trade diversion to the rest of the world. Consequently, I explore whether the GSP expiration had any noticeable impact on exports from US GSP eligible countries to the 27 countries of the EU, another top export destination for developing countries. Using trade data from Eurostat for years 2010-2012, equation (1) is re-estimated with the dependent variable defined as exports to the EU. If US GSP expiration results in a trade diversion from the US to EU, then the coefficients of interest are expected to be positive.

The EU data at the HS 6-digit level are comparable to the US data, except for certain countries and product categories that have been dropped from the analysis. For comparability, I report the US results estimated for this sample of country-product pairs in Column 4 of Table 8, followed by the EU results in Column 5. The US results are similar to the ones reported earlier; the agriculture effect is slightly larger (in absolute terms), while the effect on manufactures is smaller, and the textiles/clothing effect is now insignificant. The impact of GSP expiration on exports to the EU is not statistically different from zero across all product categories, suggesting that the export responses reported earlier have not resulted in trade diversion to the EU.

The final set of tests examines potential data concerns, omitting products facing specific and combined tariff rates and re-estimating the benchmark results at the HS 8-digit level. I restrict the sample to products that face ad valorem tariff rates to examine whether my results are robust to omitting the ad valorem equivalent of any specific and combined tariffs. The estimates from this specification reported in Column 6 of Table 8 are qualitatively and quantitatively consistent with the benchmark results, with the exception of the point estimate on textiles and clothing which is now imprecisely measured.

[12]Although not reported here, the coefficient estimates on interaction terms for countries eligible for alternative trade preference programs are imprecisely measured for agricultural and textile/clothing products. However, their manufacturing exports drop by 2.9 percent (statistically significant at the 1 percent level), while fuel/minerals exports increase by 4.8 percent (statistically significant at the 10 percent level).

Lastly, since the GSP eligibility is defined at the HS 8-digit level (the same level of aggregation at which tariff rates are set), the aggregation of data up to HS 6-digit level may introduce a bias. To check for this possibility, I re-estimate benchmark results reported in Tables 2 and 3, and report both sets of estimates in the Appendix Table A5. When a three-way balanced panel is used, the drop in exports is slightly smaller at the HS 8-digit level; GSP expiration is associated with 2.2 percent drop in exports. This pattern, however, is reversed when a two-way balanced panel is employed. In particular, the estimated impact of GSP expiration is slightly larger in magnitude (-20.4 percent) at the HS 8-digit level.

6 Conclusion

This paper examines the impact of GSP expiration in 2011 on exports from developing countries to the US. Using a balanced panel of all US trading partners and all dutiable products, I employ the triple-differences approach to control for country-product specific general levels of exports, and country- and product-specific trends in exports. The findings suggest that the GSP expiration had a significant impact on exports, lowering them by an average of 3 percent across all GSP products, including a 5 percent drop in agricultural products and a larger 9 percent drop in textiles and clothing. In addition to lower levels of exports, I also find that the GSP expiration led to a narrower range of products being exported to the US. In particular, the probability of exporting textiles and clothing products decreases by 1.25 percentage points compared to the average probability of 2.6 percent for GSP countries exporting these products prior to the expiration. The GSP expiration had a disproportionate impact on products facing higher tariffs, with the highest tariff group (15% and above) experiencing 11 percent drop in exports, and on exporters of different size. Both small and large exporters experienced decline in exports, with small exporters being hit the hardest. The latter indicates that both credit constraints and the uncertainty about the GSP renewal or the duration of expiration could explain the observed decline in exports from developing countries. The findings suggest that even though the duties

paid during the period of GSP expiration may ultimately be reimbursed to exporters after the GSP is retroactively renewed, the GSP preferences matter for exporters in accessing the US market and they are less likely to continue exporting in the absence of preferential treatment.

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Appendix

Table A1: GSP Implementation and Expiration

Effective Date	Date Expired	Period of Expiration	No of Days Expired
Jan 2, 1975	Jan 2, 1985	...	
Oct 30, 1984	Jul 4, 1993	Jul 5, 1993 - Aug 10, 1993	36
Aug 10, 1993	Sep 30, 1994	Oct 1, 1994 - Dec 8, 1994	68
Dec 8, 1994	Jul 31, 1995	Aug 1, 1995 - Oct 1, 1996	427
Oct 1, 1996	May 31, 1997	Jun 1, 1997 - Aug 5, 1997	65
Aug 5, 1997	Jun 30, 1998	Jul 1, 1998 - Oct 21, 1998	112
Oct 21, 1998	Jun 30, 1999	Jul 1, 1999 - Dec 17, 1999	169
Dec 17, 1999	Sep 30, 2001	Oct 1, 2001 - Aug 6, 2002	309
Aug 6, 2002	Dec 31, 2006	...	
Dec 31, 2006	Dec 31, 2008	...	
Oct 16, 2008	Dec 31, 2009	...	
Dec 28, 2009	Dec 31, 2010	Jan 1, 2011 - Nov 5, 2011	308
Nov 5, 2011	Jul 31, 2013		

Table A2: The GSP Expiration Effect for LDBCs and DBCs (two-way balanced panel)

Dependent Variable	$lnExports$
Expired × DBC × DBC Product	-0.213***
	(0.071)
Expired × LDBC × LDBC Product	-0.161
	(0.233)
Marginal effect	
DBC	-19.2%
LDBC	-14.9%
Observations	331,137

Notes: The sample is restricted to products that are observed being exported at least once during the sample period by each country. Standard errors in parentheses are robust to arbitrary heteroskedasticity. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively. Regressions include country-product, country-year and product-year interactive fixed effects.

Table A3: The GSP Expiration Effect for Different Product Categories (two-way balanced panel)

Dependent Variable	$lnExports$
Expired × Country × Product Interaction	
Agriculture	-0.406***
	(0.143)
Fuels and Minerals	-0.338
	(0.309)
Textiles and Clothing	-0.441*
	(0.260)
Manufacturing	-0.171**
	(0.073)
Marginal effect	
Agriculture	-33.4%
Fuels and Minerals	-28.7%
Textiles and Clothing	-35.7%
Manufacturing	-15.7%
Observations	331,137

Notes: The sample is restricted to products that are observed being exported at least once during the sample period by each country. Standard errors in parentheses are robust to arbitrary heteroskedasticity. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively. Regressions include country-product, country-year and product-year interactive fixed effects.

Table A4: The GSP Expiration Effect for Different Tariff Groups (two-way balanced panel)

Dependent Variable	$lnExports$
Expired × Country × Product	
× Tariff Group Interaction	
0-3%	-0.171*
	(0.091)
3-6%	-0.203**
	(0.087)
6-10%	-0.315**
	(0.143)
10-15%	-0.502
	(0.314)
15+ %	-1.771
	(1.466)
Marginal effect	
0-3%	-15.7%
3-6%	-18.4%
6-10%	-27.0%
10-15%	-39.5%
15+ %	-83.0%
Observations	331,137

Notes: The sample is restricted to products that are observed being exported at least once during the sample period by each country. Standard errors in parentheses are robust to arbitrary heteroskedasticity. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively. Regressions include country-product, country-year and product-year interactive fixed effects.

Table A5: Benchmark Results for the GSP Expiration Effect at the HS 6- and 8-digit levels

Dependent Variable	$lnExports$	$lnExports$	Export Dummy	Export Dummy
Level of Aggregation	HS 6-digit	HS 8-digit	HS 6-digit	HS 8-digit
Method	Triple Diff	Triple Diff	Triple Diff	Triple Diff
	(1)	(2)	(3)	(4)
Panel A: Three-way balanced panel				
Marginal effect	-2.88%	-2.22%	-0.29%	-0.18%
Expired × Country × Product	-0.029***	-0.022***	-0.003***	-0.002***
	(0.009)	(0.005)	(0.001)	(0.0006)
Observations	1,955,085	3,983,355	1,955,085	3,983,355
Panel B: Two-way balanced panel				
Marginal effect	-18.9%	-20.4%		
Expired × Country × Product	-0.209***	-0.228***		
	(0.069)	(0.056)		
Observations	331,137	501,942		

Notes: Panel A employs a three-way balanced panel, and Panel B restricts the sample to products that are observed being exported at least once during the sample period by each country (two-way balanced panel). Columns 1 and 3 use the data aggregated to the HS 6-digit level and replicate the results from Tables 2 and 3. Columns 2 and 4 use the data defined at the HS 8-digit level. Standard errors in parentheses are robust to arbitrary heteroskedasticity. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively. Regressions include country-product, country-year and product-year interactive fixed effects.

Table A6: Country Specific Effects

Country	Agriculture	Fuel and Minerals	Textiles and Clothing	Manufacturing
Afghanistan	-0.0655	0.0206	-0.141	-0.0084
Albania	-0.0856	-0.0273	-0.268	-0.0517
Algeria	-0.0577	0.0214	**-0.0957***	**-0.0529***
Anguilla	-0.0345	0.0101	-0.0572	-0.0064
Argentina	-0.13	0.176	-0.748	0.0286
Armenia	-0.128	0.0272	0.331	0.0016
Azerbaijan	0.0814	0.0262	-0.218	-0.0304
Bangladesh	0.0292	-0.0441	**-0.617***	-0.115
Bhutan	-0.0441	0.0433	0.113	-0.0348
Bolivia	0.0606	**0.325***	-0.44	0.0487
Bosnia-Hercegovina	**-0.252****	0.103	-0.318	**-0.109***
British Indian Ocean Territory	-0.0292	**0.058****	-0.0511	**0.0416***
Brazil	0.176	-0.649	0.196	-0.157
Cambodia	**-0.175****	-0.0648	-0.648	**-0.174****
Central African Republic	0.0122	**0.0568****	-0.165	0.0235
Christmas Island	-0.0104	**0.076****	-0.188	0.0212
Cocos Island	0.0291	**0.0881****	-0.377	-0.0127
Congo (DROC)	-0.0189	0.164	-0.189	0.0157
Cook Island	-0.0241	**0.0854*****	-0.0181	-0.0023
Cote d'Ivoire	**-0.184****	-0.0206	0.367	**-0.105****
Egypt	**-0.448****	-0.14	0.31	0.0269
Eritrea	-0.0476	**0.0553****	-0.0544	0.0043
Fiji	-0.0769	-0.0641	0.11	**-0.101****
Georgia	-0.122	0.157	-0.128	0.0479
Gibraltar	-0.0357	**0.0519***	-0.059	-0.0008
Guinea	-0.0157	-0.0342	-0.169	-0.0045
India	-0.215	-0.227	-0.996	0.0314
Indonesia	-0.298	-0.212	-0.628	-0.0686
Iraq	0.025	**0.0569***	-0.321	**-0.153*****
Kazakhstan	-0.0055	-0.0523	-0.131	0.0565
Kyrgyzstan	**-0.114***	-0.0967	-0.191	-0.0292
Lebanon	0.104	0.0291	**-0.775****	0.0127
Macedonia	-0.0506	0.033	**0.639***	-0.0258
Madagascar	-0.0933	-0.0558	-0.417	-0.0624
Maldive Island	**-0.0458***	**0.0421***	-0.0702	**-0.0243***
Moldova	-0.103	**0.0757***	0.508	0.0273
Mongolia	-0.076	0.0577	0.488	-0.0042
Montenegro	0.0146	0.322	0.205	0.0041
Nepal	-0.0152	0.149	0.313	0.0716
Niger	0.0372	**0.102*****	-0.124	**0.0741***
Pakistan	0.156	-0.297	0.603	-0.0043
Papua New Guinea	-0.0214	-0.0002	**-0.144****	**-0.0745*****
Paraguay	-0.0587	-0.0148	**-0.201****	**-0.114****
Philippines	-0.114	-0.207	0.0766	-0.152
Russia	-0.157	-0.159	0.281	-0.0725
Samoa	-0.0006	**0.0752****	-0.212	**0.06***
Serbia	-0.0519	-0.202	0.0492	**-0.154****
Solomon Island	-0.0379	0.0429	-0.07	-0.0161
Sri Lanka	-0.148	0.0116	0.33	**-0.125***
St Helena	-0.0266	**0.0605****	-0.048	0.0081
Suriname	0.0096	-0.0156	0.225	0.0447
Thailand	0.157	-0.117	0.426	-0.0205
Tokelau Island	0.0699	-0.0947	**-0.818***	0.0351
Tonga	-0.0158	**0.0473***	-0.0634	-0.0102
Tunisia	-0.124	-0.0379	0.76	0.0083
Turkey	-0.145	-0.545	-0.383	**-0.287****
Turks & Caicos Island	-0.054	0.0085	0.169	-0.0072
Ukraine	-0.109	**-0.507*****	**-0.907****	-0.0635
Uruguay	0.108	0.0367	**-0.653***	-0.0395
Uzbekistan	-0.0519	-0.0163	0.322	**-0.0872****
Vanuatu	-0.0247	**0.0578****	-0.0523	0.0082
Venezuela	-0.0097	0.236	-0.122	0.123
West Bank	0.0216	**0.0646****	-0.155	0.0099
Yemen	0.0021	**0.271***	-0.0173	**0.0482***
Zimbabwe	-0.0464	0.0476	-0.404	-0.0065
Average	**-0.048**	**-0.008**	**-0.093**	**-0.026**

Notes: The table reports triple-difference coefficient estimates of individual country effects for each product category.
***, ** and * indicate significance at the 1%, 5% and 10% level, respectively.