# Rules of Origin, LDC Graduation and the Re-sourcing of Japan's Apparel Imports: Evidence from Bangladesh, 2005–2025

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**Abstract**

Japan buys almost all of its clothing abroad, and for two decades most of it came from China. Between 2005 and 2025 China's share of Japan's apparel imports (HS 61 and 62, by value) fell from 82.4% to 47.3%, while Bangladesh rose from 0.1% to 5.6%. This paper asks how much of Bangladesh's gain came from Japan's own trade policy, in particular the relaxation of the rules of origin for knitted apparel under Japan's preference scheme for least developed countries (LDCs), from three processing stages to two in April 2011 and to a single stage in April 2015. Woven apparel was already under a single-stage rule, so it provides a within-exporter control. Using UN Comtrade data on Japan's imports from eleven suppliers and the United States market as a benchmark where these suppliers receive no apparel preference, I find that the knit-to-woven ratio of Bangladesh's sales to Japan rose from 0.27 in 2005 to 1.18 in 2019, while the same ratio in its sales to the United States stayed between 0.34 and 0.40. Triple-difference estimates put the relative gain in knitted apparel for Bangladesh at roughly 38% under the two-stage rule and 71% under the single-stage rule, but with eleven exporters the permutation p-values are around 0.2, and part of the shift began in 2009–2010, before the first reform. The paper then prices what Bangladesh's LDC graduation, now deferred to November 2029, puts at stake: at Japan's average clothing tariff of 8.9%, the duty on 2025 volumes would be about US$122 million a year, and plausible trade elasticities imply a 23–45% fall in Bangladesh's apparel sales to Japan if neither the extended LDC transition nor the Japan–Bangladesh EPA signed in February 2026 applied. The EPA's change-of-chapter rule for HS 61 and 62 locks in the single-stage standard that the evidence ties to Japan's re-sourcing.

**Keywords:** rules of origin; generalized system of preferences; LDC graduation; apparel; Japan–Bangladesh EPA; China plus one

**JEL codes:** F13, F14, F15, O24

## 1. Introduction

Japan produces about one percent of the clothing its households buy. METI reports that import penetration in apparel was 98.5% by quantity in 2022 (METI, 2024). The question of where Japan's clothes come from is therefore a question about Japanese trade policy and about the sourcing decisions of Japanese retailers, and for a long time the answer was simple. In 2005, the year the Multi-Fibre Arrangement quotas ended, China

supplied 82.4% of the value of Japan's imports of knitted and woven apparel. By 2025 that share had fallen to 47.3%. Viet Nam took the largest part of the difference, rising from 2.8% to 19.3%. Three LDCs, Bangladesh, Cambodia and Myanmar, together went from 0.4% to 17.0%.

Bangladesh's part in this is the subject of this paper. Its apparel sales to Japan grew from US$22 million in 2005 to US$1.37 billion in 2025, a sixty-fold rise, and JETRO (2025) reports that Bangladesh has shipped more than one billion dollars of garments to Japan in every year since 2018. The headline explanation offered in Japanese business reporting is "China plus one": rising wages in China and a wish to spread supply risk pushed Japanese buyers to look elsewhere (JETRO, 2025). That story is true as far as it goes, but it does not explain why the move toward Bangladesh was so much stronger in knitted garments than in woven ones, and so much stronger in Japan than in the United States, where Bangladeshi garments pay full duty.

Japan changed its own rules twice in this period. Bangladesh, as an LDC, has had duty-free, quota-free access to Japan for nearly all products since April 2007 (Japan Customs, n.d.-a). Duty-free access on paper, however, depends on proving origin. Until March 2011 a knitted shirt qualified as Bangladeshi only if it went through three stages of processing within beneficiary countries, roughly from fibre to yarn to fabric to garment. Bangladesh's knitwear industry relied on imported yarn and fabric, so much of its output could not meet that test. In April 2011 Japan cut the requirement to two stages, and in April 2015 to a single stage, under which sewing imported fabric into a garment is enough (Hayakawa & Yamanouchi, 2022; Japan Customs, n.d.-b). Woven apparel (HS 62) was already under a single-stage rule before both reforms (Segawa, 2015).

That sequence gives a clean comparison. Within the same exporter and year, knitted and woven garments face the same exchange rate, the same shipping costs, the same buyer relationships and the same Bangladeshi policy. Only knitted garments saw their origin test change. If the reforms mattered, the knitted share of Bangladesh's sales to Japan should rise after 2011 and again after 2015, relative to the knitted share of exporters that never had LDC preferences to use. A second comparison holds the exporter fixed but changes the market. Bangladesh sells far more clothing to the United States than to Japan and gets no apparel preference there, so the knit-to-woven mix of its US sales shows what happened to its supply side without Japan's rule change.

The answer from both comparisons points the same way, but the evidence is weaker than the raw numbers suggest. The knitted share of Bangladesh's sales to Japan rose from 21.5% in 2005 to 51.4% in 2016, and its knit-to-woven ratio in Japan more than quadrupled between 2005 and 2019, while in the US market it hardly moved. Formal estimates for Bangladesh give relative gains of about 38% in the two-stage period and 71% in the single-stage period. With eleven supplying countries, however, only a handful of units carry the identification, and permutation tests that reassign "LDC" status at random rank Bangladesh's estimate second of nine. The rise also started in 2009 and 2010, before the first reform took effect. I read the evidence as showing that the origin rules mattered for the composition of Bangladesh's sales to Japan, without being able to say precisely how much.

The policy question this raises is current. Bangladesh was due to leave the LDC category on 24 November 2026. The UN General Assembly deferred that date to 24 November 2029 on 29 October 2026 (Giri, 2026; Outlook India, 2026). Japan amended its preference rules in 2025 so that a graduated LDC can keep LDC treatment for up to three years (Ministry of Finance Japan, 2024; MOFA, 2026a). Japan and Bangladesh also signed an Economic Partnership Agreement (EPA) on 6 February 2026, Japan's first bilateral EPA with an

LDC, under which Japan's tariffs on textile products are removed on entry into force (MOFA, 2026b; MOFA et al., 2026). Its product-specific rule for chapters 61 and 62 is a change of chapter, which means a single transformation. The agreement was not yet in force at the end of October 2026 (MOFA, 2026c).

Section 7 puts numbers on what is at stake. If Bangladesh's garments paid Japan's average applied clothing tariff of 8.9% (WTO, 2026), the duty bill on 2025 volumes would be about US$122 million a year. With trade elasticities between 3 and 7, the implied fall in Bangladesh's apparel sales to Japan ranges from about a fifth to about a half. For Japanese importers that would mean replacing a supplier that now provides about a tenth of their non-Chinese apparel.

The paper builds on Hayakawa (2023), who studies the same 2015 reform and finds that it raised GSP imports from Cambodia and Myanmar and reduced the use of the ASEAN–Japan agreement, and on Hayakawa and Yamanouchi (2022), who look at Japanese knitwear producers and find that low-price domestic producers lost output after both reforms. Bangladesh is absent from the first and only an exporter in the background of the second. I add the market benchmark, a longer window that covers the post-2019 period, and the graduation arithmetic. The broader literature on origin rules, from Krueger (1993) to Conconi et al. (2018), has shown that strict rules can undo much of a preference margin. Apparel has been the clearest case: de Melo and Portugal-Pérez (2014) find that the single-transformation rule in the US African Growth and Opportunity Act raised African apparel exports by far more than the EU's double-transformation rule did, and Curran and Nadvi (2015) trace how the EU's 2011 relaxation for LDCs changed fabric sourcing in Bangladesh's woven sector. Japan's reforms are a less studied third case, run by a market whose importers are known for tight quality control and small lots.

## 2. Policy background

### *2.1 Japan's LDC preferences and the origin test for apparel*

Japan's GSP has been in place since 1971 and is now authorised until 31 March 2031 (MOFA, n.d.). It has two tiers: ordinary preferences for developing countries, and a special tier for LDCs. From 1 April 2007 the LDC tier was extended to cover about 98% of tariff lines, up from 86%, so that nearly every product from an LDC enters duty-free and quota-free (Japan Customs, n.d.-a). Apparel from LDCs was duty-free before the origin reforms discussed here. The constraint was proof of origin.

Japan's GSP origin rules are the same for LDC and non-LDC beneficiaries (Hayakawa & Yamanouchi, 2022), but in practice they mattered most for LDCs, because ordinary GSP margins on clothing were small or excluded and because the larger non-LDC suppliers either had EPAs with Japan (Viet Nam from 2009, Thailand and Indonesia from 2007–2008) or were large enough to pay the duty. For knitted apparel the rule up to March 2011 required three processing stages within beneficiary countries. In April 2011 it became two stages, so that a garment knitted to shape or cut and sewn from fabric that was itself made from yarn in a beneficiary country could qualify (Hayakawa & Yamanouchi, 2022). Contemporary Bangladeshi reporting noted that the country "was not able to fulfil the criteria of the three-stage GSP facility" before the change (Moni, 2011). From the same date, Japan also extended its donor-country-content rule to textiles, so Japanese inputs counted as originating (JETRO Dhaka, 2021).

On 1 April 2015 the rule for knitted apparel moved to a single stage. Japan Customs describes the change as a shift from "manufactured from yarns" to "manufactured from fabrics", applicable from 1 April 2015 (Japan Customs, n.d.-b). JETRO's report on the change notes that knitted garments now qualify by processing

"from fabric to clothing", as woven garments already did (Segawa, 2015). The 10% de minimis rule by weight for non-originating materials in textiles applied throughout (MOFA, n.d.).

### *2.2 Graduation, the transition window and the EPA*

Bangladesh met the graduation criteria at the UN Committee for Development Policy's triennial reviews in 2018 and 2021, and the General Assembly set 24 November 2026 as its graduation date (UN-OHRLLS, n.d.). On 29 October 2026 the Assembly adopted resolution A/81/L.8 without a vote, extending the preparatory period for Bangladesh and Nepal to 24 November 2029 (Giri, 2026; Outlook India, 2026; The Financial Express, 2026). I rely here on press reports of the adoption because the final resolution text had not been posted when this draft was written.

Japan's own rules for graduated countries changed shortly before. The Ministry of Finance's tariff reform outline for FY2025 extended the period during which a graduated LDC keeps LDC special preferences from "within one year" to "within three years" after graduation (Ministry of Finance Japan, 2024), and the implementing cabinet order, in force from 1 April 2025, created a category of countries treated as equivalent to LDCs (Japan Customs, 2025a). Japan described the change at its 2026 Trade Policy Review as allowing LDC treatment "to be extended for up to three years following graduation" (MOFA, 2026a). Taken together with the deferral, Bangladesh's LDC treatment in Japan could last until late 2032.

The EPA makes most of this a fallback. Negotiations began on 12 March 2024, agreement in principle was reached on 22 December 2025, and the agreement was signed in Tokyo on 6 February 2026 (MOFA, 2026b). Japan will remove tariffs on about 91% of its imports from Bangladesh by value, and tariffs on textile products are eliminated immediately on entry into force, replacing the LDC zero rate with a treaty zero rate (MOFA et al., 2026). The product-specific rules in Annex 2 require only a change of chapter for chapters 61 and 62, so cutting and sewing imported fabric confers origin. For Japanese importers, origin can be claimed by importer self-declaration from entry into force (MOFA et al., 2026). At the leaders' meeting of 27 October 2026 both governments "reaffirmed their commitment to the early entry into force" (MOFA, 2026c), so the agreement had been signed but not yet ratified.

## 3. Data

The trade data are annual imports by Japan (reporter code 392) of HS chapter 61 (knitted or crocheted apparel) and HS chapter 62 (apparel not knitted), from the UN Comtrade database for 2005–2025, by partner. I use eleven partners: the three LDCs that supply Japan with apparel at scale (Bangladesh, Cambodia and Myanmar) and eight non-LDC suppliers (China, Viet Nam, Indonesia, India, Pakistan, Sri Lanka, Thailand and Italy). Together they accounted for 93.8% of Japan's apparel imports in 2025. Values are in current US dollars, as reported by Japan on a CIF basis. Comtrade records the years under five successive HS editions, but chapters 61 and 62 are stable across revisions at the two-digit level. Quantities are not reported at the chapter level, so the analysis is in values only.

For the market benchmark I use the same chapters and partners from US imports (reporter 842). Myanmar is missing from US data for 2005–2012 because of US sanctions, so it drops out of the benchmark comparisons. As a check on transcription, Japan's 2024 imports from Bangladesh at the four-digit level (34 headings) add up to the chapter totals within three thousandths of a dollar, and the same holds for US imports

from Bangladesh in 2024. Tariff information comes from Japan's customs tariff schedule and the WTO's World Tariff Profiles (WTO, 2026), in which Japan's MFN applied clothing tariffs average 8.9% with a maximum of 13% and only 2.1% of lines duty-free.

## 4. How Japan's sourcing changed

Figure 1 shows the shares of five suppliers in Japan's apparel imports on a log scale, with the two reforms marked. China's share held above 80% until 2011 and then fell steadily. Japan's total apparel import bill peaked at US$31.1 billion in 2011 and was US$24.3 billion in 2025, so the shift is a redistribution of a roughly flat, then shrinking, dollar total rather than growth at the margin.

**Table 1.** Shares of Japan's apparel imports (HS 61 + 62, % of value)

| Supplier | 2005 | 2010 | 2011 | 2015 | 2019 | 2025 |
|---|---|---|---|---|---|---|
| China | 82.43 | 83.53 | 81.05 | 67.98 | 56.79 | 47.28 |
| Viet Nam | 2.77 | 4.61 | 5.69 | 10.53 | 15.43 | 19.28 |
| Bangladesh | 0.11 | 0.78 | 1.12 | 2.85 | 4.18 | 5.63 |
| Cambodia | 0.04 | 0.33 | 0.50 | 2.38 | 4.10 | 5.97 |
| Myanmar | 0.25 | 0.72 | 1.11 | 2.16 | 3.70 | 5.43 |
| Japan's total imports (US$ bn) | 21.17 | | 31.11 | 26.85 | 27.97 | 24.28 |

Source: UN Comtrade, Japan as reporter; author's calculations.

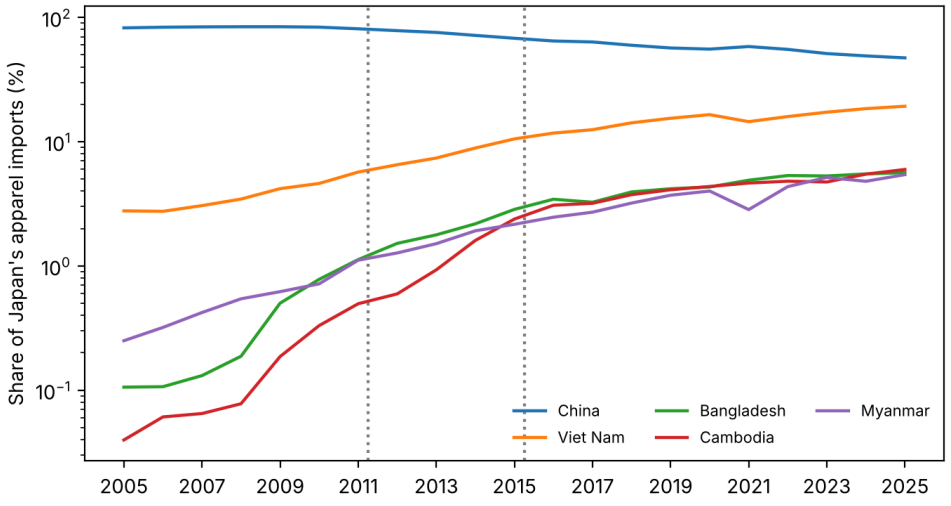



*Figure 1. Shares of Japan's apparel imports, 2005–2025 (log scale). Dotted lines mark the April 2011 and April 2015 origin reforms for knitted apparel.*

Bangladesh's growth in Japan was uneven across the two chapters. In 2005 it sold US$4.8 million of knitted and US$17.6 million of woven garments to Japan, so knitwear was 21.5% of the total. By 2010 knitwear had reached US$69.7 million and 35.4% of the total, and by 2016 it was the larger chapter, at 51.4%. It has stayed close to half since. In the US market the knitted share of Bangladesh's sales barely moved over the same years: the knit-to-woven ratio was 0.35 in 2005, 0.34 in 2014 and 0.40 in 2019, before rising to 0.57 in 2025 (Table 2). In Japan the same ratio went from 0.27 to 1.18 between 2005 and 2019.

**Table 2.** Knit-to-woven ratio (HS 61 / HS 62) in Bangladesh's apparel sales to Japan and to the United States

| Market | 2005 | 2010 | 2014 | 2016 | 2019 | 2025 |
|---|---|---|---|---|---|---|
| Japan | 0.274 | 0.548 | 0.798 | 1.059 | 1.179 | 0.974 |
| United States | 0.352 | 0.360 | 0.344 | 0.365 | 0.397 | 0.568 |

Source: UN Comtrade, Japan and the United States as reporters; author's calculations.

This divergence is the core fact of the paper. Bangladesh's garment industry is famous for knitwear in Europe, where the EU relaxed its own LDC origin rules in January 2011, and for woven trousers and shirts in the US, where there is no preference to use. Its sales to Japan looked like its US sales in 2005 and like its EU sales by 2016.

A caution comes from the timing. The jump in Bangladesh's knit sales to Japan began in 2009, when they more than quadrupled from US$12.1 million to US$53.0 million, two years before the first reform. The global financial crisis and the yen's appreciation in 2009–2011 are candidate explanations that have nothing to do with origin rules, and so is any early move by individual Japanese retailers into Dhaka that the aggregate data cannot see. Some of the early rise may also reflect anticipation, since the 2011 change was discussed in advance. The estimates below treat the pre-2011 years as the baseline, so the early rise works against finding an effect.

## 5. Empirical approach

Let $V_{ckt}$ denote Japan's imports from country $c$ in chapter $k \in \{61, 62\}$ in year $t$. The main specification is a Poisson pseudo-maximum-likelihood (PPML) regression in the spirit of Santos Silva and Tenreyro (2006):

$$V_{ckt} = \exp\left(\beta_2 \, LDC_c \times Knit_k \times Two_t + \beta_1 \, LDC_c \times Knit_k \times One_t + \alpha_{ct} + \gamma_{ck} + \delta_{kt}\right) \varepsilon_{ckt} \qquad (1)$$

where $LDC_c$ marks Bangladesh, Cambodia and Myanmar, $Knit_k$ marks chapter 61, $Two_t$ equals one in 2011–2014 and $One_t$ equals one from 2015. The exporter-year effects $\alpha_{ct}$ absorb everything that moves an exporter's total sales to Japan in a given year, including its exchange rate, wages, political shocks such as Myanmar's sanctions relief, and its overall relationship with Japanese buyers. The exporter-chapter effects $\gamma_{ck}$ absorb each country's long-run specialisation in knit or woven. The chapter-year effects $\delta_{kt}$ absorb Japanese demand shifts between knit and woven garments. The coefficients $\beta_2$ and $\beta_1$ are triple differences, the same logic used by Frazer and Van Biesebroeck (2010) for AGOA.

With two chapters per exporter-year, the Poisson likelihood conditional on each exporter-year total is binomial in the knitted share, so equation (1) can be estimated exactly as a binomial regression of the knitted share on exporter effects, year effects and the treatment terms, weighted by the exporter-year total. I estimate it that way, which avoids convergence problems with several hundred dummies in a sample of 462 observations. Standard errors are clustered by exporter.

Clustered standard errors are unreliable with eleven clusters and three treated units. For inference I therefore rely mainly on randomisation: I re-estimate the ratio version of the model (the log of the knit-to-woven ratio regressed on exporter and year effects and the treatment terms) for every one of the 165 ways to call three of the eleven exporters "LDCs", and report where the actual estimate falls. For Bangladesh alone I do the same with one treated unit among nine (Cambodia and Myanmar dropped).

The market benchmark replaces the dependent variable with the difference between the log knit-to-woven ratio of an exporter's sales to Japan and the same ratio in its sales to the United States:

$$\Delta_{ct} = \ln \frac{V^{JP}_{c,61,t}}{V^{JP}_{c,62,t}} - \ln \frac{V^{US}_{c,61,t}}{V^{US}_{c,62,t}} = \theta_2 D_c Two_t + \theta_1 D_c One_t + \mu_c + \lambda_t + u_{ct} \qquad (2)$$

Exporter-specific shifts in the knit-woven mix of supply, such as new knitting capacity in Bangladesh, cancel out of $\Delta_{ct}$ because they affect both markets. What remains is the part of the shift specific to Japan. Two facts about the US market support its use here: none of these exporters received US apparel preferences in the period, and US import data are measured independently of Japan's.

Finally, an event-study version of equation (1) replaces the two period dummies with a separate $LDC \times Knit$ coefficient for each year, using 2010 as the base year.

## 6. Results

### *6.1 Main estimates*

Table 3 reports the estimates. In the pooled LDC specification the two-stage period coefficient is 0.30 and the single-stage coefficient is 0.85, which correspond to relative gains in knitwear of 35% and 134%. Neither is precise, and the permutation p-values are 0.22 and 0.21: about one in five random groups of three exporters shows an equal or larger knit shift. Dropping Myanmar, whose apparel trade with Japan grew from almost nothing after 2012 for reasons unrelated to origin rules, lowers the coefficients to 0.03 and 0.32.

**Table 3.** Triple-difference estimates, Japan's apparel imports, 2005–2025

| Specification | Two-stage period (2011–14) | Single-stage period (2015–25) | Inference |
|---|---|---|---|
| (1) PPML, LDCs = BGD, KHM, MMR | 0.296 (0.309) [+34.5%] | 0.850 (0.551) [+134.0%] | RI p = 0.22 / 0.21 (165 assignments) |
| (2) PPML, Bangladesh only | 0.320 [+37.8%] | 0.534 [+70.6%] | RI rank 2 of 9 for single-stage |
| (3) PPML, LDCs without Myanmar | 0.027 (0.325) [+2.7%] | 0.318 (0.258) [+37.5%] | |
| (4) OLS, log knit/woven ratio, LDCs | 0.759 (1.240) | 1.435 (1.678) | |
| (5) Japan minus US ratio, BGD + KHM | −0.371 (1.014) | −0.378 (0.786) | |
| (6) Japan minus US ratio, Bangladesh only | 0.867 (0.167) | 0.545 (0.253) | Rank 3 of 9 |

Notes: Coefficients on LDC × knit × period. Standard errors clustered by exporter in parentheses. In rows (2) and (6) the clustered standard errors rest on a single treated cluster and are not reported for row (2); the permutation rank is the guide. Percentages in brackets are $100\left(e^{\beta}-1\right)$. 462 observations (11 exporters × 2 chapters × 21 years) in rows (1) and (4); 378 in row (2); 420 in row (3). Rows (5) and (6) exclude Myanmar (no US data before 2013). RI: randomisation inference.

For Bangladesh on its own, the coefficients are 0.32 and 0.53, relative gains of 38% and 71%. Of the nine exporters that could be labelled "treated" in this sample, only one shows a larger single-stage shift than Bangladesh. The market benchmark points the same way. The Japan-minus-US knit ratio for Bangladesh

rose by 0.87 log points in the two-stage period and by 0.55 in the single-stage period relative to 2005–2010. Again only two other exporters (Pakistan and Viet Nam) show larger shifts in the placebo runs.

Cambodia behaves differently in the benchmark. Its knit share rose in both Japan and the US over these years, so the Japan-specific part of its shift is small, and pooling it with Bangladesh in row (5) yields negative point estimates. One reading is that Cambodia's knitwear expansion was general, while Bangladesh's was specific to markets that rewarded it. This is consistent with Hayakawa (2023), who finds that the 2015 reform moved Cambodian and Myanmar exporters from the ASEAN–Japan agreement to the GSP. For those countries, part of the reform's effect was a change in which preference was claimed rather than a change in what was shipped. Bangladesh had no alternative agreement to switch from.

### *6.2 Timing*

Figure 2 plots the event-study coefficients. They are close to zero, with some noise, from 2005 to 2008, rise to 0.21 in 2009, and then climb steadily from 0.21 in 2011 to 0.50 in 2015, 0.75 in 2016 and about 0.9 from 2018 on. There is no sharp break at either reform date. The pattern looks more like a gradual reallocation that sped up after 2011 and again after 2015 and then levelled off, which fits an industry where Japanese buyers had to qualify factories, test fabric and build order books before volumes moved. It also fits a world in which part of the change was coming anyway.

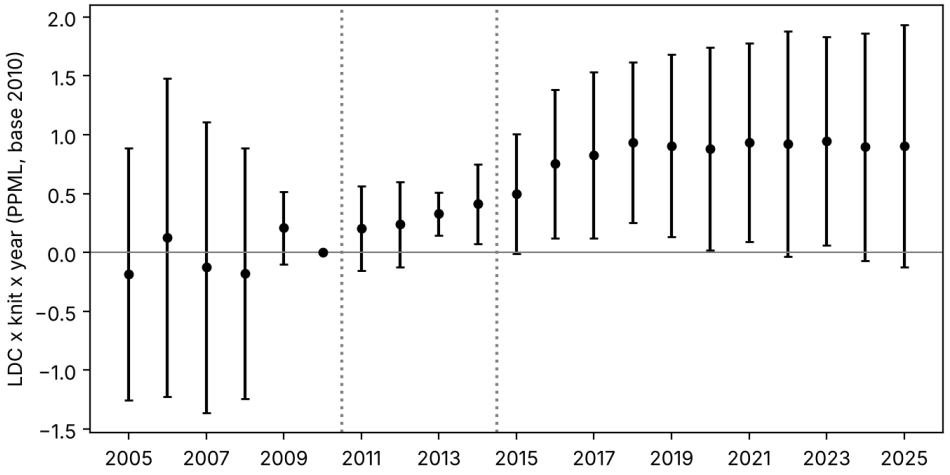



*Figure 2. Event-study coefficients, LDC × knit × year (PPML, base year 2010), with 95% confidence intervals clustered by exporter. Dotted lines separate the three-stage, two-stage and single-stage periods.*

### *6.3 Reading the evidence*

Three things can be said with some confidence. First, the composition of Bangladesh's sales to Japan changed in a way that its sales to the United States did not, and the change was concentrated in the chapter whose origin rule Japan relaxed. Second, the size of the shift is large in economic terms: in 2025 Bangladesh's knitwear sales to Japan were US$675 million, and a 38–71% relative gain would mean that roughly US$190–280 million a year of that is attributable to the reforms. Third, the statistical case is not strong. With so few exporters, a design like this one cannot rule out that Bangladesh's knit shift in Japan was one draw from the spread of exporter-specific shocks.

The pre-reform rise in 2009–2010 cuts in two directions. If it was anticipation, the estimates using 2005–2010 as baseline understate the reform effect. If it was a Japan-specific demand shock, such as a few large retailers starting to buy knitwear in Dhaka, then part of what I attribute to the reforms is that shock continuing. I cannot separate these with chapter-level data. Firm-level customs records of the kind used by Hayakawa and Yamanouchi (2022) would allow it.

## 7. What graduation and the EPA put at stake

The practical question for 2029 and beyond is what would happen to Bangladesh's apparel sales to Japan if its garments lost duty-free status. I use the simplest benchmark: a constant-elasticity import demand in which a tariff $\tau$ lowers the value of imports from Bangladesh by the factor $(1+\tau)^{-\sigma}$, where $\sigma$ is the trade elasticity. Head and Mayer (2014) report a median tariff elasticity around 5 in structural gravity studies, and I show results for 3, 5 and 7. The tariff rates are 7.4%, the WTO rate shown in Japan's schedule for many clothing lines; 8.9%, the average applied MFN rate for clothing (WTO, 2026); and 10.9%, the general rate on knitted lines such as cotton T-shirts (Japan Customs, 2025b).

**Table 4.** Counterfactual loss in Bangladesh's apparel sales to Japan without preferences (2025 base: US$1,368 million)

| Tariff | σ = 3 | σ = 5 | σ = 7 |
|---|---|---|---|
| 7.4% | −19.3% (US$264 m) | −30.0% (US$411 m) | −39.3% (US$538 m) |
| 8.9% | −22.6% (US$309 m) | −34.7% (US$475 m) | −44.9% (US$615 m) |
| 10.9% | −26.7% (US$365 m) | −40.4% (US$552 m) | −51.5% (US$705 m) |

Notes: Loss = $1-(1+\tau)^{-\sigma}$, applied to Bangladesh's 2025 HS 61 + 62 sales to Japan. Partial equilibrium; no substitution to other markets or rules-of-origin effects included.

At the 8.9% average, the duty on unchanged 2025 volumes would be about US$122 million a year. The trade losses in Table 4 are larger than the duty bill because some buyers would move orders to Viet Nam, Cambodia or back to China rather than pay it. These are partial-equilibrium numbers. They ignore that Bangladesh would also lose the single-stage origin rule if it moved to ordinary GSP treatment, which is a separate and possibly larger cost given the evidence in Section 6. Rahman and Strutt (2024) and Raihan et al. (2024) model graduation in general equilibrium for all markets together, and Bekkers and Cariola (2022) do so using actual utilisation rates. Japan is a small part of those totals, but it is the market where Bangladesh's apparel exports grew fastest.

For Japan the figures translate into supply risk. Bangladesh supplied 5.6% of Japan's apparel imports in 2025 and about 11% of non-Chinese supply. A sudden 35% fall would have to be replaced by other suppliers, most likely Viet Nam and Cambodia, at whatever extra cost Japanese buyers had avoided by placing those orders in Dhaka in the first place.

The deferral to 2029 and Japan's three-year transition push this problem to 2032 at the latest. The EPA removes it, provided it enters into force. Two features matter. Japan's textile tariffs fall to zero at once, so there is no gap when the LDC rate ends. And the change-of-chapter rule for chapters 61 and 62 is, in substance, the single-stage rule Japan adopted for knitwear in 2015. On the evidence of this paper, keeping that rule matters as much as keeping the zero tariff. An EPA with a fabric-forward rule, of the kind the US has used in its agreements, would have restored the pre-2011 constraint for Bangladesh's knitwear.

There is a less obvious effect. A GSP preference is unilateral: Japan can change or end it at any time, and it did change its origin rules twice in four years. A bound treaty rate cannot be withdrawn without renegotiation. For Japanese buyers deciding whether to qualify a new factory in Gazipur or Narayanganj, the difference between a zero rate that may lapse in 2032 and one that will not is worth something on its own. I do not attempt to measure that value here.

## 8. Limits

The data are annual, chapter-level and in values. Quantities and unit values would show whether the shift toward Bangladesh was in low-price basics or in higher-value lines, which matters for the claim that Japan's reforms helped Japanese consumers. The JETRO (2025) report that Uniqlo pays an average of US$5.41 per garment in Bangladesh suggests the former, but I have not tested it. Japan's customs data at the nine-digit level, with quantities and the preference regime claimed, would allow a direct measure of GSP utilisation by chapter and year, which is what the origin-rule argument is really about.

The control group is small and heterogeneous. China's apparel exports to Japan were shaped by its own wages and by its graduation from Japan's GSP in 2019. Viet Nam, Thailand and Indonesia had EPAs with Japan, each with its own origin rules, which may have changed knit-woven sourcing in ways that are not captured here. Italy is in the sample only as a high-price supplier with no preferences. A design with all of Japan's apparel suppliers, or with product-level variation within chapters, would give more power.

Finally, the counterfactual in Section 7 is deliberately simple. It does not model Bangladesh's own response, such as moving into backward linkages to meet stricter rules, and it treats the elasticity as known. It should be read as a range, not a forecast.

## 9. Conclusion

Japan's apparel imports have moved away from China over the past fifteen years, and part of where they went was decided in Tokyo. The relaxation of Japan's origin rules for knitted apparel in 2011 and 2015 coincided with a quadrupling of the knit-to-woven ratio in Bangladesh's sales to Japan, a shift that did not happen in its sales to the United States. The size of the shift is large; its statistical precision, with eleven supplying countries, is modest; and part of it began before the first reform.

The policy point does not depend on pinning the estimate down. Bangladesh's garments reach Japan on terms that a single tariff schedule and a single origin rule can change. Graduation, now set for November 2029, would have removed the zero tariff by 2032 at the latest. The EPA signed in February 2026 keeps both the zero tariff and the single-stage origin standard, and it turns a revocable preference into a treaty commitment. Its entry into force is the next step that matters for Japanese apparel buyers who have spent a decade building supply in Bangladesh.

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