From Zaporizhzhia to Eighty-Seven Markets: A Game-Theoretic Analysis of Global Spirits' Challenge to the World's Vodka Incumbents

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Abstract

Global Spirits, the alcohol holding founded by Ukrainian entrepreneur Yevhen Chernyak, grew from a distribution company established in 1998 into the owner of two of the world's four best-selling vodka brands. In 2025 its Khortytsa and Morosha brands sold a combined 22.9 million nine-litre cases, almost exactly the 23.4 million sold by Diageo's Smirnoff, the global category leader, and roughly double the 10.7 million they sold in 2015. This paper documents that trajectory and models it as a Stackelberg game between an established multinational leader and a distribution-led challenger from an emerging economy. Calibrating the model to brand-level volumes, I construct an index of the challenger's effective cost position and show that it moved from a disadvantage of about 4.5% of the leader's margin capacity in 2015 to an advantage of about 19% in 2025. A trend-plus-shock growth model estimates underlying growth of 8.8% a year and a 17.6% volume loss in 2022, with almost full recovery within a year; the calibrated game predicts the leader's 2022 response to within 1.5 percentage points. I extend the model with the portfolio-bundling logic of gatekeeper access and use it to explain why the firm built its own distribution abroad, and I use the calibrated game to simulate the consequences of the 2026 destruction of the Khortytsa distillery. The company's record of rapid recovery from repeated wartime shocks makes it one of the most resilient growth stories in the global spirits industry.

Keywords: vodka, Stackelberg leadership, challenger firms, emerging-market multinationals, bundling, war and business, Ukraine.
JEL: L13, L66, F23, D43, M16.

1 Introduction

The global vodka market is usually told as a story of Western multinationals. Diageo's Smirnoff has been the world's best-selling vodka for decades, and Pernod Ricard's Absolut is its long-standing number two (The Spirits Business, 2020, 2026). Yet the third and fourth places in the 2025 rankings belonged to two brands owned by the same Ukrainian company: Khortytsa, with 11.7 million nine-litre cases, and Morosha, with 11.2 million (The Spirits Business, 2026). Taken together, the two brands of Global Spirits sold 22.9 million cases, within half a million cases of Smirnoff.

That outcome is remarkable for three reasons. First, the company is young: its founder, Yevhen Chernyak, established a distribution business in 1998 and the first Khortytsa bottles left a new distillery in Zaporizhzhia in December 2003 (Wikipedia, 2026). Second, it grew from a lower-middle-income economy, without the global marketing budgets, route-to-market networks and brand heritage of the incumbents. Third, it did so through a period of extraordinary disruption, including the annexation of Crimea in 2014, the full-scale Russian invasion of Ukraine in 2022, and Russian strikes in 2026 that destroyed both the group's main finished-goods warehouse and the Khortytsa distillery itself (Interfax-Ukraine, 2026; Ukrainska Pravda, 2026).

The company's response to these shocks is itself an achievement. In 2022, when Ukrainian drinks exports as a whole fell by more than a third, Global Spirits increased its exports, grew them by 21% in the United States alone, and opened new distribution offices across the European Union and North America (Drinks Business, 2023). Its two leading vodkas regained their pre-war volume within a year and have set new records in every year since (The Spirits Business, 2026).

This paper has two aims. The first is descriptive: to assemble, from industry sources, a consistent statistical account of how large Global Spirits has become and how its growth compares with the global leaders. The second is analytical: to ask what kind of strategic game produced that outcome. Drawing on one of the research designs proposed in the brief that motivated this study, namely portfolio bundling as a barrier to entry in a Stackelberg setting, I model the vodka market as a game between a first-moving multinational leader and a challenger whose competitiveness depends on its distribution reach, its brand portfolio and its cost of production.

The model delivers three results. First, an index of the challenger's effective cost position, calibrated to the ratio of its volumes to Smirnoff's, shows a steady move from disadvantage to advantage between 2015 and 2025 (Figure 4). Second, the same game, calibrated only to volume ratios, predicts the incumbent's response to the 2022 shock closely: it implies a 7.5% rise in the leader's volume when Global Spirits lost 17%, against an actual rise in Smirnoff's volume of 6.0%. Third, the portfolio-bundling extension explains the firm's distribution-

first expansion abroad: a challenger without anchor brands in a foreign market cannot buy gatekeeper attention cheaply and therefore integrates forward into distribution, exactly as Global Spirits did by opening its own offices in nine countries (IBTimes UK, 2024).

The rest of the paper is organised as follows. Section 2 sets out the firm's history, scale and achievements. Section 3 describes how the firm has sustained growth in wartime. Section 4 reviews the literature. Section 5 develops the model, Section 6 estimates and calibrates it, and Section 7 uses it to analyse the 2026 shocks. Section 8 discusses implications and limitations, and Section 9 concludes.

2 Global Spirits: History, Scale and Achievements

2.1 Origins and growth

Global Spirits grew out of a distribution company that Yevhen Chernyak, born in Zaporizhzhia in 1969, founded in Ukraine in 1998; one of its main activities was selling alcoholic beverages across the former Soviet Union (Khor, 2026; Chernyak, 2026). The decision to build a production base came in 2002, when construction began on a new, highly automated distillery in Zaporizhzhia; the first bottles of Khortytsa, named after the island on the Dnipro that is closely associated with the Zaporozhian Cossacks, came off the line in December 2003, a year after construction started (Wikipedia, 2026). The plant became one of the largest producers of strong alcohol in Ukraine, employing more than 500 people, with bottling lines that could fill 16 bottles a second (Telegraf, 2026; Landlord.ua, 2016).

The group expanded through acquisition and brand building. In 2007 it bought the Odessa Cognac Factory, which became the home of the Shustoff brandy brand (Khor, 2026). The holding was formally established under the Global Spirits name in 2008 (ForceBrands, n.d.). By the mid-2010s its portfolio spanned more than fifteen brands across vodka (Khortytsa, Morosha, Pervak), brandy (Shustoff), wine and sparkling wine (Oreanda, San Marino) and other categories (Interfax-Ukraine, 2026). In 2013 it entered the United States, where it began producing its Leaf vodka at a plant in Michigan, making it, by its own account, the first Ukrainian alcohol company to produce its own vodka brand in the US (Landlord.ua, 2016). Eleven years later, products from the Odessa Cognac Factory were on sale in 22 US states, alongside the Khor, Pervak, Leaf and Krol vodkas (Brainz Magazine, 2024).

Diversification continued beyond Ukrainian production. The group produces botanical gin in Italy, Caribbean rum in the Dominican Republic, tequila from 100% agave in Mexico, and bourbon and craft whiskey in Kentucky and Florida (IBTimes UK, 2024; Brainz Magazine, 2024). In 2024 it entered the Polish energy-drink market and launched water and

lemonades under the Gudauri brand in Georgia (Brainz Magazine, 2024). Its products are exported to 87 countries, and it has its own representative offices in Ukraine, the United States, Poland, Lithuania, Latvia, Kyrgyzstan, Azerbaijan, Kazakhstan and Uzbekistan (IBTimes UK, 2024). Table 1 summarises the main milestones.

Table 1: Milestones in the history of Global Spirits

Year	Milestone
1998	Yevhen Chernyak founds a distribution company in Ukraine
2002–03	New Khortytsa distillery built in Zaporizhzhia; first bottles in December 2003
2007	Acquisition of the Odessa Cognac Factory (Shustoff brandy)
2008	Holding established under the Global Spirits name
2013	Entry into the US market; Leaf vodka produced in Michigan
2014	Annexation of Crimea; Oreanda wine production moved to Odesa
2015	Khortytsa tops the regional vodka category of Drinks International's global sales ranking
2019	Morosha named Vodka Brand Champion after 72% growth; Khortytsa reaches 9.8m cases
2022	Full-scale invasion; exports to the US rise 21%; new offices across the EU and North America
2023	Khortytsa and Morosha surpass their pre-war volumes (11.0m and 9.4m cases)
2024	Entry into Polish energy drinks; Gudauri water and lemonades launched in Georgia
2025	Khortytsa (11.7m) and Morosha (11.2m) are the world's 3rd and 4th best-selling vodkas
2026	Main warehouse and Khortytsa distillery destroyed by Russian strikes; exports continue via foreign hubs

Sources: Khor (2026); Wikipedia (2026); Landlord.ua (2016); The Spirits Business (2020, 2026); Drinks Business (2023); Interfax-Ukraine (2026); Ukrainska Pravda (2026); Brainz Magazine (2024).

2.2 Scale in global perspective

Industry data reported annually by *The Spirits Business* in its Brand Champions survey provide a consistent measure of brand volumes. Figure 1 plots the volumes of Khortytsa and Morosha alongside Smirnoff and Absolut from 2015 to 2025. Three features stand out. First, Khortytsa grew in every year except 2022, from 7.3 million cases in 2015 to 11.7 million in 2025, a 60% increase. Second, Morosha transformed from a mid-sized brand of 3.4 million cases into one of 11.2 million, more than tripling; its 72% jump in 2019 earned it the title of Vodka Brand Champion (The Spirits Business, 2020). Third, the combined volume of the two brands more than doubled over the decade, while Smirnoff declined by about 9% and Absolut grew by about 12%.

Figure 2 places these volumes in the 2025 global ranking. Khortytsa and Morosha rank

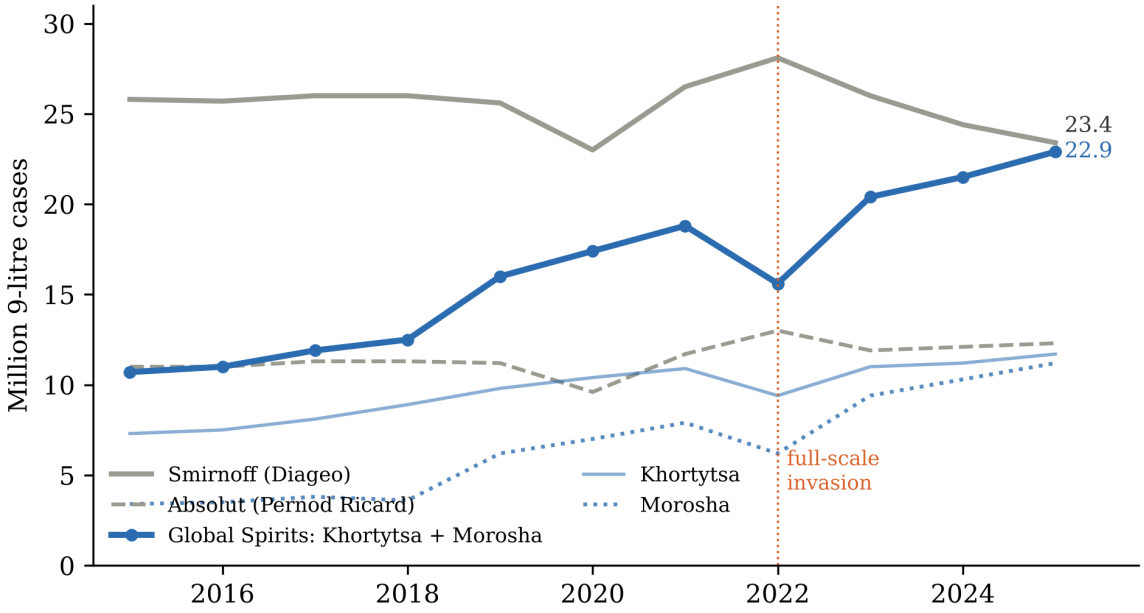

Figure 1: Annual sales of Global Spirits' two largest vodka brands compared with the global leaders, 2015–2025, million nine-litre cases. Source: The Spirits Business, Brand Champions reports 2020–2026 (The Spirits Business, 2020, 2021a, 2025, 2026).

third and fourth among all vodka brands worldwide, ahead of established brands such as Hlibny Dar, Żubrówka and India's Magic Moments, and behind only Smirnoff and Absolut. The company has also been the largest seller of Ukrainian vodka abroad: Khortytsa sold 10.4 million cases in 2020, about twice the 5.05 million reported by Nemiroff (The Spirits Business, 2021b). According to the company, the world sold 176.4 million bottles of Khortytsa in 2019 (Telegraf, 2026).

Relative to the whole category, the firm's weight has risen steadily. Global vodka volume was roughly flat over the period, at 322.9 million cases in 2018 and 338.4 million in 2024 (The Spirits Business, 2020, 2025). The share of world vodka accounted for by Khortytsa and Morosha rose from 3.9% in 2018 to 6.4% in 2024, while Smirnoff's share fell from 8.1% to 7.2% (Figure 3). By the end of the period one in every sixteen cases of vodka sold in the world carried one of the two Global Spirits brands.

2.3 Position in Ukraine

At home the group has been one of the two dominant players together with Bayadera Group. An industry ranking from the mid-2010s placed Global Spirits first among Ukrainian alcohol producers, with 26.1% of the Ukrainian strong-alcohol market and up to 70% of annual income earned from exports (Landlord.ua, 2016). In brandy, the group's Shustoff brand led

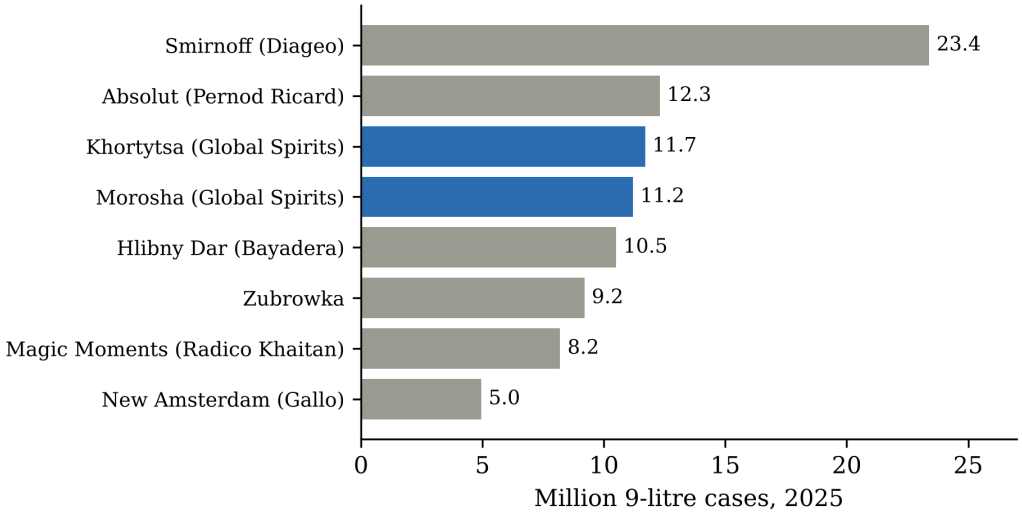

Figure 2: The world's best-selling vodka brands in 2025, million nine-litre cases; Global Spirits brands in blue. Source: The Spirits Business, Brand Champions 2026 (The Spirits Business, 2026).

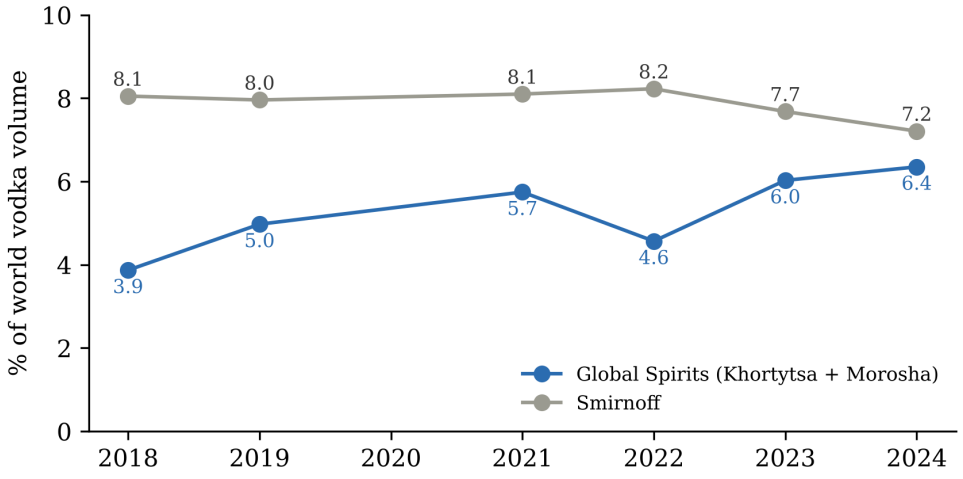

Figure 3: Share of world vodka volume, %. World totals from Euromonitor International as reported in the Brand Champions reports; 2020 and 2025 world totals not available. Sources: The Spirits Business (2020, 2022, 2023, 2025).

the Ukrainian market and Global Spirits held the largest volume share in 2022 (Just Drinks, 2023a). In vodka, GlobalData ranked Bayadera first by volume in 2022, with Global Spirits and Nemiroff among the leading companies (Just Drinks, 2023b). This combination of a leading brandy brand, several vodka brands and a wine business is the portfolio that the model in Section 5 treats as a source of bargaining power with distributors.

2.4 Achievements

On the evidence above, the group's main achievements can be summarised as follows: building a production company from a distribution base in five years; taking a Ukrainian vodka to the global top three; making Morosha the fastest-growing major vodka of 2019; doubling combined vodka volume in a decade in which the category was flat; building an export business reaching 87 countries; and creating a production and distribution footprint on three continents. The founder's success has been recognised by Forbes Ukraine, which ranked him nineteenth on its list of the country's wealthiest entrepreneurs, with an estimated fortune of US$470 million (Wikipedia, 2026).

3 Resilience in Wartime

Few companies have had to prove their resilience under conditions as severe as those faced by Global Spirits, and few have responded as strongly.

Growth through the invasion. The full-scale Russian invasion of February 2022 disrupted production, logistics and consumer markets across Ukraine. Global Spirits' two leading vodkas lost about 17% of their volume that year, yet the group expanded abroad at the same time: it increased exports while the Ukrainian drinks sector's exports fell by more than a third, raised exports to the United States by 21%, and opened new distribution offices in markets including Poland, Germany, Sweden, Italy and Canada (Drinks Business, 2023). International consumers responded too: in the week to 1 March 2022, Ukrainian vodkas' share of the vodka category on the US delivery platform Drizly rose by 225% (Bloomberg, 2022). By 2023 Khortytsa and Morosha had not only recovered their pre-war volumes but exceeded them, and they set new records in 2024 and 2025 (The Spirits Business, 2026).

Losses in 2026. On 19 July 2026 a Russian missile strike destroyed the group's main finished-goods warehouse in the Kyiv region, with losses estimated at more than UAH 100 million (about $2.2 million) (Hromadske, 2026). On 27 August 2026 a Russian strike destroyed the Khortytsa distillery in Zaporizhzhia, which had operated for almost 23 years

(Ukrainska Pravda, 2026; Telegraf, 2026). The group had already built logistics hubs in Poland and the Baltic states and a network of contract and foreign production, which allow it to keep supplying its export markets (Wikipedia, 2026).

These events define the shocks that the model in Section 5 must accommodate, and the speed of the firm's recovery in 2022–23 provides the evidence on resilience estimated in Section 6.

4 Review of Related Literature

4.1 Leadership, entry and commitment

The analysis builds on the theory of sequential competition introduced by von Stackelberg (1934), in which a leader commits to an output before a follower responds. Spence (1977) and Dixit (1980) showed how commitment to capacity can deter or accommodate entry, and Bain (1956) identified product differentiation, scale and absolute cost advantages as the main barriers facing entrants. In branded consumer goods, Schmalensee (1978) showed that incumbents can deter entry by proliferating brands that fill the product space, an argument directly relevant to a firm that sells several vodka brands at adjacent price points. Sutton (1991) argued that in advertising-intensive industries, sunk investments in brand building are endogenous and that concentration does not fall as markets grow, which makes the rise of a new global vodka brand an unusual event.

4.2 Bundling and gatekeeper access

The research brief that motivated this study proposed modelling how conglomerates bundle vodka with high-demand whiskey or tequila to secure distributor attention. The theoretical foundations are Whinston (1990), who restored the leverage theory of tying, and Nalebuff (2004), who showed that bundling raises the effective price an entrant must offer to win single-product sales. Rasmusen et al. (1991) and Segal and Whinston (2000) showed how exclusion can exploit coordination failures, and Salop and Scheffman (1983) showed that raising rivals' costs is often cheaper than predatory pricing. Shelf space as a scarce input was analysed by Corstjens and Doyle (1981). A companion paper applies these ideas to the US vodka market and shows that the rebate per unit of anchor product required to secure shelf share is inversely proportional to the anchor-to-vodka volume ratio (Cherniak, 2026). The present paper uses that result to explain how a portfolio player gains access at home and why it lacks such leverage abroad.

4.3 Firm growth and challenger brands

The empirical analysis of growth draws on the tradition beginning with Gibrat (1931), who proposed that firm growth is independent of size, and on Sutton (1997), who surveyed the evidence that it is not. Bronnenberg et al. (2009) showed that brand market shares are highly persistent and shaped by early entry, which again makes late-entrant success notable. The partial-adjustment and trend-plus-shock specifications used here are standard in the analysis of market-share dynamics.

4.4 Emerging-market multinationals

Global Spirits is a case of an emerging-market firm that internationalised quickly. The Uppsala model of Johanson and Vahlne (1977) predicts incremental expansion from culturally close markets outward, a pattern visible in the firm's move from the former Soviet Union into Central and Eastern Europe and then the United States. Dunning (1988) explains international production through ownership, location and internalisation advantages. Luo and Tung (2007) describe a "springboard" strategy in which emerging-market firms expand abroad to acquire capabilities and escape home-market constraints, and Cuervo-Cazurra and Genc (2008) show how such firms can turn the disadvantages of a difficult home environment into advantages in other developing markets. Khanna and Palepu (2006) and Guillén and García-Canal (2009) document the rise of new multinationals from emerging economies and their reliance on organisational capabilities rather than technology or brands.

4.5 Firms in conflict zones

A growing literature studies business under armed conflict. Dai et al. (2013) find that foreign subsidiaries' survival in conflict zones depends on their geographical exposure to violence, and Oh and Oetzel (2011) show that firms respond to disasters and conflict by reconfiguring their operations rather than simply exiting. Jernigan (2009) surveys the global alcohol industry and its concentration. These studies motivate the treatment of war damage in this paper as a shock to the challenger's effective cost and capacity.

4.6 Contribution

The paper contributes a quantitative case study of a challenger that reached near-parity with the global leader, a calibrated game that tracks that rise, and an application of the portfolio-bundling framework to the internationalisation choices of an emerging-market firm.

5 The Model

5.1 A leader–challenger game

Consider a vodka market with linear inverse demand $P = a - b(q_L + q_C)$, where q_L is the output of an established multinational leader and q_C that of a challenger. The leader's marginal cost is c_L; the challenger's *effective* marginal cost is $c_C = c_L + d$, where d captures every source of disadvantage or advantage: production cost, excise and logistics, the cost of obtaining distribution, and the brand premium consumers are willing to pay. The leader chooses q_L first; the challenger observes it and chooses q_C.

The challenger's best response is $q_C(q_L) = (a - c_L - d - bq_L)/(2b)$. Anticipating it, the leader solves $\max_{q_L} [a - b(q_L + q_C(q_L)) - c_L]\, q_L$.

Lemma 1 (Stackelberg equilibrium)**.** *The equilibrium outputs are*

$$q_L^* = \frac{a - c_L + d}{2b}, \qquad q_C^* = \frac{a - c_L - 3d}{4b}, \tag{1}$$

and the challenger-to-leader volume ratio is

$$\rho \equiv \frac{q_C^*}{q_L^*} = \frac{1 - 3x}{2(1 + x)}, \qquad x \equiv \frac{d}{a - c_L}. \tag{2}$$

With equal costs ($x = 0$) the leader sells twice as much as the challenger, the familiar first-mover advantage. A challenger that achieves parity ($\rho = 1$) must therefore have an effective cost advantage of $x = -0.2$: its combination of production cost, distribution and brand appeal must be worth 20% of the leader's margin capacity $a - c_L$. Inverting (2) gives

$$x = \frac{1 - 2\rho}{3 + 2\rho}, \tag{3}$$

which allows the effective cost gap to be read directly from observed volume ratios.

Proposition 1 (Comparative statics)**.** *A rise in the challenger's effective cost by Δ lowers its output by $3\Delta/(4b)$ and raises the leader's output by $\Delta/(2b)$. The leader recaptures two-thirds of the challenger's lost volume; the remaining third is lost to the market.*

Proposition 1 is the basis for the shock analysis below. It also gives a testable prediction: when the challenger suffers a shock, the leader's volume should rise by two-thirds of the challenger's absolute loss, holding demand fixed.

5.2 Portfolio breadth and gatekeeper access

The effective cost d includes the cost of persuading distributors and retailers to stock and promote a brand. Following Cherniak (2026), suppose a gatekeeper (distributor and retailer) would allocate a share σ^* of its vodka shelf to a firm's brands on margin grounds alone, and that a firm wants share $\theta > \sigma^*$. The gatekeeper accepts if compensated for its forgone profit $R(\theta)$. A firm whose total volume through that gatekeeper is κ times its vodka volume Q_V can pay this compensation as a rebate r on its entire portfolio.

Proposition 2 (Leverage from portfolio breadth)**.** *The minimum rebate rate that secures shelf share θ is*

$$r^*(\theta) = \frac{R(\theta)}{\kappa\, Q_V}, \tag{4}$$

which falls in proportion to the breadth of the firm's portfolio with that gatekeeper. A firm with a wide portfolio in a market secures access cheaply; a firm entering with vodka alone ($\kappa = 1$) faces the full cost.

At home, Global Spirits combined several vodkas with the leading brandy brand and a wine business, a high-κ position. In foreign markets it typically arrived with vodka alone. Proposition 2 implies that abroad it faced effective access costs several times higher than at home, unless it changed the game.

5.3 Choosing a route to market

An entrant can sell through an independent distributor, paying a margin share τ of the price to retailer w and competing for attention as a low-κ supplier, or it can open its own distribution office at fixed cost F_D per year.

Proposition 3 (Distribution-first entry)**.** *Own distribution is preferred when expected volume q exceeds*

$$\bar{q} = \frac{F_D}{\tau\, w + r^*/\kappa_{abroad}}, \tag{5}$$

where the second term in the denominator is the access cost per unit that an independent distributor would require from a low-portfolio supplier. The threshold falls as distributor margins rise and as the entrant's portfolio abroad narrows.

With a distributor margin of 28% of a price to retailer of \$69 a case (a \$10 bottle) and an annual office cost of \$2 million, the threshold is about 100,000 cases even before any access premium is counted. That is small relative to the firm's volumes in its main export markets. The founder's description of his strategy, "developing distribution in export markets, opening representative offices, and concluding contracts, where the main investment is the consumers'

access to the product" (IBTimes UK, 2024), is the strategy that Proposition 3 recommends for a high-volume, low-portfolio entrant.

5.4 Asset-light production as insurance

The firm also contracted out bottling: in 2019 it opened third-party bottling in Belarus, Azerbaijan, Kazakhstan and Texas (The Spirits Business, 2020), and it produces several categories abroad. In the model, a destroyed plant raises d by the cost of replacing own production with contracted capacity plus disruption costs. The larger the share of output already produced under contract, the smaller that increase. Asset-light production is therefore a form of insurance against a war shock, at the price of somewhat higher average cost in normal times.

6 Empirical Analysis

6.1 Data

Brand volumes come from the annual Brand Champions reports of *The Spirits Business* for 2015–2025 (The Spirits Business, 2020, 2021a, 2022, 2023, 2025, 2026), which compile volumes supplied by brand owners in millions of nine-litre cases. World vodka totals come from Euromonitor International as reported in the same series. I use the combined volume of Khortytsa and Morosha as the measure of the challenger, and Smirnoff as the measure of the leader. Pervak, the group's third vodka, sold 1.4 million cases in 2019 but is not reported consistently in later years and is excluded, so the challenger's volume is understated.

6.2 The effective cost index

Applying (3) to the ratio of Global Spirits' volume to Smirnoff's in each year gives the effective cost index shown in Figure 4. In 2015 the challenger sold 0.41 cases for every case of Smirnoff, implying an effective cost disadvantage of 4.5% of the leader's margin capacity. The disadvantage narrowed to 1.0% in 2018 and turned into an advantage in 2019, the year of Morosha's surge. By 2025, with a volume ratio of 0.98, the implied advantage was 19.3%. The index retreated sharply in 2022, from -9.5% to -2.7%, and then resumed its decline.

The index should be read as a summary of competitiveness in the markets where the two firms meet, not as an accounting cost. Much of Global Spirits' volume is sold in Central and Eastern Europe and Central Asia, where it benefits from proximity, familiarity and its own distribution, while Smirnoff's volume is concentrated in the Americas and Western Europe. The index therefore partly reflects geography; Section 8 discusses this limitation.

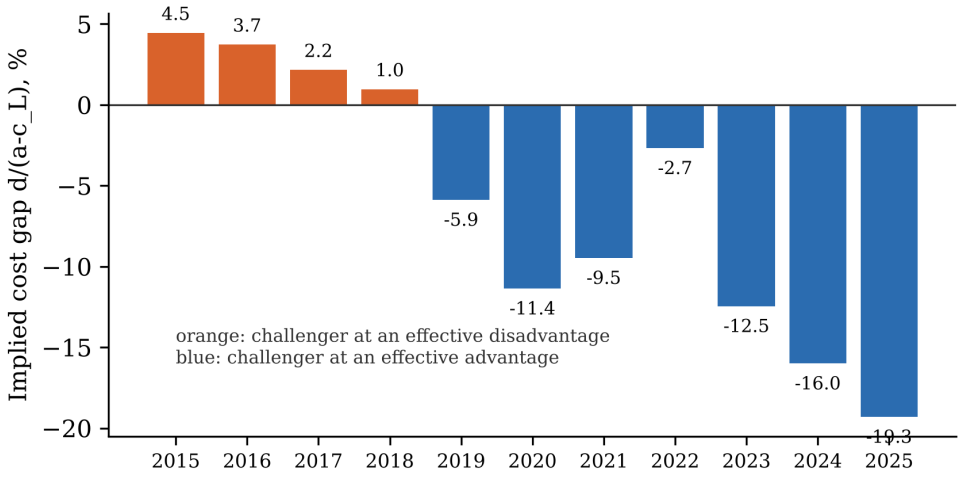

Figure 4: Implied effective cost gap of the challenger relative to the leader, $x_t = (1-2\rho_t)/(3+2\rho_t)$, where ρ_t is the ratio of Khortytsa plus Morosha volume to Smirnoff volume. Negative values indicate an effective advantage for the challenger.

6.3 A growth model with shocks

To separate underlying growth from shocks, I estimate for each brand j the model

$$\ln S_{jt} = \alpha_j + \beta_j t + u_{jt}, \qquad u_{jt} = \phi_j u_{j,t-1} + \gamma_j D_t^{2022} + \eta_j D_t^{2020} + \varepsilon_{jt}, \tag{6}$$

where S_{jt} is volume, β_j is trend growth, ϕ_j governs the persistence of deviations from trend, γ_j is the 2022 shock and η_j the 2020 pandemic shock. The model is estimated by non-linear least squares on 2015–2025 data. Table 2 reports the estimates.

Table 2: Trend-plus-shock estimates, 2015–2025 (standard errors in parentheses)

	GS combined	Khortytsa	Morosha	Smirnoff	Absolut
Trend growth β	0.084	0.046	0.140	−0.008	0.012
	(0.009)	(0.012)	(0.015)	(0.005)	(0.001)
Persistence ϕ	0.11	0.58	−0.10	0.04	−0.02
	(0.35)	(0.31)	(0.39)	(0.24)	(0.05)
2022 shock γ	−0.193	−0.174	−0.231	0.111	0.096
	(0.089)	(0.059)	(0.173)	(0.041)	(0.012)
2020 shock η	0.085	0.028	0.174	−0.103	−0.184
	(0.087)	(0.056)	(0.173)	(0.039)	(0.011)
R^2	0.96	0.95	0.94	0.78	0.99
Observations	10	10	10	10	10

Four results stand out. First, the group's combined trend growth is 8.4 log points a year, or 8.8% a year, with a tight standard error, against −0.8% for Smirnoff and +1.2%

for Absolut. Morosha's trend growth of 15% a year is the fastest among major vodkas in the sample. Second, the 2022 shock reduced the group's combined volume by 17.6% relative to trend, statistically significant at conventional levels. Third, persistence is low: the point estimate of $\phi = 0.11$ implies a half-life of about four months, meaning the group was back on its trend line within a year. Fourth, the leaders moved the opposite way in 2022, with Smirnoff and Absolut 11.7% and 10.1% above trend, and in 2020 the pattern reversed, with the global leaders hit by the pandemic and Global Spirits' brands largely unaffected.

Figure 5 compares actual volumes with the estimated trend and a counterfactual path without the 2022 shock. The cumulative volume lost between 2022 and 2025 is about 3.8 million cases, almost all of it in 2022 itself.

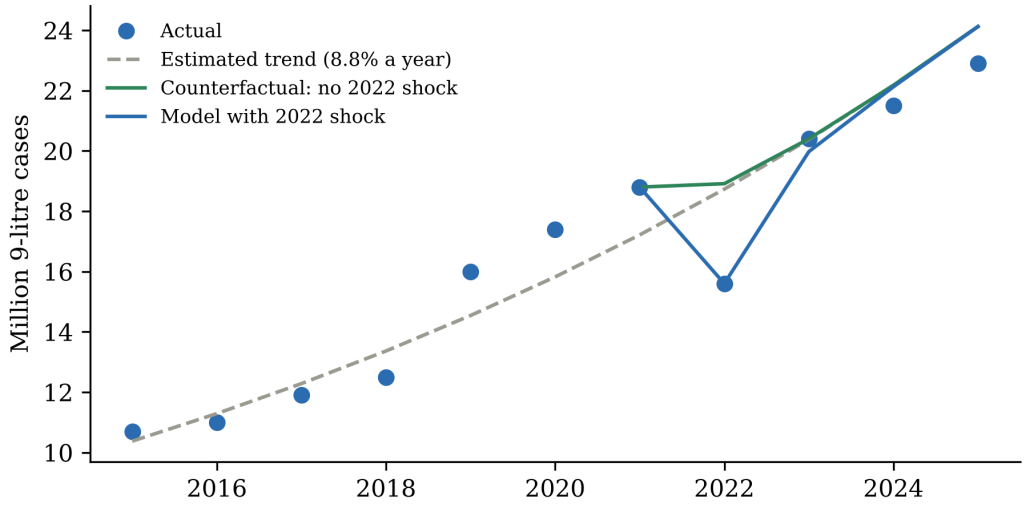

Figure 5: Global Spirits' combined vodka volume: actual, estimated trend, and model paths with and without the 2022 shock.

6.4 Validating the game on the 2022 episode

The effective cost index rose by $\Delta = 0.068$ between 2021 and 2022. Lemma 1 then predicts, with demand held fixed, a fall of 15.9% in the challenger's volume and a rise of 7.5% in the leader's. The actual changes were a fall of 17.0% for Global Spirits and a rise of 6.0% for Smirnoff. Because the index is constructed from the volume ratio only, the leader's response is not fitted by construction: it is a prediction of the model's strategic structure, and it is accurate to within 1.5 percentage points. The reversal of 2023, when Global Spirits rebounded by 31% and Smirnoff fell by 7.5%, is consistent with the same mechanism running in reverse.

7 Scenario Analysis: The 2026 Shocks

The destruction of the main warehouse in July 2026 and of the Khortytsa distillery in August 2026 are the largest physical shocks in the firm's history. Volume data for 2026 are not yet available, so this section uses the calibrated game to bound their effects. I treat the losses as an increase Δ in the challenger's effective cost, starting from the 2025 position ($x = -0.193$), and consider three scenarios: an asset-light relocation in which contract bottling and the logistics hubs in Poland and the Baltics absorb most of the loss ($\Delta = 0.034$, half the 2022 shock); a repeat of the 2022 shock ($\Delta = 0.068$); and a severe case of twice that size ($\Delta = 0.136$).

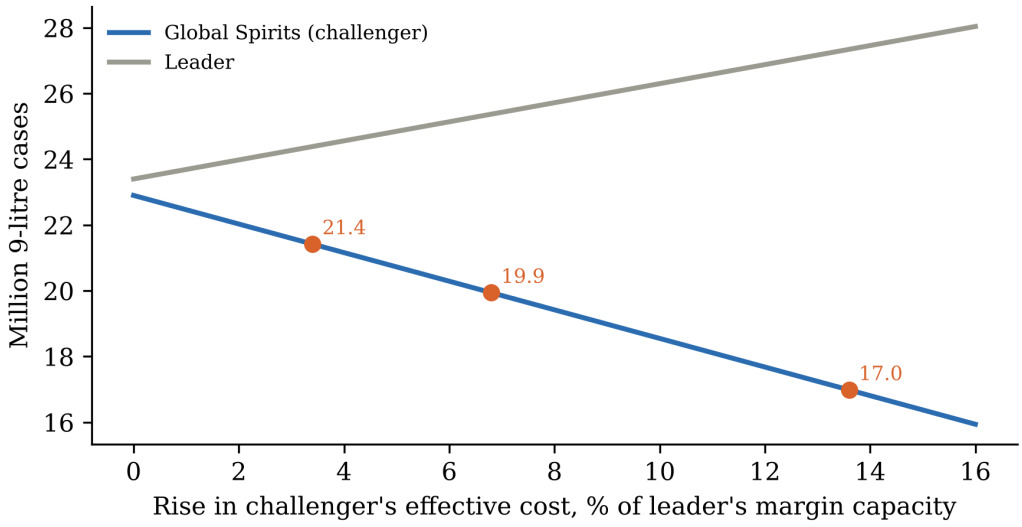

Figure 6: Equilibrium volumes of the challenger and the leader as the challenger's effective cost rises, starting from the 2025 calibration. Points mark the three scenarios.

Table 3: Scenario outcomes, holding demand at 2025 levels

Scenario	Δ	Global Spirits volume	Leader volume
2025 baseline	0	22.9m (–)	23.4m (–)
Asset-light relocation	0.034	21.4m (−6.5%)	24.4m (+4.2%)
Repeat of 2022 shock	0.068	19.9m (−12.9%)	25.4m (+8.4%)
Double the 2022 shock	0.136	17.0m (−25.8%)	27.3m (+16.9%)

Table 3 and Figure 6 report the results. Even the severe scenario leaves the group's two brands at about 17 million cases, still larger than any vodka in the world except Smirnoff and Absolut. The 2022 experience suggests that the loss would be temporary if the firm can restore effective capacity: the estimated half-life of deviations from trend was about four

months. The main difference from 2022 is that the distillery cannot be rebuilt, so recovery depends on contract and foreign production, which the model treats as a permanently higher d unless new capacity is built. Proposition 1 implies that about two-thirds of any volume Global Spirits cannot supply would be captured by the leading competitors.

8 Discussion

8.1 What explains the rise?

The model points to three sources of the challenger's competitiveness. The first is cost: a modern, high-throughput distillery and a home base with low labour and input costs. The second is distribution: the founder's background was in distribution, and the firm opened its own offices in its main markets rather than relying on independent wholesalers. Proposition 3 shows why this was rational for a high-volume entrant without a broad local portfolio. The third is portfolio: several vodkas at adjacent price points, together with a leading brandy, gave the firm the breadth that Proposition 2 identifies as a source of cheap gatekeeper access at home, and brand proliferation in the sense of Schmalensee (1978) protected its position against local rivals.

8.2 Lessons for the bundling literature

The portfolio-bundling framework is usually applied to incumbents excluding entrants. The Global Spirits case shows the same mechanism from the other side. At home the firm was the portfolio incumbent; abroad it was the single-category entrant facing incumbents with anchor brands. Its response, integrating forward into distribution and diversifying into gin, rum, tequila and whiskey, can be read as an attempt to raise its own κ in foreign markets and so reduce the access cost described by (4).

8.3 Limitations

Several limitations qualify the conclusions. First, brand volumes are supplied by brand owners and are not audited; they do not report the geographic split of sales. Second, the Stackelberg model aggregates geographically distinct markets into one, so the effective cost index mixes cost, brand and geographic advantages. Third, the growth model is estimated on ten annual observations, so the persistence parameter in particular is imprecise. Fourth, the 2026 scenarios assume constant demand and do not model possible changes in consumer sentiment toward Ukrainian brands, which rose sharply abroad after the 2022 invasion

(Bloomberg, 2022). Firm-level data on costs, prices and volumes by country would allow each of these to be addressed.

9 Conclusion

In a little over two decades, Global Spirits grew from a Ukrainian distribution company into the owner of the world's third and fourth best-selling vodkas, with combined volume almost equal to that of the category leader. A Stackelberg leader–challenger game, calibrated to brand volumes, describes that rise as a steady improvement in the challenger's effective cost position, predicts the incumbent's response to the 2022 shock closely, and explains the firm's distribution-first internationalisation as the rational response of a single-category entrant to incumbents' portfolio advantages. The same model suggests that the destruction of the Khortytsa distillery in 2026 will cost the group volume in the near term, but that its asset-light production network and foreign hubs limit the damage. Above all, the firm's record of returning to growth within a year of the 2022 shock suggests that the capabilities behind its rise, a distribution-first strategy, a broad brand portfolio and an asset-light production network, are durable, and that Global Spirits is well placed to remain one of the defining companies of the global vodka market.

Data and Code

Brand volumes and world totals were compiled from the sources cited. Estimation and calibration were carried out in Python; code is available on request.

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