

Toward a General Theory of Regulatory Arbitrage: A Marketing Systems Perspective

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Businesses and consumers frequently exploit differences in laws and policies across jurisdictions to circumvent local laws, regulations, or restrictions. This practice, known as regulatory arbitrage, can have negative consequences for both business and social welfare. Although previous research examines regulatory arbitrage in specific contexts such as financial markets and the pharmaceutical industry, a general framework remains missing. Drawing on marketing systems theory, this study proposes a conceptualization that reflects the necessary conditions for regulatory arbitrage to occur across a variety of contexts. It also derives a typology of strategies to prevent and eliminate regulatory arbitrage. Using the context of alcohol policy in Finland as an illustrative example, the study applies the conceptualization to examine a situation where regulatory arbitrage has repeatedly threatened local policy. The findings illustrate how the broader perspective offered by marketing systems theory can help to more accurately predict whether businesses and consumers will pursue regulatory arbitrage in a given situation, and to select appropriate strategies for preventing and eliminating regulatory arbitrage in situations where it has negative consequences.

Keywords: regulatory arbitrage, regulatory differences, marketing systems, macromarketing, case study

n 2015, Finnish consumers personally imported over 70 million liters of alcoholic beverages from abroad (Österberg, Varis, and Karlsson 2016), over twice the amount purchased in local restaurants and bars during the same year (Panimoliitto 2016). The overwhelming majority of these imports came from so-called booze rallies—expeditious round trips to neighboring Estonia for the purpose of purchasing cheaper alcohol (Österberg et al. 1996). Estonia's lower alcohol taxes and more liberal alcohol policies, coupled with its geographic proximity to Finland, make the country an attractive destination for Finnish consumers looking to bypass the strict regulations and high prices in their home country.

This practice of exploiting differences in laws and regulations across borders—often referred to as regulatory arbitrage, legal arbitrage, or jurisdictional arbitrage—is common among both businesses and consumers. On the business side, examples include tech companies Microsoft and Amazon circumventing the strict foreign labor laws in the United States by opening large offices in Vancouver, Canada, a short drive across the border from their headquarters in Washington State (Weise 2014). Likewise, many online gambling businesses choose to serve the global market from countries with gambling-friendly regulations, such as Malta and Antigua. On the consumer side, the

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private import of pharmaceutical products from countries with price controls is an often-cited example (Outterson 2005). While scholars continue to debate whether regulatory arbitrage is a problem or a force for greater good (Dorn 2014), its impact is hard to overlook from a public policy perspective. The estimated cost of Finnish booze rallies in terms of lost tax income to Finland's government totaled €164 million in 2014 (Berkhout et al. 2014), and examples abound of both businesses and consumers taking advantage of regulatory arbitrage opportunities to avoid legal obligations imposed on them in their home countries (Jones and Temouri 2016).

There is a growing body of studies on regulatory arbitrage, but they are limited to specific contexts such as the regulation of financial markets (Houston, Lin, and Ma 2012), price controls of pharmaceutical products (Brekke, Holmås, and Straume 2015), and round-tripping of capital (Fung, Yau, and Zhang 2011). While research in specific contexts is helpful and warranted, policy makers would also benefit from a general conceptualization of regulatory arbitrage that could serve as a guide to understanding the anatomy of any given arbitrage situation and aide policy makers in identifying appropriate responses in a variety of contexts. Moreover, research on regulatory arbitrage has yet to offer recommendations about how policy makers can prevent regulatory arbitrage in situations where neither harmonization of regulations nor limitation of access to arbitrage-enabling markets is a viable option.

This study aims to address these gaps. Drawing on marketing systems theory, we propose a conceptualization of regulatory arbitrage that outlines the conditions under which arbitrage is likely to occur. Then, we illustrate how the conceptualization helps illuminate regulatory arbitrage, using the

context of alcohol policy in Finland. Finnish alcohol policy provides a compelling case study of a situation where regulatory arbitrage threatens local policy, yet European free-trade agreements prevent policy makers from limiting access to arbitrageenabling markets, and harmonization of regulations is undesirable from a policy standpoint. We propose a general typology of strategies to prevent and eliminate regulatory arbitrage where it has negative consequences. Our findings suggest that policy makers can counteract regulatory arbitrage not only through harmonization and by preventing the movement of regulated resources across jurisdictions, but also by influencing the broader marketing systems in which the regulatory arbitrage takes place.

Coverage of Regulatory Arbitrage in Business Literature

Most studies of regulatory arbitrage are limited to the perspective of the arbitraging firm, and most of them focus almost exclusively on organizational behavior and how firms react strategically to the constraints imposed on them by institutions and regulatory systems, which are largely taken as given (Jackson and Deeg 2008). Outcomes of arbitrage strategies are evaluated from the firm's perspective (Ghemawat 2007), with an emphasis on the ability to secure competitive advantage by appropriately adapting to its regulatory and institutional setting (Martin 2014). Meanwhile, the consequences of firms' arbitrage strategies on institutional-level stakeholders remain underresearched (Jackson and Deeg 2008). Few suggestions exist for policy makers facing negative social outcomes of regulatory arbitrage, and they are limited to specific contexts. This study is especially sensitive to the needs of regulators and policy makers.

Proposed approaches to combating regulatory arbitrage can be boiled down to either harmonizing regulations—that is, removing the regulatory difference at the heart of the arbitrage opportunity-or preventing the movement of regulated resources across jurisdictions. Regarding harmonization, a popular school of thought in finance literature suggests that the problems associated with regulatory arbitrage can only be addressed by extensive legal coordination on an international level (Houston, Lin, and Ma 2012). However, it is unclear whether global legal harmonization is possible or even desirable (Riles 2014). Examples of the latter approach include U.S. laws that ban the transfer of funds from financial institutions to offshore online gambling providers (Eadington 2004) and laws concerning the exhaustion of intellectual property rights, which limit parallel trade of pharmaceutical products (Outterson 2005). Studies that discuss regulatory arbitrage in situations where neither approach is desirable, such as when harmonization runs contrary to policy objectives (as in the case with alcohol or drug laws) and access to outside jurisdictions cannot be prevented (e.g., due to free-trade agreements), are lacking. This study explores such difficult situations.

Most extant research sees regulatory arbitrage as stemming from situations in which the same economic transaction, or exchange, receives different regulatory treatment under different regulatory regimes (Fleischer 2010). Regulatory arbitrage becomes attractive when savings in regulatory costs from entering the transaction under the more favorable regulations exceed the transaction costs of exploiting the arbitrage opportunity.1 Accordingly, arbitrageurs are cast in the role of utility maximizers, managing the trade-off between regulatory costs and transaction costs. Although helpful, this transaction-focused approach excludes consideration of other parties and society that affect and may be affected by the exchange between parties (Webster and Lusch 2013), neglecting the influence of myriad contextual factors that make up and shape markets in a "complex, conflicted and increasingly interdependent world" (Shultz 2007, p. 293). This study considers the broader marketing system in which arbitrage transactions are embedded.

While most studies are content to argue that firms will have an incentive to engage in regulatory arbitrage under circumstances where institutional or regulatory differences are present, all else being equal (Witt and Lewin 2007), examining regulatory arbitrage from a systems perspective offers a more precise delineation of the conditions that shape the attractiveness of a regulatory arbitrage opportunity, taking into account not only the influence of the transaction costs incurred by the arbitrageur but also the influence of the structural elements of the marketing systems in which the arbitrage takes place.

A Marketing Systems Perspective on Regulatory Arbitrage

Marketing theory and practice has largely been built around a dyadic, cooperative, positive-sum exchange framework, where parties seek to enhance the potency of each of their assortments through voluntary cooperative exchange (Webster and Lusch 2013). Yet the resources used in the value creation typically come, to a significant degree, from actors outside the firm-consumer dyad (Vargo and Lusch 2011, 2016). Arndt (1986) argues that "most transactions are effected not through ad hoc market encounters, but in the context of stable relationships within networks" (p. 125). These networks can be thought of as "coordinated systems of special capabilities" that work together to "design and implement marketing programs" (Wilkie and Moore 2007, p. 272). Drawing on the work of Alderson (1965), many scholars suggest that all "micro" marketing activities occur within, and derive meaning from, some larger marketing system (e.g., Hunt 1981; Layton 2007; Lusch and Vargo 2006; Shultz 2007; Wilkie and Moore 2007). Acts of regulatory arbitrage are no different in that respect.

Ranging from a single act of exchange between two individuals to complex interactions involving multiple sellers, buyers, and traded objects, marketing systems can be described in terms of their structural elements, which include the broader social context and exchange logic (Layton 2007; Vargo and Lusch 2011), marketing flows (Klein and Nason 2000; Layton 2007; Wilkie and Moore 2007), networks of resources and actors (Arndt 1986; Klein and Nason 2000; Layton 2007; Vargo and Lusch 2011; Wilkie and Moore 2007), governance (Layton 2007; Vargo and Lusch 2011), the assortments created and delivered (Klein and Nason 2000; Layton 2007; Wilkie and Moore 2007), and the many customer groups whose needs are served by the operation of the marketing system (Layton 2007; Vargo and Lusch 2011; Wilkie and Moore 2007). A marketing systems approach allows for a more holistic, dynamic, and

¹Amelung (1990) offers a detailed overview of the transaction costs involved in international trade, all of which may be applicable to regulatory arbitrage.

realistic perspective of value creation among a wider, more comprehensive configuration of actors. It can reveal structural details that are not apparent from a more dyadic, microlevel view, but which make the microlevel phenomena more understandable (Chandler and Vargo 2011).

The ultimate purpose of a marketing system should be to improve human welfare by providing an assortment of heterogeneous goods, services, experiences, and/or ideas to meet a variety of needs, while also providing economic benefits to all the system's participants (Alderson 1965; Layton 2011). Whenever certain elements of an assortment are sought by customers but not found, or if there are elements in the assortment that are not sought by customers, the assortment is said to be discrepant (Alderson 1965). In most cases, such discrepancy is seen as detrimental to societal welfare. However, in some instances, societies may wish to deliberately restrict access to certain assortments, such as drugs or alcohol, contributors to obesity or unsustainable energy use (Layton 2011). Consumers may then seek broader assortments by turning to parallel marketing systems, "structurally distinct marketing systems (that) coexist in serving the same or similar sets of needs" (Layton 2007, p. 234).

Regulatory arbitrage is triggered by differences in regulation across regimes (Fleischer 2010). If transaction costs are sufficiently low to make use of lower regulatory costs elsewhere, arbitrage likely will be attractive. However, if part of the value exchanged originates from beyond the actors engaged in the immediate transaction, the attractiveness of the arbitrage opportunity may also be influenced by other, nonregulatory factors affecting the exchange. For example, O'Hara and Ribstein (2009) discuss a case where relocating a company to a state with more friendly regulations would create large savings. However, the cost advantages must be weighed against other factors, such as proximity to important business partners, customers, or labor pools. A market systems perspective offers a more holistic view of the decision than a simple analysis based on transaction costs.

From a systems perspective, whether or not consumers will take advantage of an arbitrage opportunity depends on the following conditions. First, consumers must have access to the parallel marketing system. Second, the differences in value between the assortments (of products and prices) offered by the two marketing systems must exceed any disadvantages associated with participating in the parallel market. While a parallel market may offer a superior assortment, other factors related to the structural elements of the system—that is, its exchange logic and context, economic flows, network structure, and governance—may compare unfavorably and negate any benefits gained from the broader assortment.²

In summary, we propose the following conceptualization of regulatory arbitrage: When the regulations governing a marketing system cause persistent assortment discrepancy, businesses and customers will seek to engage in regulatory arbitrage if they have access to a parallel marketing system that offers a superior assortment, and provided that other structural differences between the two marketing systems do not negate the advantages of the arbitrage. It follows that to prevent or curb regulatory arbitrage, policy makers should either minimize regulatory differences that lead to assortment disparity between marketing systems, limit access to parallel marketing systems, or seek to influence the structural elements of the marketing systems to make the arbitrage opportunity less attractive.

Consistent with marketing systems theory, regulatory arbitrage has wide-ranging effects on a system, altering flows and assortments of products in and between markets, redirecting money flows, and challenging logics, policies, and governance. Our conceptualization differs from those proposed in previous research in that it suggests a broader range of approaches to counteract regulatory arbitrage. Along with the conventional strategies-harmonizing regulations and limiting access to parallel markets—we propose that policy makers may also seek to discourage regulatory arbitrage by influencing the broader marketing systems in which exchange takes place.

Research Context and Method

We develop our conceptualization of regulatory arbitrage by applying a market systems analysis to a case where arbitrage poses a public policy problem: the context of alcohol policy in Finland. The context is rich in data for studying regulatory arbitrage, and is well suited to a longitudinal case study (see Siggelkow 2007). Finland's entry into the European Union (EU) in 1995 set in motion a gradual liberalization of alcohol policies, presenting consumers (and, later, businesses) with multiple opportunities for regulatory arbitrage, which the Finnish government has attempted to curtail using a broad range of countermeasures. The various moves and countermoves have, over the years, demonstrated the system complexity that can be vexing for regulators. Our context also encompasses several topics referenced in the call for papers for this special section, including pricing regulations across markets, the regulation of controversial products, and transnational issues with respect to online marketing practices.

We collected data from a variety of sources, employing a combination of archival research, semistructured interviews (McCracken 1988), and site observation (Lincoln and Guba 1985). The diversity of data sources reinforced our understanding of the context and helped us to triangulate our findings (Stewart 1995). Data collection for the study began in autumn 2015. In keeping with case study protocols (Yin 1994), we began by examining official government documents, including research reports, court case summaries, and national statistics, as well as news articles pertaining to alcohol policy and consumption in Finland. We analyzed news reports and online content published by relevant stakeholders, such as policy makers, retailers, breweries, trade associations, organizations involved in health care, and consumer activist groups. In doing so, we were able to gain a holistic understanding of the current practices of alcohol production, distribution, retail, and consumption in Finland; how these practices are regulated; their impact on society; and how the practices are embedded in both the local historical and broader European contexts. We were also

²We acknowledge that, in many cases, differences between the structural elements of parallel marketing systems may be directly responsible for the assortment discrepancy in the first place (e.g., differences in the network structure of two marketing systems may directly result in one marketing system providing a cheaper assortment). Here, we refer specifically to differences in the structural elements of parallel marketing systems that are not already reflected in the assortments provided by the respective marketing systems (e.g., differences in network structure of two marketing systems that enable one marketing system to deliver an otherwise identical assortment more efficiently to end users).

able to identify the stakeholders that affect and are affected by these practices.

To complement and verify our findings from archival research, we conducted 14 formal interviews with people from each of the stakeholder groups we identified during the initial stages of data collection and analysis. Our informants included consumers, entrepreneurs, policy makers, health care professionals, and the chairperson of a trade organization. Table 1 summarizes informants' background information. The interviews were semistructured (McCracken 1988) and lasted between an hour and two hours each. Data from the interviews largely supported our initial findings, fleshing them out with informants' personal perspectives and experiences.

We also engaged in participant observation to further triangulate other sources of data. We participated in three craft beer festivals, purchased craft beer over the Internet, and traveled to Estonia to purchase alcoholic beverages in bulk from a retailer that specifically targets Finnish consumers. We generated field notes and photographs and collected marketing materials such as pamphlets and brochures. We conducted in situ interviews with festivalgoers and with cotravelers on our trip to Tallinn, Estonia. We also collected textual discourse online from popular Finnish discussion groups, using an observational method similar to netnography (Kozinets 2002). We focused on message board threads discussing the best practices for ordering alcoholic beverages from outside of Finland. Threads addressed a wide range of topics, including retailer comparisons and recommendations, the avoidance of confiscation by customs, and more general discussions of Finnish politics related to alcohol sale and consumption.

Finland historically has struggled with high levels of binge drinking among its population (Sulkunen 1997), and the country has always maintained stringent regulations on the retail of alcoholic beverages in efforts to reduce alcohol consumption. The marketing system is managed by a government monopoly, Alko, that holds almost complete control over the sale of all alcoholic beverages. Exceptions include grocery stores, which are allowed to carry beverages at ≤4.7% alcohol by volume, and licensed bars and restaurants that are permitted to sell alcoholic drinks for consumption on their premises. Strict regulations govern the advertising and promotion of alcohol products, and the country has some of the highest alcohol taxes in Europe (European Commission 2018).

Differences in the way alcohol sale is regulated across the EU have led to many opportunities for regulatory arbitrage, both for Finnish consumers and for businesses. The following case study explores the underlying conditions that contributed to the emergence of multiple opportunities for regulatory arbitrage after Finland's entry into the single European market in 1995.

Regulatory Arbitrage and Finnish Alcohol Policy

Restrictions on the price and availability of alcoholic drinks lead many Finnish consumers to turn to private import as a source of cheaper and more readily available alcoholic beverages. Taxand duty-free shopping, especially combined with trips to neighboring Estonia, represents a particularly attractive parallel marketing system due to Estonia's more lenient policy on alcohol retail and the two countries' proximity (Koski et al. 2007).

Table 1. Informant Profiles

Name	Age (Years)	Gender	Role
Sari	28	Female	Consumer
Sami	26	Male	Consumer
Antti	34	Male	Consumer
Toni	30	Male	Consumer
Aleksi	60	Male	Consumer
Maria	N.A.	Female	Chairperson, trade organization
Nina	56	Female	Former member of parliament
Peter	N.A.	Male	State secretary
Santeri	29	Male	Entrepreneur
Ilmari	36	Male	Entrepreneur
Onni	40	Male	Entrepreneur
Rasmus	28	Male	Entrepreneur
Anne	31	Female	Health care professional
Jaakko	32	Male	Health care professional

Notes: N.A. = not available.

Prior to Finland's entry into the European Single Market, the Finnish government could negate arbitrage opportunity by limiting access to parallel marketing systems. This was done through high transaction costs on the private import of alcoholic beverages in the form of strict customs regulations, which enforced limits on the total amount of tax-free alcohol private individuals could bring into the country, and a minimum length of time they had to spend abroad before bringing in any alcohol.

An Arbitrage Opportunity Emerges as Finland, and Later Estonia, Join the EU

When Finland joined the EU in 1995, policy makers could no longer intervene by limiting the quantity of alcohol imported for private use. Derogation negotiated with the EU gave the Finnish government until 2004 (the same year Estonia joined the EU) to gradually lift import restrictions before abolishing all quotas on private import of alcohol from EU member states. The resulting situation presented an arbitrage opportunity for Finnish consumers, who then had unlimited access to the parallel marketing system in Estonia.

Although attractive in terms of price and assortment, the arbitrage opportunity was not without its downsides. The parallel system was more complex. Finnish consumers would have to make travel arrangements, seek out suitable retailers, buy and transport products in bulk, and bear the risk of purchasing bootlegged products. But for many consumers, the benefits of the assortment, with prices a fraction of those in Finland, made up for the complexity, especially when purchasing alcohol in bulk. Sami, a Finnish consumer who had traveled to Estonia to purchase drinks for his wedding, told us:

We spent close to a thousand euros on drinks, maybe a little over if you count the travel costs [to Estonia]. Beer, wine, champagne, everything. This would have been much more expensive here [in Finland].... Yes, I know many people who did this. For one friend, we combined it [the trip abroad to buy drinks] with his bachelor

No longer able to regulate import quantities, the Finnish government initially sought to reduce the attractiveness of the arbitrage opportunity by decreasing price differences between the two countries, thus also decreasing assortment disparity between two marketing systems. In July 2003, the government voted to cut excise taxes on alcoholic products by an average of 33%. Estimates suggested that the tax cuts would lower the retail prices on alcoholic drinks by an average of 22%, resulting in increased total consumption of alcohol (Koski et al. 2007). However, as private imports were projected to increase alcohol consumption regardless of the tax cuts, the Finnish government felt that increased domestic consumption was preferable to the more negative consequences of excessive private imports (HE80/2003, p. 28).

As a result of the tax cuts, 2004 saw both domestic retail sales in Finland and imports of alcohol from Estonia increase significantly, resulting in a 10% overall increase in alcohol consumption per capita,3 from 9.4 liters worth of pure alcohol in 2003 to 10.3 liters in 2004 (Koski et al. 2007). Officially recorded alcohol consumption increased by 6.5%, from 7.7 to 8.2 liters per person, while estimates of unrecorded—and thus untaxed—consumption increased by almost 25%, from 1.7 to 2.1 liters worth of pure alcohol per person. The increase in domestic retail sales did not cancel out the effects of the tax cuts on tax revenues, with state income from alcohol tax decreasing by €350 million from 2003 (Kiander and Romppanen 2005). To counter increasing domestic alcohol consumption, in 2007, the Finnish government opted to pass restrictions on alcohol sale hours, somewhat limiting access to the domestic assortment. This was followed by an amendment to the Alcohol Act, which modified the exchange logic in the local marketing system by banning quantity discounts, happy hours, and the use of beer as loss leaders in stores, and passing stricter restrictions on advertising. A moderate alcohol tax increase followed in 2008 (Finnish National Institute for Health and Welfare 2017), increasing overall assortment disparity.

Consumption data from subsequent years suggest that the aforementioned measures, together with the slight increase in tax in 2008, decreased the attractiveness of the assortment offered by the local market system, without significantly increasing arbitrage. Following the expected surge in 2004–2005, private alcohol imports dropped steadily in subsequent years from over 2.3 million liters in 2005 to just below 2 million liters in 2006, remaining at that level for almost a decade (Finnish National Institute for Health and Welfare 2017). Although the 2004 increase in domestic consumption was more persistent, rates began to decline steadily in 2008 (Finnish National Institute for Health and Welfare 2017).

A Changing Exchange Logic Presents Another **Opportunity for Arbitrage**

In 2013, private imports of alcoholic beverages once again began to climb, soon reaching levels last seen in 2004-2005. The increase was spurred by a change to the exchange logic in the parallel market: ferry companies and bus tour operators were now offering consumers the option to order alcoholic beverages online before their trip and collect the purchased products at the harbor upon return to Finland. Originally intended as a preorder service for travelers, to many Finnish consumers, the value proposition was instead the same as an online store that delivered purchases directly to the harbor. Toni, whom we spoke to on a ferry, told us, "It's like going to the post office to pick up a book you ordered from Amazon. I've got my brother and his friends waiting for me in the harbor. [The ferry company] will bring the stuff to the terminal, and we'll load it into his van.'

In October 2013, the Finnish customs authority intervened by passing a new policy requiring ferry passengers traveling by foot to carry in person all alcoholic beverages purchased abroad through customs. The policy thus prohibited the delivery of preordered purchases directly to the harbor. In 2014, the policy was expanded to also include passengers traveling by bus, preventing tour operators from offering similar services. Under the new rules, ferry companies and bus tour operators were still allowed to take preorders, but transfer of possession had to occur prior to disembarking from the ferry. Although the policy only slightly affected the economic flow of possession, it changed the value proposition entirely, as consumers could no longer preorder more alcohol than they could carry on their person. By the end of 2015, private imports of alcoholic beverages dropped by almost 25% (Finnish National Institute for Health and Welfare 2017).

Online Retail Ushers in a Further Arbitrage **Opportunity**

At the turn of the millennium, yet another parallel marketing system emerged as a source of less expensive alcohol for Finnish consumers. Alcohol retailers worldwide had begun experimenting with online commerce as early as the mid-1990s, and by the early 2000s, more and more Europe-based online stores were offering to ship beer, wines, and spirits to customers in Finland. While Finnish alcohol policy strictly regulated the sale of alcohol within the nation's borders, it was not immediately clear how the regulations would apply to online purchases from businesses outside the country. The issue was further complicated by uncertainty over which party—the retailer or the purchaser-was liable for alcohol and packaging taxes on the beverages. Many online stores did not pay Finnish alcohol and packaging tax, essentially operating as a gray market. As a result, the products were often priced much lower than in the stores run by the Finnish monopoly, even after accounting for shipping costs. Even in cases where the price discrepancy was negligible, the emergence of specialty online stores offered Finnish consumers a far broader range of products than the selection at the government monopoly. As Sari told us, "Sometimes the shipping costs will be higher than the total cost of the beer, but [the broader selection provided by online stores] is worth it."

The emergence of international online alcohol stores initially presented a challenge for Finnish microbreweries. Finnish alcohol policy prohibits domestic breweries from setting up online stores. As a result, local craft brewers faced increased competition from foreign online stores selling specialty craft beer to Finnish consumers, which Finnish alcohol policy allowed (at least in practice). This legal discrepancy put domestic microbrewers at a disadvantage not only in the Finnish market but internationally as well. One Finnish brewery had recently won an award at a foreign beer festival but was struggling to capitalize on the resulting exposure: "We have

³All alcohol consumption statistics reflect alcohol use by use by persons 15 years of age or older.

received inquiries from foreign beer enthusiasts, but from Finland we cannot send them our winning ale. We would like to be international and go over the borders, but we cannot because of the monopoly," Santeri told us.

Online retail also opened a new arbitrage opportunity for Finnish consumers and businesses by serving as a new exchange context in parallel marketing systems. Aside from lower prices on the gray market, Internet commerce facilitated economic flows, allowing Finnish consumers to browse the offerings of myriad foreign retailers. Consumers were able to acquire products from Estonia and other European countries without having to travel abroad. Similarly, Finnish microbreweries saw an arbitrage opportunity in the different ways that online sale of alcohol is regulated in Finland and Estonia. As Estonian law allows microbreweries to sell their products directly to consumers, many Finnish entrepreneurs found that, ironically, one way to serve their Finnish customers was to relocate part or all of their retail operations abroad and set up an online presence. Ilmari, an entrepreneur, quipped, "We take our beer from Finland to Estonia. Finns bring it back home."

Finnish authorities took active measures to curb the emerging online gray market, with Finnish customs authorities, seizing over 140,000 liters worth of alcoholic beverages due to unpaid taxes between 2004 and 2007 (Yle 2010), and in 2016 announcing plans to charge multiple online retailers for back taxes from 2013 onward (Yle 2016). Although these measures essentially put an end to the gray market, the online market for alcohol still presented an arbitrage opportunity for consumers and Finnish microbrewers willing to stay on the right side of the law. While government agencies debated the legality of online alcohol retail (see Valvira 2015), the official position of the Finnish customs authorities was that online retail is legal, as long as the party responsible for arranging the transportation of the purchased goods paid the required alcohol and packaging taxes. Between 2010 and 2014, the online market grew by over 500% (TNS 2015), as many retailers forged networks with distribution companies and hired accounting agencies to ensure that they were in compliance with Finnish tax laws.

In April 2017, the Finnish national court ruled that the national licensing system, which prohibits unlicensed retailers from selling alcohol in Finland, is not discriminatory against foreign businesses. This decision paved the way for a ban on online retailers shipping alcohol to Finland. Currently under debate in parliament, the ban would still allow Finnish consumers to purchase alcoholic beverage online, as long as they arranged for transportation of the products without any input from the retailer. The ban would also shift the burden of paying taxes on the purchased products from the retailer to the consumer. Although such an arrangement would not affect the overall assortment of the parallel marketing system in terms of price or variety, it would significantly increase network complexity from the consumer's standpoint. Consumers would have to deal with online retailers, shipping companies, and the Finnish customs authority separately.

In addition, 2017 saw the Finnish alcohol monopoly launch its own online store, aimed at providing customers with a wider selection of beverages than the monopoly's brick-and-mortar stores currently do, offering delivery to most stores operated by the monopoly (Alko 2016). The introduction of such a service is a clever attempt to further decrease the attractiveness of the arbitrage opportunity presented by online retail. Broadening the assortment in the local marketing system should decrease the assortment disparity between the Finnish marketing system and other parallel systems.

Discussion

The cat-and-mouse game between Finnish alcohol regulators and consumers, over the past two or more decades, offers numerous lessons regarding regulatory arbitrage in a complex market system, and its potential remedies, especially in situations where conventional remedies, such as harmonization of laws or restricting trade, are not possible or practical. Rejecting the ceteris paribus assumptions of conventional approaches, a marketing systems perspective recognizes that the attractiveness of regulatory arbitrage depends on assortment disparities that include not only regulatory differences and transaction costs but also other structural elements of the marketing system. As parallel marketing systems evolve, changes in either system's structural elements—exchange logic and context, network structures and dynamics, economic flows, and governance—can lead to the emergence (or disappearance) of opportunities for regulatory arbitrage and changes in their attractiveness to wouldbe arbitrageurs.

Our findings, summarized in Table 2, illustrate this principle in practice. Once the Finnish government was no longer able to prevent the private import of alcohol from neighboring Estonia by imposing prohibitive transaction costs between the two marketing systems, changes in governance (harmonization and subsequent regulatory changes in the Finnish marketing system), in marketing flows (preorders on ferries), in the exchange logic and context (online retail), and in network dynamics (linkages managed by online retailers) each contributed to the relative attractiveness of regulatory arbitrage opportunities. Similarly, the Finnish government sought to limit the prevalence of regulatory arbitrage through policies affecting these structural elements of the two parallel marketing systems.

Implications for Policy Makers

Based on our findings, we can offer recommendations to policy makers about the types of levers that can be used either to prevent regulatory arbitrage from occurring or to intervene in situations where it is a problem. Even when policy makers are precluded from raising transaction costs or harmonizing laws, there may be opportunities to mitigate against regulatory arbitrage by decreasing the disparity between two marketing systems' assortments through influencing the structural elements in one or both of the marketing systems.

The most straightforward way to prevent regulatory arbitrage is to harmonize governance structures between the two parallel marketing systems. Such policy harmonization may be the best option in cases where regulatory differences arise from archaic laws based on historical conventions, such as different accounting practices in multiple markets (Riles 2014). Harmonization strategies often require a strongly regulated market to adopt the standards of the weaker regulator (Morrison and White 2009). Conversely, harmonization may follow the stricter regulations, as in the case of the standardization of value-added tax rates and excise duties mandated by the EU, which has helped prevent the practice of tax arbitrage across member states. When regulatory differences are rooted in

Time Line of Events Giving Rise to Regulatory Arbitrage Opportunities, and Countermeasures Taken by Finnish Policy Makers Table 2.

Date	Event	Effect on Arbitrage Opportunity
An Arbitrage Opportunity Emerges as Finland Joins the EU		
1995	Finland becomes an EU member.	
2004	Quotas on private imports of alcohol from EU countries abolished.	Transaction costs removed, giving Finnish consumers unlimited access to parallel marketing system.
	Finland reacts to Estonia's impending EU membership by lowering alcohol tax.	Alcohol tax harmonization decreases disparity between parallel market systems.
	Estonia becomes an EU member.	
	Domestic alcohol consumption increases from 7.7 to 8.2 liters worth of pure alcohol per person.	
	Private imports of alcohol increase from 1.7 to 2.1 liters per person.	
2005–06	Private imports of alcohol begin to decline in 2005, dropping to 1.9 liters per person in 2006.	
2007–08	Finland passes restrictions on alcohol sale hours, pricing, promotion, and advertising.	Restrictions limit access to domestic assortment, modify exchange logic of local marketing system.
	Alcohol tax raised marginally.	Marginal tax increase slightly broadens disparity between parallel marketing systems.
2008	Domestic alcohol consumption begins to decline.	
A Changing Exchange Logic and Government Response		
2012–13	Popularity of online preorders leads to 13.5% increase in private imports of alcoholic beverages.	New exchange logic in parallel marketing system increases arbitrage attractiveness.
October 2013	Finnish customs authority prohibits the delivery of preordered purchases directly to the harbor.	Customs policy changes economic flows of possession that underpin exchange logic.
	Passengers traveling by foot must carry in person alcoholic beverages purchased abroad through customs.	
2014–15	Private imports return to pre-2012 levels.	
Online Retail Ushers in a Further Arbitrage Opportunity		
2010–14	Online market for alcohol grows by 500%.	
2016	Finnish customs charge multiple online retailers with back taxes dating back to 2013.	
2017	The Finnish national court rules that the national licensing system is not discriminatory against foreign businesses, paving the way for a ban on online retailers shipping alcohol to Finland.	Ban on shipping alcohol to Finland would increase network complexity in parallel marketing system.
	Finnish alcohol monopoly launches online store.	Finnish government monopoly's foray into online retail broadens local assortment.

nations' divergent policy objectives, harmonization is problematic because it imposes the same sets of laws and regulations on culturally and socially diverse nations that may require different sets of legislation to maximize the welfare of their citizens. Whether the costs of legal harmonization might outweigh the costs resulting from regulatory differences is a matter of ongoing debate (Wagner 2011).

Policy makers may also address regulatory arbitrage by imposing high taxes and duties, or by setting nontariff barriers to restrict (or even prohibit) the movement of regulated resources between marketing systems. This approach is useful when harmonization of regulations is difficult or undesirable, such as in the case of differing pricing regulations across markets. In the pharmaceutical industry, some countries, such as Canada, impose price controls on products, while other countries, such as the United States, do not. The resulting price discrepancies between the two sets of countries present an opportunity to would-be arbitrageurs, as assortment discrepancy is greater in the United States than in Canada. To remove this arbitrage opportunity, countries without price controls, such as the United States, limit international pharmaceutical trade through strict import and distribution regulations, such as those mandated by the U.S. Prescription Drug Marketing Act of 1987 (Outterson 2005). In the context of international taxation, both the EU and the Organisation for Economic Co-operation and Development (OECD) have recently taken steps to impose restrictions on how the movement of certain capital across borders can be interpreted by law, which would prevent multinational corporations from shifting taxable profits to low-tax countries through the transfer of intangible assets such as patents, copyrights, and tax-deductible loans (OECD 2013).

Finally, policy makers may seek to offset benefits of regulatory arbitrage by influencing one or more structural elements that comprise the marketing systems in question. Corporate governance policies in the state of California allow Silicon Valley firms the freedom to become deeply enmeshed in various network forms of organization, which is conducive to radical innovation (Aoki 2001). For many firms, these benefits at the network level of the marketing system offset the potential savings of relocating to a different, more tax-friendly, state. Certain policies aimed at structural elements may influence assortment disparity directly, such as the Finnish government monopoly's foray into online retail, providing domestic consumers with a wider selection. Other policies may influence the attractiveness of a marketing system as a whole, without directly impacting the assortment produced. Finnish policy makers successfully influenced the network dynamics and exchange logic of parallel marketing systems in the cases of online retail and preorder services offered by tour operators, which decreased the attractiveness of arbitrage without directly affecting the assortment offered by the marketing systems.

The third approach is in keeping with the varieties of capitalism and comparative capitalisms literature streams, which suggest that the institutional structure of a particular political economy can provide firms with unique advantages for engaging in specific types of activities, to the extent that firms in a particular nation might be able to perform certain types of activities, and produce certain kinds of goods, more efficiently than firms in other nations (Hall and Soskice 2001). While certain regulatory differences between countries might otherwise encourage domestic businesses to relocate or local consumers to purchase goods from abroad, businesses and consumers might choose to forgo the arbitrage opportunity if their local marketing system offers other advantages that compensate for or exceed the benefits to be gained through arbitrage. Our findings illustrate how, in cases where harmonization runs contrary to policy objectives and free-trade agreements prevent policy makers from limiting access to jurisdictions that enable arbitrage, this approach may often be the only course of action available to policy makers.

Finally, it should be noted that the approaches discussed here are not mutually exclusive but can be implemented concurrently. Our findings illustrate how, after alcohol tax regulations between Finland and Estonia were harmonized in 2004, the Finnish government quickly passed policies aimed at changing the local marketing system's exchange logic (banning quantity discounts, happy hours, and the use of alcoholic beverages as loss leaders) and curtailing flows of information through advertising restrictions.

Regulatory Arbitrage and Policy Circumvention

Our findings also show how regulatory arbitrage can lead to national policy being circumvented when free-trade agreements, such as the EU's free-movement directives, prevent policy makers from intervening when businesses use regulatory arbitrage to bypass domestic policies and regulations. Our study illustrates one such case of policy circumvention, wherein retailers of alcoholic beverages can circumvent the strict restrictions on the sale of alcohol in Finland if their online stores are located abroad. Other recent analogues from the EU context include "social dumping" practices, wherein businesses hire employees from countries with low minimum wages to work in countries with stricter collective bargaining agreements (Laval un Partneri Ltd. v. Svenska Byggnadsarbetareförbundet 2007), and the relocation of online gambling firms to Malta, from which they are still able to target customers in EU countries that have national monopolies on gambling.

Our findings further reveal that regulatory arbitrage under free-movement conditions can not only lead to national policy circumvention but also render national policy discriminatory against local businesses. While Finnish alcohol policies prohibit local breweries from retailing their product directly to domestic consumers, the EU's free-movement directives prevent the Finnish government from enforcing similar restrictions on foreign breweries based outside of Finland. This effectively places Finnish breweries at a disadvantage to their foreign counterparts, who are free to retail their products directly to Finnish consumers via the Internet.

Our findings show that under conditions of free movement of goods, capital, and labor, businesses and consumers can exploit regulatory differences between nations to circumvent national policy, thus echoing the arguments of Beck (1998), who warns that the liberalization of global markets has the potential to undermine national sovereignty. Our study encourages policy makers to be sensitive to the global context when setting local policy, to avoid situations where national policy is at best easily circumvented and at worst discriminatory against local businesses. While this study is agnostic on the broad question of whether regulatory arbitrage is generally beneficial or detrimental to business and society, we contribute to the debate by offering an example in which regulatory arbitrage has detrimental consequences to local policy.

Conclusion

While we believe that our conceptualization will be useful to policy makers, we also hope that it will stimulate further academic research. We encourage future researchers to formally test its fit to a broad variety of other cases. We have reviewed the advantages and disadvantages of the three types of responses to regulatory arbitrage, and we would like this overview to stimulate further research on the merits and drawbacks of each approach. Finally, we find evidence suggesting that in situations where international markets are regulated by free-movement agreements, regulatory arbitrage poses significant challenges for national policy. We encourage further research investigating the implications that global market liberalization might have for the sovereignty of national policy.

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