

Does the System Matter? Surplus Directed to Society in Monopolistic and License-Based Gambling Provision

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Abstract

The comparative advantages of license-based and monopolistic gambling regimes have been discussed in previous literature from the perspective of their capacity to prevent harms, but less is known about the ability of different regimes to produce public revenue. Gambling is nevertheless an important source of revenue for public service provision. The current paper compares figures from the financial statements of two monopolistic gambling providers in Finland (Veikkaus) and Norway (Norsk Tipping), to four license-based companies operating in the Italian market (Snaitech, Sisal, Gamenet and HBG gaming) to analyze how much surplus they contribute to their host societies and what kind of factors these amounts depend on. The results show that overall, the Nordic monopolistic operations appear more effective in terms of producing gambling surplus to society than the Italian license-based companies. This difference is analyzed in terms of game product portfolios, operating costs, and levels of normal profit. The role of operating costs appears to be the most important factor explaining the lower surplus generated by Italian companies. However, the bulk of these operating costs are directed to the redistribution network which creates employment. If these employment effects are considered, both licensing and monopolistic regimes appear similarly effective. We conclude by problematizing the use of financial effectiveness as a measure for good gambling policy. High surplus collected for societies is also related to high overall gambling volumes that go against public health objectives of reducing harms.

Keywords: gambling, monopoly, licensing, profits, income statements

Introduction

The provision of gambling is controlled and regulated across jurisdictions not only to protect consumers, maintain the integrity of games, and limit the offer of gambling, but also to raise public revenue. Gambling is a relevant funding source for public services, producing the value of approximately 1–2 percent of national budgets in European countries before the COVID-19 outbreak and related cut-downs in 2020 (Egerer, Marionneau et al., 2018; Sulkunen et al., 2019). Using gambling as a funding source for public services is possible because gambling produces a surplus with little public investment (e.g., Castellani, 2000). Surplus is understood here as the excess amount of money that remains after all operating costs are deducted from the total revenue. It has been previously suggested that this surplus emanates from low-price elasticities, market restrictions and barriers to entry, the overconsumption of gambling by those persons who gamble excessively, as well as economies of scale related to the overall volumes of gambling, and particularly the share of fast games (Sulkunen et al., forthcoming; Young & Markham, 2017). Nevertheless, no literature is currently available on whether different systemic arrangements in organizing gambling play a part in how much surplus is raised.

The advantages and disadvantages of different regulatory regimes have been previously discussed particularly in the European context, where a burden of proof has been put on the European Union (EU) Member States to show a causal link between their chosen gambling regime and the reduction of the negative externalities related to the activity (Littler, 2011). However, research on the capacities of different regulatory frameworks in preventing gambling-related problems, channeling demand to legal offer, and producing revenue has been somewhat inconclusive (e.g., Borrell, 2008; Chambers, 2011; Planzer et al., 2014; Planzer & Wardle, 2011; Sulkunen et al., 2019). This situation is because of issues such as problems of comparability between companies and jurisdictions, differences in how regimes are implemented and controlled, the consumer protection measures they propose, and what kind of gambling products are offered (see Sulkunen et al., 2019). Overall, monopolistic regimes are more common in lottery-type gambling, whereas licensed offer is more common with casino and betting type gambling (Nikkinen, 2014). Licensing has also become increasingly popular in online gambling provision (e.g., Gidluck, 2018; Sulkunen et al., 2019).

In online gambling, licensed configurations may be more efficient in producing public revenue as much of gambling on illegal offer is channeled to license-based markets (Abovitz, 2008; Marionneau & Järvinen-Tassopoulos, 2017). However, in certain cases, such as in Italy, the rise of legalized gambling has been accompanied by a parallel rise in illegal gambling, as well as declining public revenue because of an increase in online gambling that was taxed at different rates before the system was reformed (Rolando & Scavarda, 2018). As for land-based gambling, Chambers (2011) compared how much revenue different types of gambling regimes produce depending on welfare state regimes adopted from Esping-Andersen (1990): liberal, social democratic, corporatist, and liberal-corporatist. Although highly general in

nature, the results of this analysis showed that while more liberal regimes produced more gross gambling revenue (GGR = total wager minus winnings returned to players) per capita than corporatist or social democratic regimes on average (with the notable exception of Finland, which has a comparatively high availability of gambling), figures also varied between game product types. The share of this revenue that is directed back to society may be subject to important variations depending particularly on taxation rates, operating costs, and the share of company profit (Marionneau & Nikkinen, 2020a; Sulkunen et al., 2019). These also vary between game types. Lotteries have been described as a particularly cost-effective way to produce surplus owing to their low return rates (McGowan, 2001), but other research has shown that fast games, such as electronic gambling machines (EGMs), produce a more significant surplus owing to greater volumes (Nikkinen & Marionneau, 2021).

This type of “efficiency” in terms of raising monetary surplus should nevertheless not be taken at face value. Efficiency in financial terms also means efficiency in terms of generating gambling-related harms. According to the *availability theory* or the *total consumption model* (TCM), an increase in gambling opportunities leads to increased participation and harm (Abbott et al., 2016; Rossow, 2019; Sulkunen et al., 2019). Furthermore, another issue related to using the state lottery as a motor for raising public revenue is that it is regressive, given that the cost of a lottery ticket is the same for all income groups (Miers, 2013), and socio-economically disadvantaged groups play lotteries disproportionately (Beckert & Lutter, 2013; Henricks & Embrick, 2016; Nibert, 2000). The situation is similar for EGM gambling, where the distribution of expenditure and the socio-economic situation are also highly correlated (Markham & Young, 2015) and consumption is also heavily concentrated in a small population segment (Sulkunen et al., 2019).

The current paper compares the two most prevalent regulatory systems for gambling in Europe, license-based and monopolistic, in terms of how much surplus they contribute to societies, and what kind of factors these amounts depend on. The analysis is based on the financial reporting of two monopolistic gambling companies operating in Finland and Norway (Veikkaus, Norsk Tipping) and on four leading gambling companies operating in a fully license-based Italian market (Snaitech, Sisal, Gamenet, HBG Gaming). After describing the data and methods, we present the results and discuss these from the perspective of the relative advantages and disadvantages of these two models in terms of sums raised to society, problems related to this revenue collection, and notably vested interests related to the gambling offer.

Method

Description of included companies and operating environments

The comparative focus of the analysis is on Finland, Norway, and Italy. The two Nordic countries operate fully state-run monopolistic gambling regimes, while the gambling offer in Italy is based on market-controlled licensing-type provision.

In both Finland and Norway, gambling monopolies have maintained their market positions in most gambling, save for certain sectors of online gambling that face competition in the offshore markets from operators that are unlicensed in their jurisdictions.

In mainland Finland, all legal gambling provision is controlled by the state-owned company Veikkaus. The Finnish system has been characterized as the result of a wish to safeguard its monopoly system against offshore competition (Selin et al., 2019) and comparatively heavy per capital gambling participation. The Finnish monopoly has also been consolidated via a merger of three monopolies in 2017 (Selin et al., 2019). Offshore provision is nevertheless gaining ground. In 2018, approximately 86 percent of the gambling market was controlled by Veikkaus, but in online gambling, Veikkaus only held a 67 percent market share (Veikkaus, 2019). The public revenue from gambling in Finland before the drop following restrictions in offer because of the COVID-19 pandemic, was worth about 2.2 percent of the total tax revenue of the Finnish government (Kotakorpi et al., 2016).

In Norway, gambling is operated by two monopolistic companies, *Norsk Tipping* and *Norsk Rikstoto*. Because Norsk Rikstoto operates only in the tote betting sector, we focus here on Norsk Tipping. Like the Finnish case, the Norwegian monopoly system has also been strengthened in recent years. In 2007, EGM operation was transferred from charitable associations to Norsk Tipping. In the following years, EGMs were equipped with less addictive features and enhanced player protection (e.g., Rossow & Hansen, 2016). Offshore gambling provision is hindered by targeting payment processing channels, but online gambling on unlicensed websites is nevertheless popular, making up an estimated 18 percent of the Norwegian online market (Norsk Tipping, 2019). In Norway, the value of public revenue raised by the two monopolies is equivalent to the value of 0.6 percent of the national budget (Sulkunen et al., 2019), owing not only to the relative wealth of the country, but also to notably lower overall gambling volumes and especially to lesser reliance on highly addictive gambling forms such as EGMs than in Finland (Nikkinen & Marionneau, 2021).

Italy is the largest gambling market in Europe following significant deregulations since 2010, when Italy opened online gambling to licensed operators (Gandullia & Leporatti, 2019). The Italian system is based on concessions both online and offline (529 concessionaries in 2017, the year of the present analysis). The concession system is similar to licensing in practice, although it differs from a legal point of view in terms of whether gambling is commercialized (licensing) or whether operators merely have the right to sell non-privatized goods (concession). While the difference is not relevant in terms of the market status of companies, it is important in the sense that concessions exonerate holders from responsibility on negative externalities caused by gambling (Rolando et al., 2020). The operators that have been awarded a concession in public tenders pay a gambling tax to the state. The EGM sector represents approximately half of the total turnover of the Italian gambling market and consists

of 11 public concessions. The Italian casino sector is small, with only four land-based casinos. The sport and horse betting sectors are the most competitive with 225 concessionaries. The online gambling market is also open to concessionaries (89 in 2017). The lottery is provided by a single concessionaire. In addition to the legal offer, a large illegal gambling sector is also active in Italy, as reported in the Anti-Mafia Commission and Social Affairs Committee's report to Parliament (2016). In Italy, gambling returns amount to approximately the value of two percent of total taxation (Gandullia & Leporatti, 2019). The financial crisis of 2008–2010 did not negatively affect gambling consumption in Italy. Quite the opposite, certain gambling sectors even performed better (La Rosa & Bernini, 2018).

The Italian companies included in the analysis are four companies operating mainly in the large EGM sector (Snaitech, Sisal, Gamenet, and HBG Gaming). Owing to data availability issues we were not able to include the Italian market leader IGT, formerly Lottomatica (28 percent market share), in the analysis. The included companies from Italy, Finland and Norway are described in detail in Table 1.

Data

The data are drawn from publicly available annual reporting of the included seven companies. The main data source consisted of company income statements (IS) (consolidated income statement in the case of the Italian companies) that are published annually by each operator and give an overview of the companies' financial situation. The year used was 2017 because of reporting cycles: this year was the most recent fully-available reporting year during data collection. The IS tell us how much of the total gambling revenue (total revenue, R) is returned as winnings, how much remains with the company (the gross total revenue, GTR, including gross gambling revenue and other company revenue), how much is paid in operating costs (C), and how much is contributed to society via taxation (T), license fees, dividends,

Table 1
Companies Included in the Analysis

Company	Game product portfolio	Market share (legal)
Veikkaus (Finland)	EGMs, lotteries, scratch cards sports/horse betting, casino, online gambling	100% (mainland)
Norsk Tipping (Norway)	Lotteries, scratch cards, sports betting, low-risk EGMs (Rossow & Hanen, 2016), online gambling	65%
Sisal Group (Italy)	Numerical Totaliser Games, online gambling, EGMs	8%
Snaitech Group (Italy)	Sport/horse betting, online gambling, EGMs	12%
Gamenet Group (Italy)	Sport betting, online gambling, EGMs	7%
HBG Gaming Group (Italy)	Sport betting, online gambling, Bingo, EGMs	4.5%

Source: Annual Reports

or earmarked contributions (EC). We use GTR rather than GGR, because the share of other revenue sources is negligible for the included companies, but relevant because they are taken into consideration in company IS reporting when counting the share of costs and profit. The share of GGR from different game products is also available for the included companies, allowing us to take into consideration the impact of game portfolios in the total contribution to society.

To compare the IS data reported by the included companies, we first built a comparative model. Despite a seemingly technical-rational structure, financial statements are based on social definitions that may have multiple interpretations (Annisette & Richardson, 2011; Ansari & Euske, 1987). Financial reporting is therefore not based on “indefeasibly correct” classifications, but rather on institutional practices (Leung, 2011). Although items included in income statements are based on international accounting standards, the companies have used differing accounting methods. As Veikkaus and Norks Tipping are fully state-owned, they record total wagers in the Revenues (R) and the winnings in the costs. The included Italian companies only record the fees they receive for operating gambling activities on behalf of the state in their total revenue. Winnings are not reported. To achieve data comparability, we used the Nordic companies’ IS as a model and, using the information contained elsewhere in the Italian companies’ annual reporting (financial and non-financial statement), we adapted their IS to be comparable.

Because our data are cross-sectional and only consider the year 2017, we have assessed the robustness of the figures by checking the three years’ EBITDA (earnings before interest, tax, depreciation, and amortization), the year before and the year after (i.e., 2016-2018). The EBITDA figure shows how much money a gambling operator can generate from its operations, while being independent of non-operational variables such as earlier investments, financial costs or revenues, and taxation. It is convenient and used in comparisons between companies operating in the same business sector, since it eliminates the effects of financial and capital expenditures. The EBITDA analysis showed that 2017 was not exceptional. The only exception relates to certain Italian companies with significant differences between 2016 and 2017, but we did not consider them relevant because such changes were related to mergers and acquisitions operations that did not affect the gambling activities.

We compare the financial figures using euro values rather than standardized purchasing power parity (PPP) euros as the focus is on comparing operators rather than national markets. Finland and Italy are both Eurozone countries. The amounts reported by Norwegian companies in Norwegian crowns (NOK) have been converted to euro using the currency exchange rate of the 31 January 2017. Using absolute euro amounts makes the figures of particularly Norwegian companies appear disproportionately large in relation to their purchasing power. This is taken into consideration in the analysis that focuses more on comparing ratios than monetary values.

Analysis methods

The analysis focuses first on identifying the total contribution to society from the operations of the included gambling companies, and second, on analyzing the reasons for these by measuring the levels of surplus from gambling (Sg) against game product portfolios, operating costs, and the share of private profit in the operation of gambling.

The total contribution to society, or the surplus from gambling (Sg) is here counted as a sum of several items included in the IS: taxes, license fees, dividends to public shareholders, and direct or earmarked contributions. Sponsorships are here excluded from the societal contribution as these are categorized under advertisement costs. The included countries differ in terms of how Sg is collected. In Italy, the bulk of Sg is collected via taxation, while in Norway and Finland earmarked contributions are significant (also Marionneau & Nikkinen, 2020a).

Other items, such as operating costs which could be understood as a contribution through multiplier effects (e.g., Gross, 1998), or winnings back to players were not considered here as a surplus to society as the focus was on the financial benefits to the state and related beneficiaries. Furthermore, previous literature has shown that gambling does not appear to have more significant multiplier effects than other industries, but rather diverts consumption from elsewhere (Marionneau & Nikkinen, 2020b; Rose, 2001). We have also not added taxes paid on gambling winnings to these figures even though such taxes apply in Italy. In the overall Italian market, taxes paid on gambling winnings constituted about 400 million euros in 2017, but it is impossible to estimate these taxes at a company level: Taxes are levied only on gambling winnings exceeding 500 euros, and these are also not reported separately for companies in national tax information.

Another issue that complicated comparability was the fact that a major part of Italian gambling surplus to society stems from so-called “non-tax revenue” products (Lotto, instant lotteries, deferred extraction lotteries and, until 2016, bingo). For these game products, tax is calculated in a residual way by subtracting it from the total amount of bets, the winnings paid to players, and from the commission paid to the operator. These revenues are not reported in income statements and cannot be estimated as part of the surplus to society index. To solve this issue, we focused on Italian companies operating in the so-called “tax revenue” sectors (EGMs, sport and horse betting, card games, etc.) as these taxes are reported.

To enable comparisons, the total contribution to society of the included companies is analyzed as a ratio to company total revenue (R) and gross total revenue (GTR). Relating Sg/R shows the percentage of total revenue that is contributed to society, while relating Sg/GTR shows the percentage of gross total revenue that is directed back to society. The difference between these is that the use of GTR describes how much operators deliver to social or public uses out of their earnings and is less

sensitive to return percentages and different game portfolios than S_G/R (Marionneau et al., 2020).

The results of this comparison are related to three possible reasons that we have identified in our previous studies (Mandolesi et al., 2022; Marionneau & Nikkinen, 2020a; Nikkinen & Marionneau, 2021; Rolando, Mandolesi, et al., 2020): *the game portfolios* and *the operating costs*, as well as private profit.

The game portfolio influences surplus because the winnings paid to players (return to players, RTP) are particularly different between game types. Lotteries and slow games often have RTPs as low as 40 percent of the total wagers, whereas fast games such as EGMs, instant lotteries, many scratch cards, casino and online games have high RTPs of over 90 percent. Therefore, companies with portfolios including a high proportion of lottery games usually as a rule generate higher returns per bet, while companies with portfolios focused on fast games may produce more overall revenue by generating more volume (Marionneau et al., 2020). Because return percentages and game speed appear to correlate positively (Marionneau et al., 2020), we here use RTP as a proxy for the game portfolios of companies.

The operating costs refer to how much cost companies spend on various operating expenses. We first look at the total operating cost burden of the included companies by comparing total costs (C) to GGR as well as comparing C to total gambling surplus to society (Sg). A more detailed analysis is offered by looking at the most important cost categories of gambling providers (Marionneau & Nikkinen, 2020) that draw from value chain analysis (e.g., Bair, 2009; Kaplinsky, 2000). To achieve this, we focus particularly on six categories of operating costs found in IS reporting:

1. Production (game development, material and equipment, organizing game events, etc.);
2. Distribution (commissions to agents);
3. Marketing (marketing costs, sponsorships);
4. Administrative (services purchased, administrative costs);
5. Personnel (salary costs); and
6. Financing (interests paid to banking institutions)

This detailed analysis of the operating costs will allow one to identify not only the ‘efficiency’ of the analyzed companies in terms of their capacity to produce gambling surplus, but also the contribution of the Nordic and Italian gambling industries to business activity and employment.

Private profit compares the companies in terms of how much final profit they produce within the company or as dividends to private shareholders. This process is done by looking at the account profit section of income statements, in which companies detail where profit has been divided.

Results

Total contribution to society

As described above, the surplus from gambling (Sg) is here counted as a summary figure covering taxation, earmarked or direct contributions to beneficiaries, license fees, and dividends paid to public shareholders. The gambling surplus to society is therefore not the same as producer and consumer surplus as used in economics. In (welfare) economics, consumer surplus refers to the excess of willingness to pay over price, or the value to the consumer. In gambling research, the concept has been applied to evaluate the possible benefits of recreational gambling to societies (see, e.g., Forrest, 2013; Rockloff et al., 2019). However, the focus of the current paper is on the monetary benefit transferred back to society in the form of tax or other public or third-sector beneficiaries.

Table 2 details the Sg/GTR and Sg/R ratios for the included companies. In the Italian case, the market is managed fully by private groups of companies operating under public concessions. None of them was owned or even partially controlled by the state in 2017. This fact means that specific gambling taxation and concession fees are the only means for the state to generate revenues from these gambling companies directly. In the Finnish case, Sg consists of taxation and earmarked contributions to third-sector beneficiaries. In Norway, Norsk Tipping does not pay tax but contributes via earmarked contributions and dividends paid to the state.

The results by company indicate that the contribution to society is relatively high for all companies, over 50 percent of GTR. The Italian companies nevertheless appear to

Table 2
The Contribution to Society of Included Companies

Company	Sg/R %	Sg/GTR %
Snaitech (Italy)	9.8	52.5
Sisal (Italy)	12.5	61.2
Gamenet (Italy)	10.0	55.0
HBG (Italy)	12.4	58.6
Veikkaus (Finland)	10.2*	68.9
Norsk Tipping (Norway)	14.8	65.9

Source: Annual Reports

*Prior to 2019, Veikkaus only reported the GGR for EGM and casino games. The R for Veikkaus is based on an estimate presented in Marionneau & Lähteenmaa (2020).

produce less surplus to society than the Nordic state-owned Veikkaus and Norsk Tipping. We will next consider certain of the reasons for these differences and the overall lesser contribution to society of the Italian companies in the next sections focusing on game portfolios, operating costs, and the role of private profit.

Game portfolios

The Sg/R ratios are strongly affected by the return percentages (return to player, RTP) offered by companies, and therefore by game portfolios. The lowest Sg/R rates are therefore found in companies that have a high proportion of continuous and fast game products with high RTR, such as EGMs. The share of EGMs and other fast games in the game product portfolios of the included companies is analyzed separately in the next section. The Sg/GTR ratios eliminate the impact of RTPs (and by proxy game product portfolios) and are therefore more reliable in comparing companies. Table 3 further details the share of gross gambling revenue (GGR) that comes from different game products. These data are also relevant in understanding the levels of costs companies incur.

The differences in game portfolios and their relative weight for each analyzed company explain certain of the main differences. Lotteries in particular have low total RTP rates and generate important returns to beneficiaries and states. For example, in Italy, Sisal holds the monopolistic concession for the national lottery SuperEnalotto in addition to other game products.

SuperEnalotto is exceptionally profitable, particularly to the state, as it generates 400 million euros out of the one billion euros of state revenues arising from Sisal operations. This strength also explains why Sisal slightly deviates from the other Italian companies and partly why the two Nordic companies that also operate lotteries appear to be more profitable in economic terms to their host societies.

Table 3

The Shares of Different Gambling Product Groups of Total GGR by Included Company (2017)

Company	EGMs, casino games, instant games (% of GGR)	Betting games (% of GGR)	Lottery games and bingo (% of GGR)
Snaitech (Italy)	84	16	0
Sisal (Italy)	53	39	9
Gamenet (Italy)	83	17	0
HBG (Italy)	96	1	3
Veikkaus (Finland)	54	12	34
Norsk Tipping (Norway)	22	23	55

Source: Annual Reports

Table 4*The Total Operating Costs of the Included Companies*

Company	C / GTR (%)	C / Sg
Snaitech (Italy)	42.2	0.78
Sisal (Italy)	37.4	0.61
Gamenet (Italy)	43.7	0.79
HBG (Italy)	41.2	0.70
Veikkaus (Finland)	30.7	0.45
Norsk Tipping (Norway)	33.4	0.51

Source: Annual Reports

Operating costs

The analysis of the operating costs appears to explain an important part of the difference between the Italian and Nordic companies' contribution to society included in this analysis: higher operating costs are associated with a lower Sg. Table 4 details the share of total operating costs of GTR for the included companies, as well as a ratio comparing the operating costs to the total surplus to society (Sg).

The table shows that the large Nordic monopolies Veikkaus and Norsk Tipping have comparatively particularly low costs. This situation is likely to be explained by economies of scale owing to their important and protected market position, suggesting that monopolistic operations may be more cost-effective to operate. The varying levels of costs related to their game product portfolios as described above may also be an explanatory reason. Lotteries in particular are less costly to produce than EGM gambling, as there is less need to acquire and maintain equipment or premises such as arcades.

A more detailed description of the different cost items as reported in the income statements of the included companies is presented in Table 5. Here the shares of different cost categories are shown as a percentage of total operating costs.

Overall, the detailed analysis of the company costs shows that the bulk of the higher costs for the Italian operations goes into distribution costs. This description includes the fees and the commissions paid to the retail network (points of sale). The retail network accounts for up to 85 percent of total operating costs in the Italian context, which is significantly more than in the Nordic monopoly systems. In a recent comparison of ten European gambling companies, the Italian company Snaitech also had the highest proportional figures for commissions to agents (Marionneau & Nikkinen, 2020a). This finding was attributed to Snaitech having the densest redistribution network of any company in Italy, at least according to their own financial report. The redistribution networks are also deeply and sometimes explicitly involved in the gambling sector in Italy. For instance, the FIT (Italian Tobacco Shop Federation) is a shareholder of Lotterie Nazionali,

Table 5
Shares of Different Cost Elements of the Included Companies

Company	Production/ C* %	Distribution/ C %	Marketing/ C %	Admin/ C %	Personnel/ C %	Finance/ C**
Snaitech (Italy)	6.4	72.6	2.1	4.2	6.4	5.1
Sisal (Italy)	19.7	38.0	5.2	15.4	13.4	8.7
Gamenet (Italy)	7.8	70.2	1.0	3.6	5.6	2.8
HBG (Italy)	4.4	85.5	0.0	0.0	7.4	0.0
Veikkaus (Finland)	11.1	29.9	5.7	3.9	19.4	0.0
Norsk Tipping (Norway)	1.3	29.1	15.1	2.9	15.2	0.2

*N.B., company total cost figures do not add up to 100 percent because companies also report varying amounts of unspecified “other costs and expenses” that cannot be categorized.

**interest expense and other financial costs are reported in a separate section of income statements than operating costs. They are not included in the total costs but their value is related to them. They are nevertheless considered operating costs rather than private profit because the banks are not owners of the gambling companies.

a limited company of the Lottomatica Group that operates as the monopolistic provider of scratch and win -tickets.

In the Finnish and Norwegian monopoly systems distribution expenses, while still the most significant category, only account for approximately 30 percent of total operating costs. Part of this difference between Italian and Nordic contexts can be explained by the different operating logics. The Nordic companies pay a higher share in personnel costs than the Italian operators, suggesting that many operations that are outsourced in Italy to the distribution network are maintained in-house in the Nordic case. For example, Veikkaus directly employs gambling arcade and casino employees, although it outsources most of its EGMs to fuel stations, kiosks, and groceries. Salary costs of top-level management in the Finnish case are also important. The salary of the Veikkaus CEO is 320 000 EUR a year, plus potential bonuses, whereas the Norsk Tipping CEO was remunerated at only around 200 000 EUR a year. The inclusion of tote betting products in the Veikkaus product portfolio but not in that of Norsk Tipping is probably not the sole explaining factor, as Norway in general has higher salary levels than Finland.

Finance costs, while not a part of total operating costs, are another category that stands out in the Italian case. While the Nordic operators have highly limited interest payments related to their financing, the Italian companies (besides HBG Gaming) have interest expenses that represent three to nine percent of the total costs. This distinction appears as the most important difference between the private and public operation logic of the Italian concessionary system and the Nordic monopoly system. Because they are not state-owned, Italian groups need to resort to banking institutions to find the necessary source of liquidity for their daily operations. This funding engenders interest expenses. Furthermore, in the last ten years, many of these groups—including Lottomatica, HBG Gaming and Snaitech—have carried out several merger and acquisition operations and, to accomplish these, they have incurred important debts. These interest expenses show that the financial sector is

one of the most relevant stakeholders behind gambling operations in Italy. This is not only because of the high interests related to the significant loan of the Italian gambling companies, but also because banks and international investment funds are in certain cases direct or indirect shareholders of the Italian gambling groups (Mandolesi et al., 2022).

Beside personnel expenses, the Nordic monopoly companies somewhat surprisingly also spend a higher proportion of their total operating costs on marketing and sponsoring than the Italian companies. None of the four Italian companies reports any sponsorship costs in their income statements. Veikkaus and Norsk Tipping both use about one-fourth of their total marketing budget on sponsorships, although in Finland this practise is often referred to as ‘product information’ and not marketing *per se*. Marketing of betting and gambling, including sponsorships have been banned in Italy since July 2019 (enforcement of Law 96/2018), but this shift should not have affected our data from 2017. Even without accounting for sponsorships, the Nordic companies spend more on marketing. This result suggests that a monopoly system alone does not appear to protect consumers from aggressive advertisement of gambling, but possibly needs widespread marketing to maintain the monopolistic position particularly in the face of increasing offshore competition online.

Normal profit

Opening gambling markets to licensing has been opposed particularly in the Nordic contexts as this is feared to direct profits into private pockets (e.g., Egerer, Alanko et al., 2018). Table 6 details the amounts of *normal profit* and the share of dividends to any private shareholders in the included companies. Normal profit covers interest or dividends to private investors and shareholders as well as assets reserved in company balances. It is a necessary part of the companies’ total revenue to maintain them in business. The table shows that, again somewhat surprisingly, the share of private profit is particularly minimal in both contexts and the remuneration of the private actors does drain a relevant part of economic value from the community.

Table 6
Private Profit Generated by the Included Companies

Company	Remaining profit / GTR, %	Dividends to private shareholders / GTR, %
Snaitech (Italy)	1.5	0.0
Sisal (Italy)	1.6	0.0
Gamenet (Italy)	0.1	0.0
HBG (Italy)	0.4	0.0
Veikkaus (Finland)	1.0	0.0
Norsk Tipping (Norway)	0.4	0.0

Source: Annual Reports

Private profit therefore does not seem to explain the difference in how much companies contribute to societies in terms of gambling surplus.

Rather, the comparison shows that while Italy operates a concessionary system that is similar to licensing, the companies are highly restricted institutionally because of the high level of gambling-specific taxation and license fees. For this reason, both the costs and the remuneration (provided for by concessions) for the private companies for carrying on the activities of gambling market remain relatively low. A further reason may be related to transferring profits to subsidiaries, but whether this is the case cannot be determined with our data.

It is also worth noting that account profit is influenced by several factors, such as the overall efficiency of the company, and year-specific events such as merger and acquisition operations, litigations or unexpected costs. However, the EBITDA check conducted for this study did not indicate that 2017 was an exceptional year in this regard. Furthermore, the Italian companies are subject to covenant, namely provisions contained in the loan agreements signed with banks that set limits to the payment of dividends to shareholders. This practise may explain why no dividends have been paid.

Discussion

The results have shown that, overall, the Nordic monopolistic operations appear to be more effective in terms of producing gambling surplus to society than the Italian license-based companies. We have analyzed whether this difference is because of differences in game product portfolios, differences in operating costs, or differences in the levels of normal profit. The analysis shows that the role of operating costs appears to be the most important factor that explains this difference: while Italian companies contribute around ten percent less to society in gambling surplus (Sg), these companies pay an equivalent of approximately ten percent more in operating costs. However, the bulk of these extra operating costs in Italy in comparison to the Nordic companies comes from the distribution costs. This fact means that this money does contribute to society via employment as well. The result might indicate a need to rethink how contribution to society is counted by also taking into consideration the role of multiplier effects in the economy. However, such an approach is complicated by the fact that there is no evidence currently to substantiate that gambling would produce more significant multiplier effects than another economic sector. Instead, gambling appears to substitute consumption from other industry sectors (Marionneau & Nikkinen, 2020b). The Italian figures also do not include taxes paid on gambling winnings.

The analysis nevertheless suggests that there is little overall difference at best between the investigated monopolistic and license-based operations in terms of how much companies directly contribute to society, although the means through which this is accomplished appear to differ. At least in the Italian case, heavy taxation of the surplus that depends on the total result of the companies translates into an

institutional effect that evens out the role of private profit. We have shown that the role of normal profit is minimal for both the Italian and Nordic companies. However, the Italian companies do have more important financial costs to banks related to funding their operations. The finding may reflect a more general tradition in the Nordic countries to let governments control the administration of revenues even to the third sector, while in Italy such a centralized approach may not be as well accepted. The finding also contradicts the assumption that private gambling operations do not generate public revenue enough to be justifiable in terms of revenue collection. Instead, and much like in the case of preventing problem gambling (Sulkunen et al., 2019), both licensing and monopolistic regimes may be effective in producing public revenue, employment, or both.

This revenue collection is nevertheless not without problems. Gambling is linked with a range of individual and social harms, including poor health, poverty, relationship problems, crime, inequality, increased risk of suicide, and even cultural and environmental detriment (Livingstone & Rintoul, 2020; Orford, 2020; Sulkunen et al., 2019). In 2019, 3.0 percent of the Finnish population were estimated to have a gambling problem (SOGS 3+) (Salonen et al., 2019). In Norway, the latest population study showed that 1.4 percent were problem gamblers (CPGI 8+), with a further 3.1 percent being moderate risk gamblers (CPGI 3–7) (Pallesen et al., 2020). In the Italian population study from 2017, 2.4 percent of the population were classified as problem gamblers (CPGI 8+), while 5.9 percent were classified as moderate risk gamblers (CPGI 3+) (Cerrai et al., 2018). At a population level, aggregate harms of non-problem gamblers have furthermore been found to exceed those accruing to problem gamblers by 4:1 (Browne et al., 2017). Gambling, and not only problem gambling, can therefore cause harms at even a low or zero level of active participation that is not visible in population studies (also Abbott et al., 2013; Langham et al., 2016; also Raisamo et al., 2014). For example, in the Finnish population study, 11 percent of the population experience gambling harm directly, with an additional 12 percent of family members or friends experiencing harm because of the gambling of others (Salonen et al., 2019). The efficiency of gambling regimes to collect public revenue is therefore not only a positive outcome, but also reflects a high total consumption, and following the total consumption theory, also higher related harms (Sulkunen et al., 2019).

Furthermore, while the connection between gambling and public finances can equate the provision of gambling with the idea of advancing the public good, the collection of this surplus is connected to institutional-level problems (also Nikkinen & Marionneau, 2014). Peter Adams (2007; 2016) has argued that the reliance on gambling to fund societal causes may corrupt the democratic process, while the reliance of researchers on gambling funds may endanger academic integrity. Walker and Calcagno (2013), for example, have shown the corrupting effect of fiscal interests in gambling at the governmental level in the case of the US casino industry. Julie Smith (1998) has further shown that the collection of tax revenue via gambling is not only more expensive than most other taxes but gambling also creates other social

costs that further erode the possible surplus to societies. This puts into question whether the surplus from gambling is even as significant as expected.

These issues highlight the importance of political and commercial determinants of health related to gambling provision, and particularly the institutional role of governments and regulators in opting to either advance revenue collection or to promote restrictions to protect the public health, even at the expense of losing in monetary efficiency. For instance, the choice to promote increasingly fast and continuous game products may appear to be a rational decision from the perspective of increasing profitability or channeling consumption away from unlicensed operators, but less so from the public health perspective. Such a systemic logic is part of the institutional set-up that may work against the general interest (Nikkinen & Marionneau, 2014; also Egerer et al., 2020). Governments may be tempted to “both have their cake and eat it” (Adams et al., 2009) by benefiting from gambling revenue, and only introducing consumer protection measures that have limited effect. Since the total consumption model (TCM), i.e., the notion that increase in addictive consumption also leads to increase in harm, also seems to apply in gambling (Rossow, 2019; Sulkunen et al., 2019), it would be in the interest of governments to have people gamble less to decrease harms at the population level. Increased gambling therefore offers contrasts with gambling harm reduction and protection of public health (Schalkwyk et al., 2019).

The current study has used the income statements of Italian, Finnish, and Norwegian gambling operators to compare the financial surplus directed to societies under differently organized gambling regimes. As such, the study has been limited to only these contexts, and further studies should expand the analysis to a wider sample of companies to generalize the results. Of particular interest would be to expand the approach to contexts such as Australia with a more oligopolistic system of gambling provision, or Canada where state-owned enterprises operate gambling quite similarly to the Nordic countries. The use of financial statements as a data source has also been challenging owing to differing accounting standards, reporting practices, and categorizations, resulting in a high level of generalizations particularly in terms of the operating costs to ensure comparability. Additional data would also be needed to account for the investments made in gambling companies. This study has, however, summarized the main items reported in the income statements and as such offers a comprehensive picture of the money earned and spent by gambling companies during a financial year and has identified the main differences between the operation logics of the Italian and Nordic companies.

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