MACROECONOMIC LEGITIMACY OF INVESTMENT IN THE DEVELOPMENT OF GOLF TOURISM IN ISTRIA

ABSTRACT

Besides revealing the position of Croatian golf in the world, the statistics disprove the old prejudice on golf as a game exclusively for the upper social classes because it proves golf to be a mass game, generally available to anybody in modern western Europe. Croatia is obviously underdeveloped in space and time. It is a fact that Croatia has had an excuse for a decade of lagging behind in the after-war period, but there are no excuses for being the only state without a plan, doing nothing to change that. Croatia did not learn the lesson from its tourist past on the example of tennis (which used to be considered a hobby for the rich) or nautical tourism (with millions of “ordinary” people sailing on the Adriatic today). Golf is today what tennis or nautical tourism used to be. The first part of the paper deals with the analysis of the influence of golf tourism on the extension of the tourist season, the attraction of tourists with better purchasing power, the growth of tourist offer quality, the increase in the number of tourists, growth of employment and the increase of foreign investments. Istria could greatly benefit from this concept, which should be systematically analyzed in order to get a clear picture of how justified it is to create an Istrian golf region. The second part of the paper is analyzing the macroeconomic benefit arising from the development of golf in Istria. Considering the fact that the investments in the construction of the Istrian golf region have not yet begun but are only being argued in this paper, we used the historical scientific method. A dynamic projection was made giving an insight into potential changes in the GDP had the investments in golf begun in 2004 as planned.

JEL: E22, O11, O16

Key words: Macroeconomic effects, golf tourism, tourist offer, entrepreneurship, Istria, investments, GDP.

1. INTRODUCTION

Golf courses in the continental part of Europe are closed (because of the weather) from October to April so that thousands of golf tourists come to the Mediterranean looking for open golf courses. Having recognized the economic potential of golf and analyzed the profile of the average European golfer, some regions decided to improve their existing tourist offer with a larger number of golf courses.

The main goal of this selective form of tourism is attracting tourists in the off season period from October to April, when golfer in the continent cannot find any open golf course.

Although today there are several tourist regions which extended their season with golf, the best known is certainly Algarve in Portugal. Some twenty years ago it was a tourist region like any other, with constructed tourist capacities and a pleasant climate. The local population

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was mainly employed in tourism. However, tourism was purely seasonal, only in the summer, and the tourists were also becoming more demanding, asking for new ancillary facilities. In order to increase the tourist consumption and extending the tourist season while at the same time putting the accommodation capacities to a better use, the Algarve region began with serious investments in golf, fully supported by the local and state authorities.

In a short period about twenty golf courses were built, earning the Algarve region the epithet of the best and most desirable golf destination both in Europe and in the world. The effects in regional tourism did not fail to appear: the season was extended with a better use of the existing accommodation capacities, the tourist offer gained in quality and exclusiveness, tourists with better purchasing power were attracted, there was an increase in the regional GDP, a growth of employment and a total reorientation of the regional economy to an all-year-round tourism.

Istria is today what Algarve used to be twenty years ago: a relatively developed tourist region with good quality accommodation capacities for mass tourism, gaining an identity recognizable all over Europe and looking for ways to improve its tourist offer by raising the service quality, not aspiring to mass tourism that only offers a bed and the sea, and having exceptional climatic, transport and tourist prerequisites for the creation of an Istrian golf region. What needs to be pointed out is the possibility to play golf all year round, good transport connections as well as optimal hydro-meteorological conditions.

Considering certain negative connotations brought forth by the recently passed law on golf courses (i.e. some of its parts), the authors of this paper consider themselves neither for nor against the mentioned law. In the research, the authors are simply discussing the role and effects of golf tourism on single regions, the Istrien county in this particular case, and are thus aiming at pointing out the importance of golf tourism as a form of economic and tourist activity.

2. BASIC ECONOMICS OF A GOLF COURSE

2.1. Golf course as an investment or entrepreneurship enterprise

Opening a golf course is a relatively expensive investment demanding a large, single, starting investment. Investing in golf courses encompasses the following aspects:

Course location: first of all, an adequate location has to be found, where construction is possible (sufficient area, clean property, availability of a sufficient quantity of water, transportation, climatic and geomorphological prerequisites…) but there is also need (larger urban centers, tourist centers) and support (local authorities and population) to the construction of golf courses.

Terrain for the golf course: although some investors buy the whole area of land where the golf course is going to be built, most investors prefer leasing the terrain, i.e. obtaining a concession. They arrange for a yearly rental per hectare of land of the future golf course. However, investors usually buy part of the land where they build the clubhouse with other ancillary facilities (restaurant, pro shop, tennis court, pool, parking lot). Besides, the investors want to buy a broader strip of land around the course in order to build apartments for sale or rent. It is not unusual for the area of that type of land to be greater than the golf course itself.

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Necessary documentation: it is generally the greatest obstacle to the construction of a golf course requiring time and money. For that reason the investors prefer the locations with existing documents and are willing to compensate for the costs.

Golf course design and the making of a detailed plan: an important task usually given to world famous golf course designers. Considering the given location and its landscape, the designers have to integrate the course, design its shape and length of holes, place the obstacles (water, woods, trees, sand) in order to increase the difficulty of the course but also for economic reasons.

Infrastructure construction accounts for most part of the investment including: the construction of the golf course (preparation of the land, installation of the system of irrigation and drainage of rainwater, etc.), practice golf course (driving range, practice green, practice sand bunker) and the ancillary infrastructure: parking, clubhouse, restaurant, pro shop, equipment rental facility, storage for the material needed in the maintenance of the course and other consumables (fertilizers), bathrooms, a couple of apartments, garage for golf carts, other sports facilities (tennis, pool...), casino or similar.

Golf course maintenance equipment is also not a financially negligible item. There are particular machines for mowing and rolling grass, for smaller diggings, automatic irrigation, golf carts, ball collecting machine on the driving range, machine for the rental of practice golf balls, etc.

Goods for sale and rental: every golf course has to have its pro shop (shop specialized in the sale of equipment for golfers: from clubs to balls) as well as equipment for rental (carts, sets of golf clubs, balls for the driving range).

The total amount of the investment needed to build a golf course cannot be defined unambiguously because every location has its economic peculiarities that significantly affect the amount of the investment: lease and price of the land, availability and distance of building material, necessary construction work, customs, labour cost, public costs, etc.

One of the world famous golf institutions, The Golf Research Group, recorded the total costs of golf course construction in a range from 15 000 EUR to 375 000 000 EUR spent to build the Pete Dye golf course in Japan on the flattened top of a mountain. The same institution made an analysis of the costs for golf courses built in Great Britain during the golf-boom in the nineties. The analysis showed that the golf courses are built with average costs amounting to 6 000 000 EUR. The price includes the cost of construction of the mentioned infrastructure and the purchase of the necessary equipment.

Although the final value of the investment depends on the quality of the golf course being opened, the quality of the additional contents, the expected value of the investment in the construction of a golf course in Croatia is a bit lower, around 5 000 000 EUR. The reason for that is cheaper land or its lease, non existent competition, which will result in the beginning with a more modest infrastructure, cheaper labour and construction material and similar.

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2 A greater number of artificial lakes on the course means greater reserves of water (rainwater) that will serve to irrigate in periods of draught, but it also means a greater sale of golf balls: the more lakes on the course the greater the possibility for a golfer to lose a ball.

3 A well-built system of rain water drainage enables golfers to continue playing only two hours after heavy rain.

3. PROJECTION OF MACROECONOMIC BENEFITS OF AN ISTRIAN GOLF REGION

This part of the paper presents a quantitative projection of the influence of the Istrian golf region on an increase of direct investments, tourism and employment.

The following analyses will use certain assumptions which were proved in the paper so far and are systematically mentioned:

- Golf is not developed in Istria and there are too few players in order to make an investment in a golf course profitable on the grounds of the domestic players’ consumption.
- Istrian tourist enterprises, because of priorities such as raising the quality of their accommodation capacities and general indebtedness, do not have the necessary capital for an investment in Istrian golf.
- Therefore, the investors will be foreign physical and legal persons.

From all of the above we can conclude that the existing minor market of domestic golfers is of no interest for foreign investors and they will not invest before securing a good background in their country. First of all, there will be a connection of the investor with the golf tourism market in his country through tourist agencies, with the aim of securing excursions and holidays of a sufficient number of golf tourists from his country on his course in Istria. We can also conclude that the investor will start with the investment only when there are sufficient indicators that such an investment will be profitable in reasonable time, i.e. when he secures a golf tourist market for himself.

3.1. Golf course income

The overall income of a golf course has the following structure:

- **Green fee** (the price for a round on 18 holes) is the main source of income for a golf course. The green fee is formed\(^5\) on the basis of the competitor’s prices, demand for golf, quality of the course, etc. Considering the fact that American golf is more developed than the European, it is not surprising that the average green fee in the US\(^6\) is 23.50 USD, i.e. 18.50 EUR, while the European average\(^7\) is 32 EUR. Great Britain and Sweden have the lowest green fee in Europe (around 25 EUR) while Switzerland is the most expensive (around 45 EUR), followed by tourist countries like Portugal (42 EUR) and Spain (37.50 EUR). Since the Istrian golf region must take over part of the golf tourists, in forming the average green fee in the Istrian golf region, besides the quality of the course, one must take into consideration the prices of the competitor countries in the neighbourhood: Slovenia (38 EUR), Austria (36.50 EUR) and Italy (34 EUR). Therefore, we can expect the average green fee in Istria to be around 35 EUR. The total income from the green fee is directly proportional to the number of rounds played on a course in a year.

- **Registration and membership fees**: In the US and Great Britain this type of income represents an important portion of the overall income. As a matter of fact, the local population is offered a membership in the golf club (registration fee) so that by paying the one-time yearly membership fee they have the right to play on the golf course without paying the green fee and with other benefits or discounts. In Great Britain the

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\(^5\) Although the green fee varies according to the season, days of the week (weekends and holidays are more expensive), the mentioned amounts are yearly averages.
\(^6\) http://www.egia.org.uk
average registration fee is around 2,300 EUR, while the yearly membership fee is around 1,150 EUR. This arrangement is acceptable to the local golfers who play golf at least once a week. Considering that there are currently around 50 active golfers in Istria, this type of income, in a mid-term period, will not be significant in the structure of the overall income of golf courses in Istria.

- **Income from the driving range** regards tokens for practice balls. This income mainly depends on the number of rounds played in a year because before going out on the course, golfers usually warm up on the driving range shooting balls (1-2 buckets at a price of 2 EUR, i.e. 25-80 balls). The expected income is about 3.50 EUR per round, if we use indicators by the American Golf Foundation, which say that the driving range income is about a tenth of the green fee income.

- **Equipment rental** (golf carts, trolleys, golf equipment) is an important part of the income in USA and in European tourist golf destinations. Although a vast majority of golfers have their own equipment they carry around when traveling, the income from the rental of trolleys and golf carts should be relatively significant because, in the case of the Istrian golf region, the majority of golf rounds would be played by golf tourists and not local golfers. According to the indicators from the American Golf Foundation, rental income is around 4 EUR per round.

- **Income from equipment sale** (from consumables like balls or gloves, to more durable equipment like clubs and trolleys) is also an important item because on average, the sold goods account for around 15% of the green fee price, i.e. around 4 EUR per round.

- **Restaurant’s (caterer’s) income** is the most important item after the whole round. According to the indicators from the American Golf Foundation, a golfer spends around 40% of the round price per round on average. In our case, the expected consumption of a golfer on food and drink at the 19th hole (restaurant) is around 14 EUR.

- **Other income** like the one coming from the organization of golf courses for learners of the organization of tournaments have been estimated at about 8-9% of the round price, i.e. about 3 EUR. This income also includes income from sponsors that are very significant abroad. Considering that the popularity of golf is not so felt among the domicile population, we can conclude that the income of domestic interested sponsor will be equally low, although it cannot be ruled out.

If we sum up the mentioned income item, we can estimate the expected direct golf course income at 63.50 EUR per round of golf. It is important to point out that in the structure of the expected consumption only 55% of income (35 of 63.5 EUR) comes from the charge on the round price while the rest of the income comes from the usual additional activities.

In this estimate the income from the registration fee, membership fee and sponsors was not taken into consideration because it is expected to be of little importance in the first phase of the Istrian golf region development due to the fact that it depends on the number of golfers among the local population and not on the number of rounds played by the golf tourists. The issue of foreign sponsors is still open.

With the assumption that golf tourists will be realizing the most part of the turnover, i.e. rounds played, it can be expected that the tourist agencies will get a commission on the golfers they bring, so that the estimate of the expected income per round, for the needs of this paper, is 60 EUR.
3.2. Estimate of the influence of the creation of a golf region on tourism

The key question for further estimates of economic consequences of the creation of an Istrian golf region on its tourism regards the number of golf tourists who will spend their holidays in Istria, i.e., the number of golfers that will be attracted by the Istrian golf region and thus taken over from the other existing golf regions.

The investor in golf courses will try to secure a market for himself, i.e., such a cooperation with tourist agencies that brings a sufficient number of tourists – golfers in order to return the investment in reasonable time.

Considering the height of operative costs for the maintenance of an average golf course and the estimate of the income from a played round (60 EUR) given in the preceding chapter, we arrive at the number of 15,000 rounds played a year as the minimum at which the whole investment is profitable. This estimate is based on the generally accepted opinion that the golf course alone is not a sufficiently profitable investment: the aim is to have the golf course cover its costs while the profit is to be made on the renting of accommodation in hotels, villas and bungalows whose sale is also possible (for example through time-sharing).

Furthermore, it is clear that the number of rounds will be gradually increasing over the years so that an average of at least 20,000 rounds played per course can be expected in a year. This assumption is confirmed by the following data:

- the Austrian Bad Griesbach opened a maximum of 6 months has an average of 21,000 rounds played a year per course.
- The average in the Algarve golf region is 37,000 rounds played a year.

What is more, with 20 golf courses in the Istrian golf region, we can assume that the total number of rounds played will be about 400,000 a year, which is the basic parameter for the estimate of the influence of an Istrian golf region on tourism.

In part 3.1. of this paper we showed that the average income of a golf course per one round is around 60 EUR, including green fee, equipment rental, catering on the course. On the grounds of experience in the Algarve golf region, if we add to that the consumption of the golf tourist outside the golf course (accommodation, non-board consumption, etc.) we arrive at the final estimate of around 120 EUR per golf tourist a day.

Since one played round corresponds to an overnight stay of a tourist with an expected daily consumption, if we multiply the total number of rounds played (400,000) by the daily consumption of 120 EUR, we can expect an income of Istrian tourism of 48,000,000 EUR a year.

The experience and data we have from the Algarve golf region also tell us that golf tourists usually do not come alone but bring their families. Therefore, we can assume that each golfer will bring at least one more tourist with a similar purchasing power whose daily consumption does not include the costs of golf and is probably around 60 EUR (the expected daily consumption of 120 EUR minus the consumption of the golf course of around 60 EUR). Since the number of overnights of such tourists is equal to the number of overnights of golf tourists, we can calculate their consumption if we multiply the expected number of rounds, i.e. overnights (400,000) by the expected daily consumption of 60 EUR. In this way we can estimate the total income of Istrian tourism generated by tourists accompanying golf tourists at around 24,000,000 EUR.

The final estimate of the direct influence of the Istrian golf region on Istrian tourism is equal to the sum of the expected consumption of golf tourists (48,000,000 EUR) and their family or friends (24,000,000 EUR), which amounts to 72,000,000 EUR.
The total tourism revenue of the Republic of Croatia in 2003 was 6.4 bn USD, i.e. 5.1 bn EUR. Since Istria accounted for 27.5% in the total number of tourists visiting Croatia in 2003, with 34.8% of the total number of overnights in Croatia, we can conclude that the total tourism revenue in Istria is, proportionally, 1.8 bn EUR a year.

From all of the above we can conclude that the creation of an Istrian golf region would directly increase Istrian tourism revenue by at least 4%, explained by the difference between the real and the registered number of overnights.

3.3. Estimate of the increase in direct foreign investments

Since in the case of the Istrian golf region we will have only foreign investors, it is clear that the total investment in Istrian golf will represent a direct foreign investment in Istrian tourism ad therefore in its economy.

The total investment amount needed to build a golf course cannot be defined unambiguously because every location has its economic peculiarities that significantly affect the amount of the investment: lease and price of the land, availability and distance of building material, necessary construction work, customs, labour cost, public costs, etc.

One of the world famous golf institutions, The Golf Research Group, recorded the total costs of golf course construction in a range from 15 000 EUR to 375 000 000 EUR\(^8\) spent to build the Pete Dye golf course in Japan on the flattened top of a mountain. The same institution made an analysis of the costs for golf courses built in Great Britain during the golf-boom in the nineties. The analysis showed that the golf courses are built with average costs amounting to 6 000 000 EUR. The price includes the cost of construction of the mentioned infrastructure and the purchase of the necessary equipment.

Although the final value of the investment depends on the quality of the golf course being opened, the quality of the additional contents, the expected value of the investment in the construction of a golf course in Croatia is a bit lower, around 5 000 000 EUR. The reason for that is cheaper land or its lease, non existent competition, which will result in the beginning with a more modest infrastructure, cheaper labour and construction material and similar. The average investment of 5.000.000 EUR per course, besides the construction of the golf course and the purchase of the equipment for its maintenance, also includes the construction of the ancillary infrastructure like restaurants, warehouses, parking lot, etc.

Since the golf course alone is not a sufficiently profitable investment, the investors always calculate with the construction of additional accommodation buildings: high category hotels, motels, villas and bungalows. As it is common knowledge that the construction of a golf course will cause growth of the prices of real estate in its vicinity, the investor usually buys the land surrounding the golf course to be able to build the mentioned objects on it, which is in the end the core of profitability of the total investment.

Although it is possible for the investor to buy certain existing accommodation facilities and refurbish them for his clients, we presume that the majority of investors will decide to build new buildings on the newly purchased land in the vicinity or on the golf course itself.

The additional investment is a few times bigger than the initial investment in the construction of the golf course, but since this investment is directly due to the construction of the golf course, its size must be taken into consideration when determining the total investment.

Even though the final amount of investment depends on the quality of accommodation the investor wishes to achieve, the type and number of buildings that will be built, on the grounds of some past cost estimates and the announced construction of the golf complex Marlera, we can calculate the size of the expected investment in the construction of accommodation facilities alongside the golf course.

The project of the golf resort Marlera⁹ (southern Istria) includes the construction of one golf course with 27 holes, a 5 star hotel, 27 villas and 80 apartments of the total capacity of 800 beds. The whole investment has been estimated to 55.000.000 EUR.

The cost estimate for the construction of the planned golf course near Novigrad included the construction of a 5 star hotel, several apartments and a tennis court and amounted to around 25.000.000 EUR.

From the examples above it is evident that the total investment in the ancillary accommodation facilities is far superior to the expected investment in the construction of the sole golf course. For the needs of this paper we shall be careful in estimating the average expected investment in the accommodation capacities to 20.000.000 EUR although this value is lower than the announced total investment in the third golf resort whose construction has begun in Motovun.

To sum up, we can conclude that the average total expected direct investment in the construction of a single golf resort shall be at least 25.000.000 EUR, despite the fact that there will be golf resorts of different quality with significant differences in the amount of the total investment. Although the choice for the start of the investment is up to the investor and his capabilities and connections needed to secure a satisfying occupancy of the golf complex with the course, and therefore we cannot speak about a short period of creation of an Istrian golf region, it is possible to give an approximate estimate of the total investment in Istrian economy in the coming period.

Considering the Master Plan for the development of Istrian tourism¹⁰, there has to be a clear support to the construction of a larger number of golf courses in Istria, giving strategic importance to the construction of golf courses through the implementation of the appropriate legislature. We could conclude that in 2004, most obstacles to investments in golf have been removed. On the other hand, the candidacy of the Republic of Croatia for the membership in the European Union will enable simpler investments by foreign investors in Istrian tourism and, consequently, in Istrian economy. We can assume that the majority of investments in the construction of golf courses in Istria will be carried out in the period between 2010 and 2018, i.e. in a decade.

At the moment, there are 22 current locations in Istria and a few that are being considered. The total investment depends on the number of courses opened in the coming period, whose number cannot be precisely determined since it is up to the investor.

However, for the needs of this paper we can assume that the Istrian golf region will have 20 golf courses which leads us to the conclusion that the total direct investment in Istrian tourism and economy through investments in the construction of golf courses with the ancillary facilities will be at least 500.000.000 EUR in 10 years, i.e. around 50.000.000 EUR a year.

In order to get a broader view of the importance of such an investment for the economy of the Republic of Croatia in general, we can only say that the year 2003 saw a direct foreign investment of about 1.998.300.000¹¹ USD, i.e. around 1.600.000.000 EUR in Croatian economy. We can conclude from these known parameters that the creation of an

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¹⁰ THR in cooperation with Horwath Consulting, Zagreb, December 2003.
¹¹ Croatian Chamber of Commerce: Croatian economy in the period from 1999 to 2003., Zagreb, 2004
Istrian golf region, with an average yearly investment of 50.000.000 EUR, would increase the total foreign investments in Croatian economy by about 3%.

Of the mentioned 1.600.000.000 EUR of direct foreign investments in the economy of the Republic of Croatia, only 3% was invested in tourism, i.e. around 64.000.000 EUR. It is evident that the expected yearly direct foreign investments in Istrian tourism due to the creation of an Istrian golf region are much bigger (78%) than the total foreign investment in Croatian tourism in 2003. When we take into consideration the total direct investments in tourism (including both domestic and foreign investors) which amounted to 950.000.000 EUR\(^ {12}\) in 2003, the creation of an Istrian golf region would increase that amount by 5.2%.

The total expected direct investment in Istrian tourism was 430 mil kunas in 2004, i.e. 57.000.000EUR, which is almost equal to the expected yearly investment in the Istrian golf region\(^ {13}\). We can conclude that the foreign investments in the construction of the Istrian golf region would almost double the existing amount of total (domestic and foreign) investments in Istrian tourism. The creation of an Istrian golf region will contribute to the improvement of the image of Istrian tourism which will lead to a growth of attractiveness of Istria for further foreign investments. Therefore, we can say that the creation of the Istrian golf region will result in considerable indirect investments in Istrian tourism and economy.

### 3.4. Estimate of the influence of the golf region on employment

The following estimate of the influence of the construction of the Istrian golf region relates to an increase of employment.

Firstly, we have to say that the construction work on the golf course will mainly employ the local labour force and Croatian construction companies, which affects employment, although not permanently. New work places will be opened after construction work is finished.

A golf course with the basic ancillary facilities creates an average of 15 work places. However, on the examples of planned construction of golf complexes, it is evident that the number of new work places will be significantly higher because of the construction of new hotels and other accommodation units.

Since the main feature of the Istrian golf region is the all-year-round openness of golf courses and hotels in their complex, it is clear that the work places will not be only seasonal. The expected high quality of accommodation requires a high level of service throughout the day and therefore presumes a higher number of employees. According to estimates regarding the Istrian area, there should be an average of 50 employees per complex, including the people employed directly on the golf course.

As there are plans for twenty golf courses, we have to calculate around 1.000 new work places as a direct consequence of the creation of the Istrian golf region. This number will indirectly be significantly increased because of non-board consumption, especially in the off season months when around 75% of the total consumption of golf tourists will be realized. Because of a significant increase in the off season consumption, many seasonal work places will become permanent thus contributing to a statistical drop of unemployment in Istria.

In any case, the creation of the mentioned 1.000 new work places will significantly contribute to the decrease of the unemployment rate in Istria. Namely, Istria is not heavily populated (about 206.500 inhabitants) and has a little less than 79.000 fit for work inhabitants. In 2004 there was an average of 6.432 unemployed and the unemployment rate was 8.2%,

\(^{12}\)www.hgk.hr

\(^{13}\) Novi list; U istarski turizam se ulaže 430 milijuna kuna („430 million kunas invested in Istrian tourism”), Rijeka, 31.12.2003.
which is significantly lower than in the rest of Croatia. Nevertheless, the creation of 1,000 new work places would further diminish the current number of unemployed people by 15.5%, which would consequently lower the unemployment rate to about 6.9%.

Croatian tourism directly employs around 40,000 people, of which 12,000 are in Istria. The creation of 1,000 new work places in tourism would raise the total number of employed in tourism by 2.5% on the Croatian level and by 8.3% on the Istrian level. Considering that there are around 317,000 unemployed in Croatia, the creation of the Istrian golf region would diminish the total unemployment by about 0.3%.

4. INFLUENCE ON THE TOURIST POSITION OF THE COUNTRY

4.1. Increase in the number of off-season overnights

Regardless of whether the golfers and their company will be staying in newly built hotels in the golf course resort or in the existing accommodation capacities, the Istrian golf region will in any case bring an increase of the number of registered overnights, before all those in the off-season.

For example, in 2003 Istria realized 16,214,000 overnights. Considering the estimates saying that the golf region will see 400,000 overnights of golf tourists and an additional 400,000 overnights of their families and friends, the expected increase in the total number of overnights due to the creation of the Istrian golf region would be at least 5%.

Judging on the experience of the Algarve golf region, the largest number of arrivals is expected in the off-season. According to graph 1, we can calculate that only 25% of the total rounds were played in the four months of the peak season (June-September) while no less than 75% are played off-season, with March and October as the most active months.

When we distinguish the season and off-season overnights in the total number of registered overnights realized in Istria, we can conclude that Istria realizes 86% of its total overnights in the season (June-September), and only 14% during the remaining 8 off-season months\(^\text{14}\). With a logical assumption of the distribution of overnights of golf tourists and their family or friends, in analogy with the experience of the Algarve golf region, we can estimate that out of a total number of overnights of golf tourists and their company (800,000) no less than 75%, i.e. 600,000 overnights will be realized in the off-season.

\(^{14}\) Data of the Tourist Association of the Istrian Region, www.tziz.hr
Graph 1

Distribution of golf rounds played on courses in Algarve in 2004

Source: Author’s work according to data obtained by the Algarve Golf Association

From the numbers above we can conclude that the Istrian golf region will result in an increase of off-season overnights by at least 26%.

Considering the price differences between the season and the rest of the year, it is not surprising that 90% of the total income is realized during the peak season, while the remaining part is made in the off-season (around 180.000.000 EUR). We can conclude that 75% of the total expected income from golf tourism (72.000.000), i.e. around 54.000.000 EUR will increase the Istrian off-season income by 30%.

4.2. Attracting tourists with better purchase power

On the grounds of the previous parts of the paper we can say that golfers are tourists with an above average purchase power, usually coming from the European middle-class. Their tourist visits are accompanied by an above average consumption so that all tourist countries or destinations try to better their offer in order to attract tourists with as good a purchase power as possible.

On the example of Algarve golf region we have established the average consumption of their golf tourist to be around 250 EUR, but one cannot reach that level of consumption over night so that it is not expected in the Istrian golf region. As we have established so far in this paper, the average consumption of the Istrian golf tourist is around 120 EUR while that of his company is 60 EUR, therefore, we can assume that the average consumption of tourists coming to Istria because of golf will be around 90 EUR.

It is a well known fact that the average consumption of the existing profile of tourists visiting Croatia and Istria is relatively low. According to data from 2003\(^\text{15}\) it barely goes over 30 EUR. Obviously, the average tourist coming to Istria because of golf will be spending twice as much as an average tourist in Istria.

On the other hand, such qualitative substitution of the average tourist with a three times higher consumption generates higher income but it also has some positive ecological consequences. As a matter of fact, the negative impact on the environment, water consumption, waste, etc. will be three times lower if we substitute three existing tourists with one golf tourist, a fact that should not be neglected. There is also a clear positive consequence on the general impact on the environment resulting from the raising of tourist offer quality

\(^{15}\text{Institute for tourism (thomas research).}\)
and the attraction of tourists with better purchase power. Since we have already pointed out that golf tourists would generally be coming in the off-season and the fact that the existing concept of mass seasonal tourism will remain actual for some time, there will not be any decrease in the negative impact on the environment, on the contrary, the impact will be stronger especially in the off-season period.

We also need to mention the increase in the number of holiday days of these tourists. Since the average European golf holiday lasts for 5 days, if we divide 800,000 of golf overnights with the average 5 days of holiday, we arrive at the number of 160,000 new guests, i.e. a final indicator of an increase in the number of arrivals by 6.5 %.

4.3. Improvement of tourist offer and image of Istr ian tourism

In the end we have to mention the hardly measurable but logical consequences of the creation of the Istrian golf region on Istrian tourism, which before all regard the qualitative improvement of the tourist offer and the image of Istrian tourism.

The creation of the Istrian golf region enables Istrian tourism to present itself on the international tourist market in a totally new light. Istrian tourist companies will be able to offer the accommodation of foreign tourists in a tourist region that is now offering much more than just the sea and the sun. It offers golf courses open all year round, golf being part of the offer of all tourist destinations aspiring to a certain image and wanting to attract more tourists with a relatively high purchase power. This would improve the general level of the Istrian tourist offer and such a following of the world tourist trends and a constant investment in the improvement of the tourist offer have become a condition for the survival of regional tourism.

The improvement of the quality of tourist offer due to the creation of the Istrian golf region creates the preconditions for the improvement of the recognizable image of Istria and Istrian tourism, i.e. for the creation of an image connecting Istria to golf. Since the majority of people connect golf to exclusivity and thus to quality, Istria will in that way acquire an image of a quality tourist destination.

A step aside from the Istrian tourist offer and the mentioned new image will give Istria and its tourism a new future where it will not have to fight its competition by lowering the prices because due to a better tourist offer and a new image, it will have enough tourists for whom the quality of tourist offer prevails over price. Such a situation will enable a more profitable business operation of Istrian tourist companies, which will reflect on the overall economic situation in Istria.

The raising of tourist offer quality and the creation of a new image of Istria and Istrian tourism will attract new investments in tourism that are not necessarily connected to golf. Therefore, the positive economic effects of the creation of the Istrian golf region will probably multiply.

5. ESTIMATE OF THE INFLUENCE OF GOLF INVESTMENTS ON ISTRIAN GDP

With the aim of completing the estimate of expected macroeconomic consequences of the creation of the Istrian golf region, this part of the paper will present an estimate of the growth of the Istrian GDP as a consequence of investments in the development of golf as a sport. The following starting point data are important in the mentioned estimate\textsuperscript{16}:

According to the State Bureau of Statistics, the Istrian GDP in 2004 was 13.25 bn kn, i.e. around 2.2 bn USD.

Since the investment in the construction of the Istrian golf region has not yet begun but is only argued in this paper, a dynamic projection has been made in order to give an insight in the potential changes in the level of GDP had the investments in golf begun in 2004 as planned.

Although the nominal Istrian GDP per capita, expressed in USD, grew at a yearly rate of 23.5% from 2002 to 2004, which is explained with the weakening of the USD on the international financial market, for the needs of this paper we will be using the realized BDP growth rate in the same period, expressed in kunas, amounting to a yearly 7.7%.

On the basis of the growth of Istrian GDP by 14.27 bn kunas (around 2.37 bn USD) in 2005, by 15.37 bn kunas (around 2.55 bn USD) in 2006, by 16.55 bn kunas (around 2.75 bn USD) in 2007 and by 17.83 bn kunas (around 2.96 bn USD) in 2008, we arrived to the data necessary for further analysis.

In the same way, for the needs of calculation of macroeconomic effects of the construction of golf courses, we calculate the estimate of the Istrian GDP for the year 2013 to 25.83 bn kn (around 4.29 bn USD), and for the year 2018 in the amount of 37.43 bn kn (around 6.22 bn USD).

In the previous part of the paper we made an estimate of the expected yearly investment in the construction of the Istrian golf region amounting to 50.000.000 EUR a year, i.e. around 62.500.000 USD or 375.000.000 kn.

Since the future investors are facing complex and long preparations before being able to finally build the golf resort (property, location and building permits, etc.) it is necessary to predict a certain period of postponement in the financing process. Considering the above mentioned, for the needs of the paper we will assume that the full investment in the construction of the golf course should have started in 2008 and last until 2018.

In the process of quantification of the influence of the investment in the construction of golf courses on the growth of Istrian GDP, we are going to use the following relation:

\[ \Delta \text{GDP} = M \times \Delta I \]

where:

\[ \Delta \text{GDP} = \text{change of the GDP, i.e. the newly created GDP} \]
\[ \Delta I = \text{change of investment, new investment, in this case, the yearly investment in the construction of golf courses estimated to about 375.000.000 kn.} \]
\[ M = \text{investment multiplier, calculated in the following part of the paper.} \]

In order to be able to calculate it we have to have the coefficient of marginal propensity to consume (MPC) of the population, which is calculated by dividing the available income to the part that is spent and the other which is saved monthly.

Unfortunately, there are no exact measurements of the height of the available income per regions so that the wanted indicator of marginal propensity to consume of the Istrian population has to be directly estimated by using the indicators of the overall Croatian economy by which the ratio between savings (corrected with the exports deficit) and
consumption is 0.22 : 0.78\(^{17}\). In other words, of every new kuna of income, 0.78 kn is spent and 0.22 is saved.

However, since there are no exact indicators of the height of available income in Istria, we can assume that the percentage of available Istrian income that is saved is a bit higher than the mentioned Croatian average, for the following reasons:

- generally speaking, the higher the level of economic development in a region, the higher is the share of savings in the total of available finances.
- Istrian GDP is 35.6% higher than the Croatian average and the average net salary in Istria has in the last years been around 5% higher than is the Croatian average.
- Unregistered tourist income and unregistered income from working abroad considerably increase welfare and available income in Istria.
- Because of a realistically higher GDP, higher net salaries and an above average general development of the Istr ian region, we can conclude that the amount of available income in Istria is higher than the Croatian average.
- We have to point out that the increase of the available income does not result in a linear increase of the parts directed to spending and saving; the income increase results in a larger part being saved and a smaller consumed. Because of such a macroeconomic rule, we need to conclude that the savings share in the available income in Istria is higher and that, for the needs of the paper, it will be estimated at 25% of available income.
- If we accept this conclusion we can say that the relative distribution of Istrian available income is 75% on consumption and 25% on savings.

The estimate saying that out of every kuna of increase on the available income 0.75 will be spent and 0.25 saved, enables us to calculate the indicators:  
- marginal propensity to consume \(\text{MPC} = 0.75\)
- marginal propensity to save \(\text{MPS} = 0.25\)

These indicators serve to determine the wanted investment multiplier (\(M\)):  
\[
\text{Invest. multiplier } M = 1/ (1-\text{MPC}) = 1/ \text{MPS} = 1/ (1-0.75) = 1/0.25 = 4.00
\]

If we multiply the total expected yearly investment in the construction of the Istrian golf region (\(\Delta I\)) by this multiplier (\(M\)), we can calculate the absolute increase of the Istrian GDP (\(\Delta \text{GDP}\)) as a direct consequence of investment:  
\[
375.000.000 \text{ KN } \times 4,00 = 1.500.000.000 \text{ kn.}
\]

As we have already stated that the mentioned effect could have been realized in the period from 2008 to 2010, this increase of the GDP (in an absolute amount) has to be put in relation to the level of GDP for 2008 (17.83 bn kn) and the projections for 2013 (25.83 bn kn) and 2018 (37.43 bn kn).

The calculation mentioned above gives us an estimate saying that the construction of an Istrian golf region, in the way set forth in this paper, would result in an increase of the Istrian GDP by about 8.4% in 2008, by about 5.8% in 2013 and by about 4% in 2018. Such a trend of decrease in GDP growth rate is in keeping with the macroeconomic postulates claiming that the biggest macroeconomic benefit is realized at the beginning of the investment after which it constantly decreases.

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\(^{17}\) www.hgk.hr
Although the mentioned estimate of increase in the Istrian GDP results from what was said in the paper so far, its real value has to be observed through two important facts:

The first is that the real Istrian GDP, according to many analysts, is by far greater than the statistical one, before all because of the way GDP is calculated, because of unregistered tourist turnover and income and because of unregistered work abroad.

The second fact regards the assumption that the total investment will be realized in Istria using services offered by Istrian companies. However, should the planning, construction and other segments of the investment use services by companies registered outside the Istrian region, there will be a drain of finances from the Istrian region and the real investment will result as way smaller because a part of it will be registered in another region.

Therefore, in order for the Istrian region to realize the highest possible macroeconomic benefit from the construction of golf courses, maximum effort has to be put in ensuring that most part of the work is given to Istrian companies and their workers.

CONCLUSIVE REMARKS

Today’s touristic Istria is rich in a variety of tourist facilities and contents, from those in its coastal part to the increasingly demanded in the inland rural regions. Besides the known stationary tourism in numerous hotels, apartment villages, camping sites and private accommodation, Istria is seeing an increase in nautical, congressional, excursion, hunting and fishing tourism, as well as many other kinds of tourism. Therefore, it can be concluded that the tourist preconditions for the creation of an Istrian golf region have been completely satisfied.

The mentioned arguments point to qualitative macroeconomic consequences, however, a quantitative projection has been made for their most important consequences (foreign investments, tourist income and employment).

The projection of the increase of direct foreign investments used the available data on planned and initiated projects for the construction of the golf complexes in Istria. On those grounds we made an estimate of the total expected investment in the construction of one golf complex amounting to 25,000,000 EUR. Because of the expected construction of around twenty golf courses in the contemplated ten years, we have come to the estimate that the total direct investment will be around 500,000,000 EUR in 10 years, i.e. 50 mil EUR a year.

A comparison with the current amount of direct foreign investments in Croatia showed that the creation of the Istrian golf region would increase the total foreign investments in the whole economy of the Republic of Croatia by more than 3%, in other words by more than 78% if we consider the foreign investments directed only to tourism. When we consider the total direct investments in tourism (including domestic and foreign investors), the creation of the Istrian golf region would enable their growth by 5,2%.

A significant improvement is expected in the growth of off-season overnights and therefore also the off-season tourist income. Since it is expected, based on the experience of the Algarve region, that at least 75% of the rounds, and therefore golfer’s overnights, will be realized off-season, this will result in an increase by 26% of the number of off-season overnights and a 30% increase of off-season tourist income.

From the point of view of Istria as a region, when we take into consideration the total (domestic and foreign) investments in tourism, we can conclude that the creation of the Istrian golf region would almost double the existing amount of investments in Istrian tourism. On the other hand, the creation of the Istrian golf region will contribute to the development of the general image of Istrian tourism, which will lead to a growth of attractiveness of Istria for further foreign investments. Therefore, we can claim that the creation of the Istrian golf
region will result in far more conspicuous indirect investments in Istrian tourism and economy.

Taking into account the logical expectation that the investor will only start with the construction of the golf course when he secures a golf tourist market for him, i.e. a sufficient number of rounds played on his course, we have made a projection of the influence of the creation of the Istrian golf region to tourism regarding the increase of the number of overnights, before all off-season, the estimate of the income and the expected changes in the average consumption per tourist.

With the presumption of an average utilization of the golf course on a level of 20,000 rounds a year, the expected daily consumption of the golfers and their friends and family, we made a projection of the expected number of 800,000 additional overnights which is an increase of 5% compared to the past registered number of that additional tourist consumption, i.e. income realized due to the creation of the Istrian golf region on a level of 72,000,000 EUR a year, which would increase the total Istrian income from tourism by 4%. The fact that the total income from tourism is quite measurable as opposed to the real number of overnights compared to the registered ones, explains the difference of a smaller growth rate of total income compared to the growth of overnights. As a matter of fact, the real number of realized overnights is much bigger, so that the growth rate will in reality be lower than the income growth rate, which is logical considering the better purchase power of the golf tourists.

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Osim što otkriva poziciju hrvatskog golfa u svjetskim okvirima, statistika razbija zastarjele predrasude o golfu kao ekskluzivnoj igri bogatijih slojeva društva, jer dokazuje da se radi o masovnoj, opće dostupnoj igri u današnjoj zapadnoj Europi. Hrvatska je očito zaostala u vremenu i prostoru. Činjenica je da je Republika Hrvatska imala opravdanje za desetak ratno-poratnih godina zaostatka, ali nema opravdanje da je jedina država koja nema plana i ne poduzima ništa da se to izmjeni. Pouke koje, u hrvatskoj turističkoj prošlosti, postoje na primjeru tenisa (koji se nekad smatrao hobijem bogatuna) ili nautike (a danas na Jadranu jedre milijuni «običnih ljudi») državi još nisu dovoljne. Golf je danas ono što su nekoć bili nautika ili tenis. Prvi dio rada odnosi se na analiziranje utjecaja golf turizma na produljenje turističke sezone, privlačenje turista boljih platežnih mogućnosti, rast kvalitete turističke ponude, povećanje broja turista, pa sve do zapošljavanja nove radne snage i povećanja stranih investicija. Istra bi od ovog koncepta imala velike koristi koje treba sustavno istražiti, analizirati i sistematizirati da bi se dobila jasna slika opravdanosti stvaranja istarske golf regije. No, nisu dovoljni kvalitativni argumenti pa je potrebno kvantificirati određena predviđanja. Drugi dio rada određuje i makroekonomsku korist poticanja razvoja golfa u Istri. S obzirom da investicija u izgradnju istarske golf regije još uvijek nije započela već se o njoj raspravlja u ovom radu korištena je povijesna znanstvena metoda. Izrađena je dinamička projekcija kojom se daje na uvid pregled mogućih promjena u razini BDP-a da se s investiranjem u golf započelo kako je to bilo i planirano 2004. godine.

JEL: E22, O11, O16

**Ključne riječi:** Golf turizam, turistička ponuda, Istra, investicije, BDP.