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## Innovation for a New Tax Incentive: Patent Box Regime Turkey and the EU Application

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### Abstract

Countries make reductions in direct tax rates to attract foreign investments. In order to avoid this situation leading to an unfair tax competition, instead of decreasing the corporation tax wholly, tax incentives for industrial property rights which contribute innovation are preferred. The dynamism of industrial property rights is higher compared to the other production factors and it is more susceptible to tax incentives. Lately, countries have begun tax incentive applications called either “patent box regime” or “innovation box regime” in order to attract innovative international companies to themselves. For the first time in 1973, “patent box regime” began to be implemented in Ireland and spread rapidly. In this content, this application was entered into force in such countries: France (2000), Hungary (2003), Belgium and the Netherlands (2007), Spain, Luxembourg and China (2008), Malta (2010), Liechtenstein (2011), England (2013), Portugal, Italy and Turkey (2014). Patent box regime is a promoting factor which proposes low taxation for the earnings from directly commercialized patents and from the other industrial property rights. In addition, its structure is result-oriented and incites innovation. In this study, “patent box regime”, a kind of a tax incentive which is provided by the countries in order to enhance their international competitive capacities in the field of innovation, will be examined. In this content, the applications in Turkey and in the European Union will be discussed comparatively and potential difficulties in the application will be mentioned.

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## 1. Introduction

Innovation is defined as an output of a creation process of new and important economic assets that will provide a significant increase in the objective functions, welfare and the earnings of the economical units like individuals, companies, states, global community (Saridoğan, 2010: 118). Novelties which cannot be converted into a significant economic assets are not accepted as innovation (Turanlı and Saridoğan, 2010:14). Today, there is a competitive global environment in which the industrial society transforms into an information society. In this environment, economic units should follow science-technology innovation based political economy strategies in order to protect and improve their competitiveness and be successful (Turanlı and Saridoğan, 2010:333). Countries that save enough resource for R&D, protect their inventions with patent rights as a result of R&D and convert these inventions into advanced technology products productions which will create added value, can reach sustainable economic development and prosperity (Özbek & Atik, 2013: 207). International competition that occurred because of globalization, challenges states to attract foreign investors producing advanced technology to their countries. Countries make reductions in direct tax rates to attract foreign investments to themselves. Because of this fact, OECD and EU criticise countries for causing harmful tax competition. The dynamism of industrial property rights is higher compared to the other production factors and it is more susceptible to tax incentives. Lately, countries have begun tax incentive applications called either “patent box regime” or “innovation box regime” in order to attract innovative international companies to themselves. For the first time in 1973, “patent box regime” began to be implemented in Ireland and spread rapidly. In this content, this application was entered into force in such countries: France (2000), Hungary (2003), Belgium and the Netherlands (2007), Spain, Luxembourg and China (2008), Malta (2010), Liechtenstein (2011), England (2013), Portugal, Italy and Turkey (2014). However, the patent box regimes applied in England and Ireland are criticised by OECD due to the fact that the regimes applied in these countries show contradiction to OECD Base Erosion and Profit Shifting Action Plan. In this study, “patent box regime” , a kind of a tax incentive which is provided by the countries in order to enhance their international competitive capacities in the field of innovation, will be examined. In this content, the applications in Turkey and in the European Union will be discussed comparatively and potential difficulties in the application will be mentioned.

## 2. Concepts

### 2.1. Intellectual Property Rights

Intellectual Property in the economic literature is used to refer intangible assets at the disposal of economic actors. In the legal literature, it refers to intellectual property rights (Odman Boztosun, 2007:3). In the literature, the idea of unity in terms that will be used to represent intellectual products owners’ rights on these products, has not been achieved (Yüce, 2000). Intellectual property rights are also used as an umbrella term to cover the industrial property rights (Arikan, 2007: 152). Intellectual property right is interpreted as a right to obviate the other individuals’ use of the intellectual products apart from their owners (Berzek, 1996:65-69; Yüce, 2001:85). Intellectual labour products are defined by modern legal systems as “intangible goods” that has economic value like physical labour products, may be a subject to legal regulations ve procedures (Yüce, 2001: 85). Industrial property allows the inventions in the industry and agricultures, the innovations, the new designs and the original work to be registered on behalf of their early implementors, and it also allows the indications that will ensure proper identification of the manufacturer or seller of the goods produced and sold in commercial field to be registered on behalf of the owners. In short, “Industrial Property” is an intangible right providing the early implementors to have the right of producing and selling their products for a certain time. (Tayşı, 2012: 8) Protected intellectual products, such as patent, utility model, trade and service lines, industrial design, trade name and bussiness name, geographical indications, topography of semi-conductor products, new plant species and so on, are generally considered within “Industrial Rights” (Yüce, 2001: 87, for detailed information; Güneş, 2009).

### 2.2. Patent Box or Innovation Box

“Patent box regime” also called as “innovation box regime” is a promoting factor which proposes low taxation

for revenue derived from directly commercialized patents and from the other industrial property rights. In addition, its structure is result-oriented and incites innovation. The reason of using the “box” word at the of these regimes is because the patent and the income derived from the other industrial property rights included in the scope will be subject to a lower taxation regime in proclamation and the earners of such income have to mark the box in front of the line in the proclamation (Atkinson and Andes, 2011:1). Patent boxes differ from R&D tax credits. In the years when R&D expenses are incurred, R&D tax credits are provided at the front end of the innovation lifecycle. The benefits are given often in the form of a “superdeduction” against other taxable profits, as a proportion of expenses on qualifying operations. Hence, R&D tax credit are used to encourage certain R&D operations designed to result in innovation. (PricewaterhouseCoopers, 2013: 1)

On the contrary, in the years when income is derived from exploiting IP, tax relief is provided with patent box regimes in the later stages of the innovation lifecycle. Relief can be given in two different forms: either as a reduced tax rate or as a deduction for a portion of the patent box income. By applying these regimes, corporate tax rates can be reduced to a nominal rate of 5 to 15 percent, with effective tax rates typically even lower. Therefore, the commercial activities following development instead of R&D operation itself are the target of patent boxes. . (PricewaterhouseCoopers, 2013: 1) Especially starting 2000s, the main factors having impact on the spread of the patent box regime rapidly are as follows: Fluidity of industrial property rights and high susceptibility to taxation; Increasing significant and capacity of commercialized industrial property rights; The presence of a result-oriented incentive regime; Being a more selective, goal-oriented tax regime with a lower tax loss effect, due to the fact that it provides privileged advantages especially for corporate incomes having high mobile qualifications (Aykın, 2014b: 78-79).

### 3. Turkey and The EU Application

#### 3.1. Turkey Application

Patent and utility model certificate were given to the inventions which are appropriate to establish patent rights and rules, conditions and the principles about the protection of these, were determined with a Decree No.511 about the protection of the Patent Rights published in the Official Gazette dated 27.06.1995 No.22326 . In addition to this regulation, arrangements were made intended for the protection and the incentive of the inventions in Corporation Tax Law No:5520, in Technology Development Zones Law No:4691 and in Value Added Tax Law No:3065. Lastly, with the Law No.6518, for such operations and the earnings gained from these activities, additional exemption provisions were introduced in terms of corporation tax and value added tax.

##### 3.1.1. Corporation Tax and Income Tax Exemption

The article 5/B with the title of “ Exemption in the industrial property rights” was added to Corporation Tax Law with the 82nd article of the Law No.6518 dated 19/2/2014. According to this regulation, starting from the date 1/1/2015 the earnings and the income derived from the inventions by carrying out research, development and innovation operations have tax exemption. This exemption also includes income tax payers. The inventions generated in Turkey as a result of the research, development and innovation operations achieved by the corporation tax payers; the earnings and the income as a result of hiring the inventions ; the earnings as a result of transfer or sale of the inventions; the earnings gained from marketing the inventions by mass-production; If %50 of the portion of the earnings, attributed to the invention with patent or utility model certificate and gained from the sale of the products produced as a result of using them in the production process carried out in Turkey, fulfills the conditions stated in the article, they are free from corporation tax starting from the date 1/1/2015. This exemption also includes insurance or other compensations obtained because of the inventions and the earnings gained as a result of the violation of the rights for the invention.

The conditions for the exemption are: The invention must be amongst the inventions which were protected by being given them patent or utility model certificate within the Decree No.551 dated 24/6/1995 about the Protection of the Patent Rights. The invention must get either patent with substantive examination or utility model certificate

after the research report. One must deserve exemption application and must have patent or utility model certificate or must have a special monopoly-like licence on utility model certificate. Regulating a valuation report The protection time provided for the patent or the utility model certificate must be unexpired. Natural persons or juridical persons who can benefit from exemption application, must have the qualifications stated in the 2nd article of the Decree No.551. These qualifications are: having residence within the territory of Republic of Turkey or having industrial or commercial activity, having the right to apply within the provisions of Paris Treaty. Although it is not in this context, natural persons or juridical persons, from other states that recognise the protection of patent and/or utility model certificate de-facto or legally for the persons from Turkey, have also right to benefit from exemption application within the principle of reciprocity.

According to General Declaration of Corporation Tax No.8, there is no distinction as full or limited taxpayer amongst natural persons or juridical persons having the qualifications for exemption application. If the patent with substantive examination or the utility model certificate with research report is taken on behalf of limited taxpayer corporations, for the income and the earnings gained from the inventions which emerged as a result of research, development, innovation and software operations carried out in Turkey by these corporations, it is possible for them to benefit from exemption provisions. According to the Decree No.551, the protection time for the patent with substantive examination is at most 20 years starting from the date of application to Turkish Patent Institute, the protection time for the utility model certificate with research report is at most 10 years starting from the date of application to TPI.

Exemption amount that each taxpayer can benefit from cannot exceed %50 of the price stated in valuation report, total exemption amount that taxpayers can benefit from cannot exceed the %100 of the price stated in valuation report. Accordingly, exemption amount that a taxpayer can benefit from within the regulation mentioned above, cannot exceed %50 of the price stated in the report regulated by the Ministry of Finance. For some reason if more than one taxpayer benefits from exemption because of the industrial property right, the exemption amount they can benefit from cannot exceed %100 of the determined price. (YMMMO, 2014).

Even though the earnings are within exemption, these earnings can be taxed via withholding. However the income from the earnings subjected to exemption or the rate of withholdings which will be implemented in accordance with corporation tax law, will be applied with a %50 discount. For example, even if when a natural person rents a patent of his own, the income tax withholding in the rate of %20 is required to be taken out of the rental charge in accordance with the article 94/5a of ITL, if the conditions above exist, the rate of the income tax withholding will be %10. On the other hand, if the person who derives revenue within this context isn't required to file a return because of the fact that his revenue is taxed via withholding in accordance with the 86th article of ITL, reduced withholding tax will be implemented for 5 years and after 5 years, the rate of this reduction will be normal again. If more than one person in different times is within the context mentioned above in terms of the invention in the question, according to us this 5 year period should be implemented separately for each tax payer. (YMMMO, 2014).

According to General Declaration of Corporation Tax No.8, starting from the date 1/1/2015 one can benefit from exemption for the earnings and the income derived from the patented or utility model certificated inventions whose protection time hasn't expired and which were taken before the date 1/1/2015. However, one cannot benefit from the exemption for the earnings and the income gained from the patented or utility model certificated inventions whose protection time has expired. According to the General Declaration of Corporation Tax No.8, even if taxpayers comply with the conditions both in the 2nd provisional article of Technology Development Zones Law No.4691 and in this article, only one of these exemptions will be implemented to the earnings derived from the invention in the question. Thus, taxpayers who benefit from the exemption stated in the article for their earnings derived from their inventions will not be able to also benefit from the exemption for these earnings within the meaning of the Law No.4691. According to the General Declaration of Corporation Tax Law No.8, the expenses of taxpayers relating to research, development and innovation activities have been a subject matter to R&D reductions within the subparagraph (a) of the 1st paragraph of the 10th article of this Law or within the 3rd article of the Law No.5746. However, this is not an obstacle for taxpayers to benefit from the exemption application regulated in the article 5/B of the Law because of their revenue derived from the inventions as a result of their activities.

### 3.1.2. Value-Added Tax Exemption

Renting, transferring and selling proceedings of incorporeal rights, related to the invention which is subject to the earning and the income to be exempt from income and corporation tax, will be exempt from VAT and reduction will be possible in the taxes which will be implemented to delivery and service starting from the date of 01.01.2015 for the proceedings within the context of exemption. Of the aforementioned proceedings being exempt from corporation tax does not require an automatic VAT application to these proceedings. VAT exemption will be implemented for renting, transferring and selling incorporeal rights related to the invention, but there will be no exemption application for selling the goods produced as a result of this invention. The exemption in the article 17/4-z of VATL, is not directly related to the exemption application in technology zones in the 20th provisional article of the same Law and it shows difference in exemption application. It will not be very wrong to say that both of the exemptions complement each other which means that one involves the subjects that the other one does not involve (YMMO,2014).

### 3.2. The EU Application

The new patent box regime model has been introduced in many EU member countries to be able to compete with similar precautions. The revenue derived from the intellectual property rights like patents, complementary protection certificates and royalties on patents will be taxed separately with a lower rate of tax than the other income of the country (Widmer and Scherrer, 2014:1). Countries prefer to apply patent box rates according to any of these three mechanisms: a reduction for a portion of the earnings, a reduced rate for IP income or an exemption of a portion of such income (Graetz, 2013: 363).

#### 3.2.1. Ireland

The patent box regime was first applied in Ireland in 1973. Patent Boxes show difference from tax credits. Because the main focus of the incentive is on the commercialization of innovation, not just on the conduct of the research. Acquired IP was included in the patent box firstly in Ireland and it set the stage to get the intangibles from US and other countries.

Preferential regimes, providing effective tax rates for intellectual property income that is below the standard rate of corporation tax have been introduced by certain countries. These are known as Patent Box regimes. Income-based IP regimes has been brought into focus by The OECD's Base Erosion and Profit Shifting ('BEPS') project and harmful tax practices are addressed under Action 5 of the project. The aim of this work is to be sure that these preferential regimes fulfil the *substantial activity* requirement. In this way, they will be no longer deemed harmful. In order to come to an agreement on a common approach for assessing IP regimes by reference to economic substance, lots of discussions have been made within the OECD BEPS project and the EU Council Code of Conduct on Business Taxation. To apply the substantial activity requirement, the discussions are starting to reach consensus on a "modified nexus approach". Modified nexus approach connects the tax benefits arising under IP regimes to the amount of R&D expenses. These expenses are what the companies have to incur while they develop IP from which they benefit tax advantages. With this approach, as long as there is a direct proportionate nexus between the IP income and the R&D expenses that generated that income, countries are allowed to provide a preferential rate of corporate tax for IP income. As this proposal is still being discussed, it's most probably that the OECD and EU will adopt the modified nexus approach, in addition, the design of the Knowledge Development Box will need to be in line with this approach. (Department of Finance, 2015: 5) The *Road Map For Ireland's Tax Competitiveness* was published as a part of Budget 2015. It was announced by the Minister of Finance that Ireland intended to introduce a competitive income-based tax regime or intellectual property. This will be known as the 'Knowledge Development Box' or KDB (Department of Finance, 2015: 1). The budget 2015 was presented by Minister of Finance on October 14, 2014. It was reduplicated by the Minister that the commitment of the government to corporate tax rate of %12.5 would be a settled tax policy. The Minister also outlined measures for providing a competitive tax environment for multinationals to operate in the country.

The key measures announced as part of budget 2015 include (Deloitte, 2014 b:1) : The double Irish structure will no longer be available to multinationals establishing such structures as from 1 January 2015. A grandfathering

period of six years (up to 31 December 2020) will be available for multinationals that have a double Irish structure in place on or before 31 December 2014. A “knowledge development box,” similar to IP and patent box regimes across the EU will be introduced in Finance Act 2016, or earlier if the outcome of EU/OECD review is known. Significant enhancements will be made to the onshore IP regime.

*Knowledge Development Box* was announced in the Budget 2015 of the Irish Government. It is similar to the UK Patent Box and it will give favourable tax relief to the revenue derived from the patents. The main goal here is to encourage Irish companies to develop and sell the products with patents, so that they can attract foreign companies’ research and development units to Ireland. The Department of Finance launched a public consultation process on the introduction of the Knowledge Development Box in January 2015. With this process the views on operating the Knowledge Development Box will be discussed. The process ends on 8 April 2015. Even though the exact conditions for qualifying for the Knowledge Development Box haven’t been decided yet, it’s thought that the Knowledge Development Box will include a tax rate of %6.25 or maybe lower. A 6.25% tax rate is half the standard Irish corporate tax rate of 12.5 (Carr, 2015).

### 3.2.2. United Kingdom

Since innovation box became widespread, the UK Government also aimed to encourage innovation and improve competitiveness of the tax system in the UK. Thanks to this ambition, the patent box regime has been also introduced in the UK. The proposal of this regime was first made in 2009 and finally in 2012 the legislation became final and enacted (PricewaterhouseCoopers, 2013: 2). With this patent box regime, companies are now allowed to elect to apply a %10 rate of corporation tax from 1 April 2013 to all profits which can be attributed to qualifying patents and certain other intellectual property rights. The full benefit of the regime will be phased in over the first four fiscal years with the full deducted rate applying starting from the date of 1 April 2017 (<http://www.hmrc.gov.uk/manuals/cirdmanual/CIRD201010.htm>).

In order to benefit from this regime the IP does not have to be owned by a UK company. The regime covers the rights over IP which were developed elsewhere in the corporate group and exclusively licensed to the UK Company (PricewaterhouseCoopers, 2013: 2). The inventions, which are protected by the patents acquired by the UK Intellectual Property Office or European Patent Office, are included in the UK patent box regime. Additionally we see that the regime also includes supplementary protection certificates, regulatory data protection for pharmaceutical, veterinary and plant protection products, and plant variety rights within (357BB(1) of Corporate Tax Act 2010 (CTA10) (PricewaterhouseCoopers, 2013: 2). When the elections are made by a company under CTA10/S357A, the reduced rate tax is applied via an additional reduction in the corporation tax calculation. *Relevant IP income* is the profit from activity associated with *qualifying IP rights*. Only profits arising from *relevant IP income* can be included in the Patent Box calculation to reduce the Corporation Tax payable. Broadly, there are three stages to calculate the relevant IP profits: (<http://www.hmrc.gov.uk/manuals/cirdmanual/CIRD201010.htm>)

- Identify the profits attributable to income arising from exploiting patented inventions - known as ‘relevant IP income.
- Remove a routine return - this reflects the fact that a business would be expected to earn a profit even if it had no access to patented technology or intellectual property.
- Remove the profit associated with intangible assets, such as brand or other marketing assets - the Patent Box is not designed to reward other forms of IP. In many cases this figure is nil and in others a simplified small claims treatment can be applied.
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Starting from the date of April 1, 2013 the Patent Box regime may be elected by the companies.

Qualifying companies are now allowed to benefit from a reduced rate taxation for their earnings gained from patents and other specified intellectual property. The Patent Box reduces the rate of tax by allowing an additional reduction (‘the Patent Box reduction’) from the earnings of the trade for corporation tax purposes. The Patent Box

reduction means a proportion of the relevant income from patents and intellectual property (<http://www.hmrc.gov.uk/manuals/cirdmanual/CIRD201020.htm>).

With CTA10/S357A(3), the calculation for the *Patent Box reduction* is provided as -

$$\frac{RPx (MR- IPR)}{MR}$$

RP: Relevant Intellectual Property Profits; MR: Main Rate of Corporation Tax

IPR: Intellectual Property Rate of Corporation Tax 10%

Relevant IP income is the revenue derived from the exploitation of qualifying IP rights. The legislation splits the exploitation of IP rights into five different heads: sales income, licence fees, proceeds of sale, damages for infringement, other compensation (<http://www.hmrc.gov.uk/manuals/cirdmanual/CIRD220160.htm>).

### 3.2.3. Netherlands

The Netherlands was the first Benelux country that introduced a patent box tax regime. Firstly in 2007 Netherlands introduced “the patent box”, but later gave a new name which is “innovation box” effective on January 1, 2010. Under the name “patent box” the taxation of the income from qualifying IP was at Effective Tax Rate of %10 with certain limitations. However starting from the date January 1, 2010 the patent box regime became widespread and after that, it was called “innovation box” (Shanahan, 2011: 6). This new regime gives a %5 tax rate for the income gained from any IP as a result of technological R&D operations. It can implement not only to Dutch resident companies but also to foreign companies having permanent Dutch establishments as long as they are paying their taxes in Netherlands (PricewaterhouseCoopers, 2013: 11). “The innovation box applies to patented and non-patented innovations alike, provided that the R&D efforts qualify for the Wage Tax Benefits For Innovation (WBSO) – described above. Development costs and losses on the exploitation of IP that are allocated to the “innovation box” can be deducted against qualifying income” (Deloitte, 2014a:32). The companies that do not have patents for their products or that have non-patentable products under EU Law can also benefit from the innovation box. The regime does not involve trademarks, non-technical design rights and literary copyrights (PricewaterhouseCoopers, 2013: 11). To qualify for the innovation box, IP must meet the following conditions (Shanahan, 2011: 6):

- The IP must be self-developed for the risk and account of the Dutch taxpayer and must have become a business asset after December 31, 2006;
- A patent or an R&D declaration needs to be obtained for the IP (“R&D IP”);
- In the case of a patent right, more than 30 percent of the derived income should be attributable to the patent right.

The corporate tax which is available under the innovation box implements to the net income earned from the qualified IP with a %5 discount. This amount is calculated by subtracting all related expenses and depreciation from the gross income. The allocation of profits to the patents or R&D IP is resolved via transfer pricing methods. Taxpayers have a chance to choose separately to apply the innovation box for each qualifying IP right (PricewaterhouseCoopers, 2013: 11). The losses due to qualifying IP can be reduced at the standard corporate tax rate. Before the lower effective tax rate applies, however, companies should relieve losses which were incurred from qualifying IP and reduced from taxable profit in previous years. This rule is also applicable for R&D costs reduced before electing an innovation box for qualifying IP (PricewaterhouseCoopers, 2013: 11).

### 3.2.4. Belgium

The Belgium patent box regime was introduced on 1 January 2007, in the form of a patent income deduction (PID). This PID allows a Belgium company, or a Belgian permanent establishment (PE) of a foreign company, to deduct Belgium introduced the patent box regime on January 1 in 2007. It was formed of a patent income deduction (PID). With this PID, a Belgium company or a foreign company’s Belgian permanent establishment (PE) is allowed to deduct from its taxable income an amount equal to 80% of qualifying gross patent income (PricewaterhouseCoopers, 2013: 6). Hence, the normal corporate tax rate of the gross patent income is only %20, which results in a maximum effective tax rate of %6.8. Additionally most of the expenses continue to be deductible at %34 rate. However this deduction in the rate of %34 does not cover license fees related to an acquired patent and the amortization of it. Consequently, the deduction of these and other available tax deductions may lower the effective tax rate to zero (Shanahan, 2011:5). The patent box regime in Belgium can be applied only to qualifying

patents and supplementary protection certificates. Belgian law explicitly excludes from the patent box other intellectual property rights, such as trademarks, designs, models, secret recipes or processes are visibly excluded in the Belgian law. On the other hand it is possible for closely associated with patents or supplementary protection certificates to qualify for the PID. This possibility has been indicated by the Belgian tax administration. The patents acquired before 1 January 2007 do not qualify, so patents must be acquired or used commercially after or on that date. (PricewaterhouseCoopers, 2013: 6). Qualifying the R&D center as a “line of business” or “branch activity” is a must, in order to benefit from the PID, meaning that there should be a division of an entity, which is capable of operating autonomously. If the Belgian company or PE is tend to perform and supervise R&D operations, they need to have relevant substance. However, they may apply for using subcontractors while developing the patents or extended patent certificates. It is specifically provided in the PID law that the location of the R&D center can be outside Belgium in one condition; the center must belong to a Belgian legal entity. If there is a Belgian company or PE provides services on behalf of another company, it cannot apply for PID, since it is not the owner or the licensee of resulting patents (Shanahan, 2011:5). The Belgian patent box regime includes royalties and licence fees received by the Belgian company or PE from licensing out its patents. The amount of royalties which can be included is limited to the amount that is classified as taxable income in Belgium. Where the royalty or licence fee received is from a connected party the royalty that can be included is also limited to the amount that would have been agreed between unrelated parties. Where patents are used by the Belgian company or PE itself in the manufacture of patented products, the PID is 80% of the hypothetical licence fee that the Belgian company would have received had it licensed the patents to an unrelated party. This is known as embedded royalties (PricewaterhouseCoopers, 2013: 6).

### 3.2.5. Luxembourg

The patent box regime in Luxembourg was formed with the combination of the features of the Belgium and Dutch systems. It was introduced into law in December 2007 (Shanahan, 2011:7). Taxpayers can benefit from the Luxembourg regime for their net income gained from qualifying IP developed after the date 31 December 2007. They get an exemption in the rate of %80 with an effective tax rate of %5.76 from their net income gained from qualifying IP (PricewaterhouseCoopers, 2013: 9). "Amortization, R&D expenses, interest charges, and other related expenses must be deducted against the gross qualified IP income. The 80-percent exemption also covers capital gains realized on the sale of qualifying IP. The regime also provides for a full net wealth tax exemption of the IP (Merrill, et al, 2012:1668)."Qualifying IP rights include patents, trademarks, design, domain names, models, and software copyrights. Copyrights, formulas, and client lists are not candidates for the beneficial treatment. Additionally, In order to be a candidate for the IP rights, they should not have earnings from a directly associated company, such as %10 direct parent, subsidiary, or sister (Shanahan, 2011: 7). If taxpayers use their self-developed patents internally, they can benefit from national deduction in the rate of for their income that amounts to %80 if it's been licensed to use the patent to a third party (Merrill, et al, 2012:1668).

### 3.2.6. France

In France firstly in 2000 the French patent box regime was introduced and then it was regulated two times in 2005 and 2010. Current regime offers a reduction in the rate of %15 of corporate tax for the earnings derived from qualifying IP, compared with the standart rate of %33.33 (PricewaterhouseCoopers, 2013: 8)."Qualified IP includes patents, patentable inventions, and improvements made to them; industrial manufacturing processes that are the continuation of patents or patentable inventions (but not improvements); and certificates relating to vegetal inventions. Qualified IP rights must also qualify as assets. If IP rights are acquired (that is, do not result from R&D activities performed by the company), they must be held for at least two years to qualify for the patent box regime (Merrill, et al, 2012:1667) ". Starting from the date of 1 January 2013, a new tax incentive named “Innovation Tax Credit was applied by France for downstream activities. These can be exemplified as expenses for new prototypes. Only the companies which have less than 250 employees and sales less than €50M can benefit from this incentive. The rate of the tax credit is %20 and the limitation for the qualifying expenses’ amount is €400K (Deloitte, 2014 a:15)." If the technology is owned by a French company, the gains on licensing technology will be taxed with a %15 reduction, but the earnings gained from the sale of the technology and sale of patent or patentable for at least to

years are excluded from %15 reduced rate. Furthermore, the royalty fee can be reduced in the rate of %33.33 for the French licensee (Deloitte, 2014 a:15) . Qualified income includes (Merrill, et al, 2012:1667-1668): "net royalty payments received under license and sublicense agreements (either exclusive or nonexclusive, covering a portion or all of the qualified IP rights), corresponding to the difference between the gross amount of royalties received and the related costs incurred (by the owner) to manage the qualified IP rights licensed; and net capital gain reported by the seller in case of transfer (via sale, contribution in kind, transfer of business, etc.) of qualified IP, corresponding to the difference between the transfer price and expenses incurred by the transferor for the purpose of the transfer "

#### 4. Conclusion

Even if Turkey is not in a good position at the ranking of world innovation index, it's recently showed an effort in the field with its R&D incentives and its incentive regulations for industrial property rights. According to the results of the measurements of innovation and knowledge economy performance carried out by European Union (EU), INSEAD, The Economist Intelligence Unit and World Bank, Turkey performs relatively well in the criteria such as the incentives given to R&D and innovation, the presence of required institutions within the international innovation system and scientific publications. In spite of this, Turkey needs to improve its competent human resources, general education system and intellectual property rights in order to generate innovation. (Karaata, 2012:14). The incentives are not key factors on their own. When they are used in the right place, time and condition, they can become effective. The most important indicator of this is that countries, such as Sweden, Finland, Germany and Denmark which do not have special incentive mechanism for R&D activities, are the most advanced ones in the EU in terms of both intensity of R&D activities and their special sector in R&D activities. The main reason behind their success on this field is presented as their well-educated labour force and strong R&D structure. (Çelebi and Kahrıman, 2011:61).

The increase in the numbers of the countries applying patent box regime in recent years shows that competition has occurred in the field and countries follow each other. This situation indicates a possibility of a harmful competition in terms of patent box regimes and countries may be in the point of harmful competition by racing to bottom. Because, such situation was occurred in 1980s in the rates of general corporate tax. This harmful competition may increase the downward impact on countries' tax incomes as a result of patent box application. (Aykın, 2014a: 85). Countries such as England and Ireland applying the patent box regime was required to make regulations within the scope of Modified Nexus approach, since it contradicts to the Base Erosion and Profit Shifting Action Plan of OECD. It is possible that Turkey will be criticised because of the same reasons. (Taşdöken, 2014:64) We see that the scope of industrial property rights are quite extensive in the EU countries and it covers many industrial property rights that include innovativeness. However in Turkey we see that the industrial property rights included in the scope are limited with the inventions that are protected by giving utility model certificate based on the substantive patent and research report. Therefore, it is not possible to say that the exemption regulation compared to the other countries making similar regulations, has a sufficient competitive attitude. (Aykın, 2014b). While in Turkey, the method of setting an upper limit for the earnings that can benefit from patent box regime is preferred, in other countries, except Hungary, there is no limit on the amount of earnings. (Aykın, 2014a: 82).

Countries need to design their patent box regimes well that they present in order to raise their level of welfare, maintain their economical development and improve their competitiveness. Providing tax incentives only is not enough to attract foreign investor producing knowledge and advanced technology to the country. Along with the tax incentives, Turkey needs to create qualified human resources and make legal regulations that will provide investors to make investments, and protection of their intellectual property rights. Otherwise, these regimes will lead countries to tax losses.

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