Key Corporate Tax Haven Indicators

Haven Indicator 7:

Patent Boxes

What is measured?

This indicator measures whether a jurisdiction offers preferential tax treatment for income related to intellectual property rights (e.g. patent boxes) and whether the Organisation for Economic Co-operation and Development (OECD) nexus approach constraints (as explained below) are applicable to the patent box. The term "patent box" is increasingly being used more widely than only for patent incentives alone to reflect a range of preferential tax treatments for intellectual property.[1] To explain the logic of this indicator, we hereafter define all tax regimes affecting the corporate income tax treatment for intellectual property related income as "patent box regimes".

A haven score of zero for this indicator is provided only if the jurisdiction has not introduced a patent box regime, either with or without the constraints determined by the OECD nexus approach. A haven score of 100 is given if the jurisdiction offers a patent box regime without OECD nexus constraints or if the patent box regime is not applicable for the jurisdiction given that it imposes no corporate income tax or a zero statutory tax rate. The haven score is reduced by 10 if the patent box regime offered by the jurisdiction is in line with the OECD nexus approach.

A preferential tax treatment for intellectual property rights usually takes the form of either special cost-based tax incentives or profit-based tax incentives (e.g. lower tax rates). The first step in our analysis was therefore to identify whether either the income or the expenses (or both) qualify for a patent box regime. For this indicator, we considered that a jurisdiction adopts a patent box regime only whenever the regime is characterised as a profit-based one. If the jurisdiction has more than one regime, we assessed it according to the weakest link principle. Once a patent box regime was identified in the jurisdiction, we checked whether that regime was available with or without the OECD nexus constraints.

The scoring matrix is shown in Table 7.1, with full details of the assessment logic presented in Table 7.3 below.

Table 7.1. Scoring Matrix Haven Indicator 7

Regulation	Haven Score [100 = maximum risk; 0 = minimum risk]
Patent box regime is available without OECD nexus constraints The jurisdiction offers a patent box regime without the OECD nexus approach. **Or** The patent box regime is not applicable for the jurisdiction given it imposes no corporate income tax or a zero statutory corporate tax rate.	100
Patent box regime is available with OECD nexus constraints The jurisdiction offers a patent box regime which is in line with the OECD nexus approach.	90
Patent box regime is not available There is no evidence that the jurisdiction offers a patent box regime.	0

The final Action 5 report of the OECD Action Plan on Base Erosion and Profit Shifting (BEPS), which focuses on tackling harmful tax practices[2] (hereinafter, "Action 5 report"), adopts the nexus approach as a way to identify whether a preferential tax regime is harmful. The first OECD report on Action 5 examined situations in which a preferential patent box regime is considered harmful. For example, an indication of a potentially harmful patent box regime is when the patent box regime is the primary motivation for the location of an activity. Action 5 report includes two parts, the first aims at identifying whether features of patent box regimes are harmful and the second aims at ensuring transparency through the compulsory exchange of related tax rulings. The Action 5 report is one of the four minimum BEPS standards, which all members of the Inclusive Framework on BEPS have committed to implement.

The nexus approach, as developed by the OECD and presented in 2014 in a preliminary Action 5 report,[3] was one among others that were suggested for requiring substantial activity for any preferential tax regime, such as patent boxes. The nexus approach requires a link between the income benefiting from the intellectual property and the underlying research and development activities that generate the intellectual property.[4] The approach allows taxpayers to benefit from an intellectual property regime only if they can link the income that stems from the intellectual property to the expenditures (such as research and development) it incurred (either by the taxpayer itself or by outsourcing it to a third party, i.e., qualified research and development activities).[5] Under research and development credits and similar "front-end" tax regimes, the expenditures are directly used to calculate the tax benefits. However, the nexus approach extends the principle of front-end tax regimes also to back-end tax regimes that apply to the income earned after the exploitation of the intellectual property. In other words, the expenditures act as a proxy for substantial activities. That is, the proportion of expenditures directly related to development activities acts as a proxy for how much substantial activity the taxpayer undertook.[6]

The other two main suggested approaches for requiring substantial activity were value creation and transfer pricing. Value creation means that tax benefits apply only if specific criteria for development activities taking place in the jurisdiction are met. Transfer pricing requires the assessment of functions, assets and risks.[7] Out of the several suggested approaches, a modified nexus approach was later endorsed by all OECD and G20 countries. The modified nexus approach includes the following main changes to the original nexus approach: 1) Up to 30% uplift of qualifying expenditures can be considered in determining the nexus ratio in limited circumstances. This means that if a company has, for example, an expenditure cost of US$1m, it can set US$1.3m against tax; b) 30 June 2016 was the last date to introduce new entrants to patent box regimes that were not consistent with the nexus approach; and c) 30 June 2021 was the last date for their elimination as well as some opportunities for "grandfathering" of existing provisions.[8] For this indicator, in cases where a jurisdiction introduced grandfathering rules that enable companies which entered the regime earlier to continue benefitting from the old patent box regime (without nexus constraints) until 30 June 2021, we conclude that as of May 2019, the preferential regime is still available and relevant for the purposes of this indicator. We will, however, consider the changes for the next publication of the Corporate Tax Haven Index.

The data for this indicator has been collected primarily through the International Bureau of Fiscal Documentation (IBFD) database (country analyses and country surveys)[9] as well as from the OECD's latest peer reviews[10] of preferential regimes. In some instances, we have also consulted additional websites and reports of the Big Four accountancy firms and local tax authorities.

All underlying data can be accessed freely in the CTHI database.[11] To see the sources we are using for particular jurisdictions please consult the assessment logic in Table 7.3 and search for the corresponding info ID (ID 515) in the database report of the respective jurisdiction.

Why is this important?

A patent box regime provides tax privileges for highly profitable businesses and enables cross-border profit shifting into these tax regimes, undermining the tax bases of jurisdictions elsewhere.[12] Promises to spur innovation, tax revenues and growth through the introduction of patent boxes have failed to materialise in empirical data. In contrast, available evidence suggests that patent box regimes are effective only for raising multinationals' share prices. For example, research conducted by the Congressional Research Service in the USA and published in May 2017 concluded the following:

> There is no evidence that a patent box necessarily increases tax revenues in the host country; rather, countries that adopt a patent box may find that the added revenue from new patenting activity is eclipsed by the loss of revenue from the reduced tax rates for patent income. As more countries adopt a patent box, the risk grows of an inter-government tax competition triggering a race to the bottom of the ladder of effective tax rates on patent income. Patent boxes have had little impact on innovative activity in host countries in the absence of a local development requirement.[13]

Similarly, recent empirical research, published by the Max Planck Institute for Innovation and Competition, analysed the effects of the introduction of patent box regimes in 13 European countries between 2000 and 2014. According to the research, given that a patent box regime subsidises output rather than input, it benefits mainly companies that have already had success with their invention. And while it may encourage other companies to undertake such inventions, this can be done in a better and more efficient way.[14]

Another report, published in 2015 by the European Commission, concluded that patent boxes are not the most effective way to stimulate innovation and research and development.[15] In fact, it appears that jurisdictions without such patent box regimes have been more successful in attracting and fostering innovative businesses.[16] However, although the efficiency of patent box regimes in fostering research and the associated jobs has never been proven, jurisdictions continue to provide companies with huge tax incentives by introducing these regimes.

Furthermore, in cases where patent box regimes are adopted in addition to generous tax breaks for research that are already available through deductions of actual expenditures, such regimes may cause more damage than benefit to the host country.[17] For example, in 2015, the Dutch government found that its innovation box resulted in a tax loss of €361m to the Netherlands in 2010. In 2012, this sum was almost double, increasing to €743m.[18] Finally, a report published by the Centre for European Economic Research in 2013 claims that:

> In the larger of the countries, that have significant innovation bases, it is more likely that IP [intellectual property] boxes will lead to significant revenue losses. Empirical evidence that simulates the Benelux and UK IP

Boxes finds that the increase in IP income locating in the countries is insufficient to outweigh the lower tax rate.[19]

Importantly, patent box regimes confirm the futile notion of competition on tax, locking in a race to the bottom.[20] As a result, while patent boxes in theory could increase tax revenues, positive effects of an individual country's policy are likely to be eroded by the response of other governments, which respond by introducing even more aggressive and corrosive tax policies.[21] For many years, patent boxes have been used by multinational corporations to avoid taxation by shifting profits out of the countries where they do business and into a foreign country with a patent box regime, where the profits are taxed at very low levels or not at all. Researchers indicate that such profit shifting leads to misattribution of economic activities, resulting in productivity slowdown.[22] It also enables multinational companies to monopolise the market while companies that lack the scale of the multinational corporations will be disadvantaged simply because they do not have the resources available to establish global structures which can allow them to avoid tax.[23]

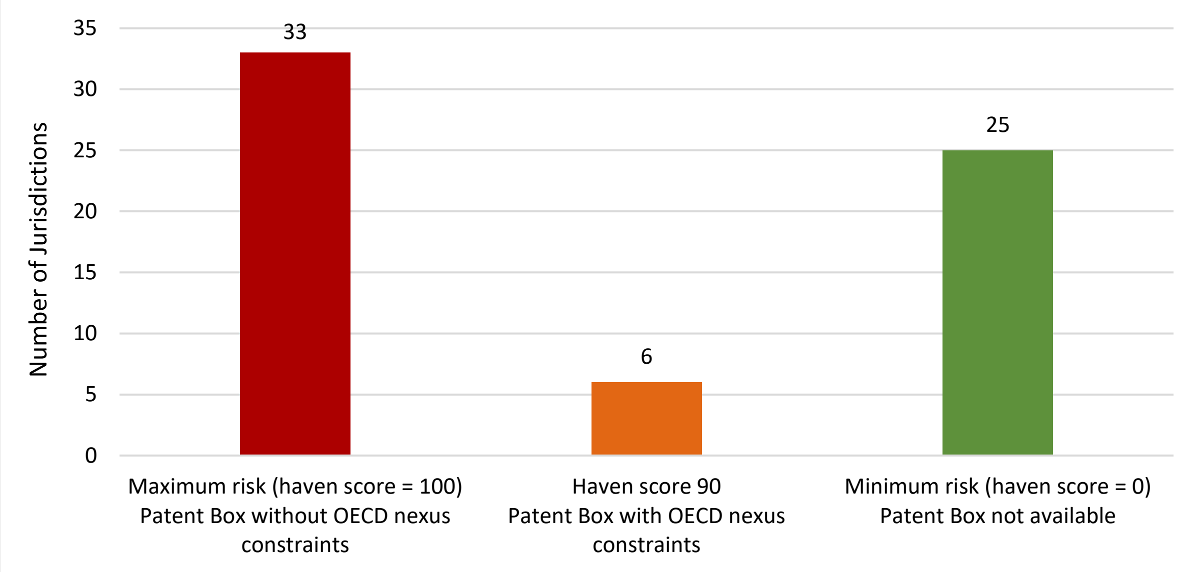
For all of the above reasons, patent box regimes are particularly damaging to developing countries. These countries may be used simply as manufacturing platforms, while their tax base may be drained by profit shifting, which in practice is legitimised by the patent box regime. Patent box regimes, therefore, cannot be justified as a viable fiscal incentive and should be eliminated.

While the OECD nexus approach is a step in the right direction, the constraints set out by the approach are not sufficient to prevent the abuse of patent boxes as tactics in profit shifting and base eroding tax wars. This is because profits from the use of patents are going to be taxed at a lower rate, and the size and amount of qualifying profits may be unlimited.[24] Implementing and enforcing the nexus requirements are obstacles which are near impossible to overcome in order to prevent the abuse of patent boxes for inward profit shifting. Not only does the patent box jurisdiction have little incentive to reduce the attributable profits to the patent box, the criterion for demonstrating "substantial economic activities" as a condition for profit attribution is both complex and burdensome to apply for both companies and tax authorities, and relatively easy to meet.

Governments will need to make sure that national rules comply with the agreed standard and that tax authorities are able to trace which of the expenditures is considered as "qualifying expenditure".[25] This may be a recipe for sweetheart deals[26] as we have already seen with the LuxLeaks revelations[27] and the European Commission's decisions on illegal state aid from countries including Ireland, Luxemburg and the Netherlands.[28] Furthermore, as long as the thresholds required by any nexus rules have been taken, the amounts of profit to be attributed to the patents can be easily manipulated under the existing indeterminacy of transfer pricing rules. Therefore, the abuse of patent boxes with a nexus constraint can hardly be prevented. Nonetheless, we acknowledge that the nexus approach has so far only been implemented for a short period and there is not enough robust evidence and studies to confirm our arguments for its insufficiency. In acknowledging this lacking empirical validation of the nexus' rules inefficacy, we reduce the haven score by 10 for jurisdictions that offer patent box regimes in line with the OECD nexus approach.

Results Overview

Graph 7.1. Patent Boxes Overview



Results Detail

Table 7.2. Patent Boxes – Haven Indicator Scores

Country Name	Score	ISO	Country Name	Score	ISO
Andorra	100	AD	Kenya	0	KE
Anguilla	100	AI	Latvia	0	LV
Aruba	100	AW	Lebanon	100	LB
Austria	0	AT	Liberia	0	LR
Bahamas	100	BS	Liechtenstein	100	LI
Belgium	100	BE	Lithuania	100	LT
Bermuda	100	BM	Luxembourg	100	LU
Botswana	100	BW	Macao	0	MO
British Virgin Islands	100	VG	Malta	100	MT
Bulgaria	0	BG	Mauritius	100	MU
Cayman Islands	100	KY	Monaco	0	MC
China	90	CN	Montserrat	0	MS
Croatia	0	HR	Netherlands	100	NL
Curacao	90	CW	Panama	90	PA
Cyprus	100	CY	Poland	0	PL
Czech Republic	0	CZ	Portugal (Madeira)	100	PT
Denmark	0	DK	Romania	0	RO
Estonia	0	EE	San Marino	90	SM
Finland	0	FI	Seychelles	100	SC
France	90	FR	Singapore	100	SG
Gambia	0	GM	Slovakia	90	SK
Germany	0	DE	Slovenia	0	SI
Ghana	0	GH	South Africa	0	ZA

Country Name	Score	ISO		Country Name	Score	ISO
Gibraltar	0	GI		Spain	100	ES
Greece	100	GR		Sweden	0	SE
Guernsey	100	GG		Switzerland	100	CH
Hong Kong	0	HK		Taiwan	0	TW
Hungary	100	HU		Tanzania	0	TZ
Ireland	100	IE		Turks and Caicos Islands	100	TC
Isle of Man	100	IM		United Arab Emirates (Dubai)	100	AE
Italy	100	IT		United Kingdom	100	GB
Jersey	100	JE		USA	100	US

Maximum Risk (Haven Score 100)	Haven Score 76 - 99	Haven Score 51 - 75	Haven Score 26 - 50	Haven Score 1 - 25	Minimum Risk (Haven Score 0)

Table 7.3. Assessment Logic

Info_ID	Text_Info_ID	Answers (Codes applicable for all questions: -2: Unknown; -3: Not Applicable)	Valuation Haven Score
515	Patent Box: Does the jurisdiction offer preferential tax treatment for income related to intellectual property?	0: Yes, special tax treatment of IP-income is available without OECD nexus constraints; 1: Yes, special tax treatment of IP-income is available only with OECD nexus constraints; 2: No, there is no special tax treatment of IP-income.	0: 100 1: 90 2: 0

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