



Paul Fischer
Corporate and International Tax Division
The Treasury
Langton Cres
Parkes ACT 2600
E-mail: regmod@treasury.gov.au

Tax Justice Network Australia Submission on Patent Box policy design

16 August 2021

The Tax Justice Network Australia (TJN-Aus) welcomes this opportunity to make a submission in response to the Patent Box discussion paper on policy design.

We are concerned that introducing the patent box regime for the medical and biotechnology sectors will give away tax revenue for activities corporations would have already carried out. Further, we are concerned that once introduced, the patent box regime will be expanded over time to reduce the tax contributions corporations need to make on revenue derived from patents related to other business sectors. We are further concerned about the complexity of ensuring the integrity of the claims made by corporations against the lower tax rate in the patent box regime. As a result, there will be an incentive for corporations to seek to claim as much of their income as possible falls within the lower tax rate of the patent box.

We are also concerned that the Commonwealth Government's decision to introduce a patent box goes against the analysis of research and development incentives it could offer that would be better targeted to seeing technology developed and commercialised in Australia. As noted in the Treasury Ministerial Submission from 28 June 2019:

Australia has reviewed its R&D support and innovation a number of times, including through the National Innovation and Science Agenda, Review of the R&D Tax incentive and the Productivity Commission's Inquiry into Intellectual Property Arrangements. These reviews did not recommend the implementation of a patent box.

The advantage to the public interest of other forms of research and development assistance is that they can be targeted at developments in the public interest. By contrast, there is a risk that the government revenue given away in a patent box will support developments that may not be in the public interest based on what corporations find will be the most profitable activities.

Further, the policy will reward corporations that successfully bring their patents to commercialisation rather than assist corporations directly to ensure a patent will result in successful production. The funds could be better spent helping more patents making it to commercial production.

We prefer the Commonwealth Government adopt the recommendation of the 2016 R&D Tax Incentive review that the existing research and development tax benefit scheme be amended

to provide a 20% premium of the non-refundable offset where research and development is undertaken in collaboration with a publicly funded research organisation.¹

Gaessler, Hall and Harhoff argue that a patent box provides an extra incentive for the kind of research and development that least needs encouragement. That is research and development whose returns are already appropriable via the patent system.² They point out that a further limitation of a patent box is that it requires a patent or patents. Some desirable innovation activities may not be patentable. They also raise the concern that encouraging firms to patent solely to receive a tax break is perverse in an environment where there may already be too many patents. Some of those patents would be found invalid if challenged, providing possible rewards for such invalid patents.³

The documents we obtained from Treasury through Freedom of Information did not reveal how Treasury calculated the cost to government revenue from introducing the patent box regime. The documents also failed to disclose how the introduction of a patent box regime was assessed against other possible measures that could be used to support research and development in Australia and its commercialisation remaining in Australia. As pointed out in the Treasury Ministerial Submission from 28 June 2019:

patent boxes will decrease the revenue collected from already profitable IP rich companies. The UK patent box was forecast by HM Treasury to cost the UK revenue £1.1 billion per year in net terms. It is unclear if manufacturing investment would increase significantly as a result.

The losses to government revenue from the patent box will be ongoing.

Research by Chen et al. found higher levels of firm-country-year capital expenditures after the patent box policy is in place. The change in capital expenditures is greater than that for observations in non-patent box countries over the same period.⁴ The effect was greater in jurisdictions where there was a nexus requirement that some economic activity occurs in the jurisdiction for income to qualify for patent box benefits. It was also greater in jurisdictions with relatively large patent box tax benefits.⁵ The increase in capital expenditure was between 0.5 and 1.2%.⁶

At the same time, they found no employment benefits for countries that introduce patent box regimes. For those jurisdictions that offered larger tax benefits from the patent box or required a nexus of economic activity in the jurisdiction, there was a decrease in aggregate wages paid to employees.⁷ They concluded that the increased investment as a result of the patent box was not accompanied by increased jobs or wage levels.⁸ They found evidence that there was a reduction in the number of employees and aggregate wages paid after introducing a patent

¹ Sonali Walpola and Tracy Wang, 'Australia's Planned Patent Box: A Means of Stimulating Innovation?' Tax and Transfer Policy Institute, 25 May 2021.

² Fabian Gaessler, Bronwyn Hall and Dietmar Harhoff, 'Should there be lower taxes on patent income?', *Research Policy* **50** (2021), 2.

³ Fabian Gaessler, Bronwyn Hall and Dietmar Harhoff, 'Should there be lower taxes on patent income?', *Research Policy* **50** (2021), 2.

⁴ Shannon Chen, Lisa De Simone, Michael Hanlon and Rebecca Lester, 'The Effect of Innovation Box Regimes on Investment and Employment Activity', June 2021, 2.

⁵ Shannon Chen, Lisa De Simone, Michael Hanlon and Rebecca Lester, 'The Effect of Innovation Box Regimes on Investment and Employment Activity', June 2021, 3.

⁶ Shannon Chen, Lisa De Simone, Michael Hanlon and Rebecca Lester, 'The Effect of Innovation Box Regimes on Investment and Employment Activity', June 2021, 3.

⁷ Shannon Chen, Lisa De Simone, Michael Hanlon and Rebecca Lester, 'The Effect of Innovation Box Regimes on Investment and Employment Activity', June 2021, 3.

⁸ Shannon Chen, Lisa De Simone, Michael Hanlon and Rebecca Lester, 'The Effect of Innovation Box Regimes on Investment and Employment Activity', June 2021, 4.

box.⁹ However, after introducing the patent box, the wages per employee in firms impacted by the patent box increased, suggesting an increased focus on a smaller highly skilled labour force.¹⁰

Gaessler, Hall and Harhoff found that introducing a patent box reduces patent transfers out of a jurisdiction.¹¹ They found that neither patented inventions nor research and development investment increased in jurisdictions that offered a patent box.¹² They refer to previous research into the Netherlands patent box that found that the increased spending by corporations on research and development was about half of the lost tax revenue from the patent box.¹³

Baumann et al. found that a jurisdiction could reduce the risk that patent ownership would be sifted to low-tax jurisdictions if controlled foreign company (CFC) rules applied to the parent company located in the jurisdiction implementing the CFC rules.¹⁴ By contrast, they found the strictness of transfer pricing laws and their enforcement had only a mild effect on deterring corporations from shifting patents to low-tax secrecy jurisdictions.¹⁵ They found that propensity to separate patent ownership from the jurisdiction where the invention originated and locate it in a low-tax secrecy jurisdiction was correlated to the tax rate in the inventor's jurisdiction.¹⁶

Laurie Ciaramella from the Max Planck Institute for Innovation and Competition found that corporations shifted the location of existing patents to chase tax breaks. The effect was higher the more significant the tax break and the larger the expected revenues from patent ownership.¹⁷ The tax break semi-elasticity was around 12%, increasing to 25.7% for economically viable patents.¹⁸ However, the research found that different patent box regimes had different impacts on attracting patents. For example, it was found that for Ireland, for each patent it lost transferred to another country, it attracted three back. By contrast, the Spanish patent box regime lost four patents transferred to other countries for each patent its patent box regime attracted.¹⁹

⁹ Shannon Chen, Lisa De Simone, Michael Hanlon and Rebecca Lester, 'The Effect of Innovation Box Regimes on Investment and Employment Activity', June 2021, 34.

¹⁰ Shannon Chen, Lisa De Simone, Michael Hanlon and Rebecca Lester, 'The Effect of Innovation Box Regimes on Investment and Employment Activity', June 2021, 34.

¹¹ Fabian Gaessler, Bronwyn Hall and Dietmar Harhoff, 'Should there be lower taxes on patent income?', *Research Policy* **50** (2021), 1.

¹² Fabian Gaessler, Bronwyn Hall and Dietmar Harhoff, 'Should there be lower taxes on patent income?', *Research Policy* **50** (2021), 13.

¹³ Fabian Gaessler, Bronwyn Hall and Dietmar Harhoff, 'Should there be lower taxes on patent income?', *Research Policy* **50** (2021), 4.

¹⁴ Martina Baumann, Tobias Boehm, Bodo Knoll and Nadine Riedel, 'Corporate Taxes, Patent Shifting, and Anti-avoidance Rules: Empirical Evidence', *Public Finance Review* **48(4)** (2020), 467-468.

¹⁵ Martina Baumann, Tobias Boehm, Bodo Knoll and Nadine Riedel, 'Corporate Taxes, Patent Shifting, and Anti-avoidance Rules: Empirical Evidence', *Public Finance Review* **48(4)** (2020), 467-469.

¹⁶ Martina Baumann, Tobias Boehm, Bodo Knoll and Nadine Riedel, 'Corporate Taxes, Patent Shifting, and Anti-avoidance Rules: Empirical Evidence', *Public Finance Review* **48(4)** (2020), 467-469.

¹⁷ Laurie Ciaramella, 'Taxation and the Transfer of Patents: Evidence from European Patent Boxes', 4.

¹⁸ Laurie Ciaramella, 'Taxation and the Transfer of Patents: Evidence from European Patent Boxes', 35.

¹⁹ Laurie Ciaramella, 'Taxation and the Transfer of Patents: Evidence from European Patent Boxes', 18.

Binding CFC rules and withholding taxes on royalty payments between affiliates were found to reduce the level of intra-group patent transfers.²⁰ It was also found that policymakers could tighten conditions imposed on patent acquirers to deter patent transfers driven by fiscal optimisation purposes, that is driven by the desire to pay the minimum amount of tax possible.²¹

However, it is a minority of patents that are shifted. Ciaramella reported that around 20% of European Patent Office patents are transferred intra-group. The proportion of European Patent Office patents that are transferred inter-group was approximately 10%.²²

The research found no significant effect of patent boxes on inter-group transfers, that is, on the location of purchased patents. Moreover, the absence of an effect was found to hold in a broad range of specifications and lasted over time.²³ Ciaramella concluded that the finding indicated that there seemed to be no effect of patent box policies in attracting the location of patents traded on the technology market. The impact of patent box arrangements appeared to be limited to asset shifting within multinational groups.²⁴

Haufler and Schindler raised the concern that an increase in innovation activity has been erroneously assigned to patent box arrangements when it has been the result of direct research and development subsidies provided by governments.²⁵

1. What features of patent boxes in other jurisdictions are most significant and important for designing the Australian patent box to support the medical and biotechnology sectors?

Gaessler, Hall and Harhoff point out that previous academic literature found that while there was a tax advantage for corporations able to access the patent box, there was also a small negative effect on the local invention. The impact could be addressed if there is a local development requirement.²⁶

They also point out that the requirement that further development of an invention takes place within the jurisdiction where the patent box is offered to benefit from the lower tax rate mitigated transfers of patents for purely tax reasons.²⁷

20. What types of patent-related revenue should be eligible for the patent box?

If a patent box regime is implemented for the medical and biotechnology sectors, it should only be available for developments that are in the public interest. Such a restriction would apply to technology that is targeted at improving health and well-being.

²⁰ Laurie Ciaramella, 'Taxation and the Transfer of Patents: Evidence from European Patent Boxes', 4.

²¹ Laurie Ciaramella, 'Taxation and the Transfer of Patents: Evidence from European Patent Boxes', 4.

²² Laurie Ciaramella, 'Taxation and the Transfer of Patents: Evidence from European Patent Boxes', 5.

²³ Laurie Ciaramella, 'Taxation and the Transfer of Patents: Evidence from European Patent Boxes', 4.

²⁴ Laurie Ciaramella, 'Taxation and the Transfer of Patents: Evidence from European Patent Boxes', 4-5.

²⁵ Andreas Haufler and Dirk Schindler, 'Attracting Profit Shifting or Fostering Innovation? On Patent Boxes and R&D Subsidies', CESifo Working Papers 8640, October 2020, 28.

²⁶ Fabian Gaessler, Bronwyn Hall and Dietmar Harhoff, 'Should there be lower taxes on patent income?', *Research Policy* 50 (2021), 3.

²⁷ Fabian Gaessler, Bronwyn Hall and Dietmar Harhoff, 'Should there be lower taxes on patent income?', *Research Policy* 50 (2021), 14.

Dr Mark Zirnsak
Secretariat
Tax Justice Network Australia
c/- 29 College Crescent
Parkville, Victoria, 3052
Phone: 0409 166 915
E-mail: mark.zirnsak@victas.uca.org.au

Background on the Tax Justice Network Australia

The Tax Justice Network Australia (TJN-Aus) is the Australian branch of the Tax Justice Network (TJN) and the Global Alliance for Tax Justice. TJN is an independent organisation launched in the British Houses of Parliament in March 2003. It is dedicated to high-level research, analysis and advocacy in the field of tax and regulation. TJN works to map, analyse and explain the role of taxation and the harmful impacts of tax evasion, tax avoidance, tax competition and tax havens. TJN's objective is to encourage reform at the global and national levels.

The Tax Justice Network aims to:

- (a) promote sustainable finance for development;
- (b) promote international co-operation on tax regulation and tax-related crimes;
- (c) oppose tax havens;
- (d) promote progressive and equitable taxation;
- (e) promote corporate responsibility and accountability; and
- (f) promote tax compliance and a culture of responsibility.

In Australia, the current members of TJN-Aus are:

- ActionAid Australia
- Aid/Watch
- Anglican Overseas Aid
- Australian Council for International Development (ACFID)
- Australian Council of Social Service (ACOSS)
- Australian Council of Trade Unions (ACTU)
- Australian Education Union
- Australian Manufacturing Workers Union
- Australian Nursing & Midwifery Federation
- Australian Services Union
- Australian Workers Union, Victorian Branch
- Baptist World Aid
- Caritas Australia
- Community and Public Service Union
- Electrical Trades Union, Victorian Branch
- Evatt Foundation
- Friends of the Earth
- GetUp!
- Greenpeace Australia Pacific
- International Transport Workers Federation
- Jubilee Australia
- Maritime Union of Australia
- National Tertiary Education Union
- New South Wales Nurses and Midwives' Association
- Oaktree Foundation
- Oxfam Australia
- Save the Children Australia
- Save Our Schools
- SEARCH Foundation
- SJ around the Bay
- Social Policy Connections
- TEAR Australia
- The Australia Institute
- Union Aid Abroad – APHEDA
- UnitedVoice

- Uniting Church in Australia, Synod of Victoria and Tasmania
- UnitingWorld
- Victorian Trades Hall Council
- World Vision Australia