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**Research Report**

## What is the substance-based carve-out under Pillar 2? And how will it affect tax competition?

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## What Is the Substance-Based Carve-Out under Pillar 2? And How Will It Affect Tax Competition?

*Michael P. Devereux, Martin Simmler, John Vella and Heydon Wardell-Burrus  
(Oxford University Centre for Business Taxation)*

### Key Messages

- The success of the recently agreed international tax reform hinges on a technical issue in the design of the Pillar 2 global minimum tax
- Pillar 2 ensures the minimum taxation of ‘residual’ (e.g. non-routine) profits at 15%. ‘Routine’ profit is not subject to Pillar 2.
- The effects depend on which of two possible options is used:
  - Option 1 removes the incentive to compete below a liability of 15% of residual profits and puts a floor to tax competition
  - Option 2 still maintains an incentive for governments to compete by reducing their taxes – possibly all the way to zero.
- Consequences for tax competition depend on the technical details to be revealed. Announcement containing more details of the proposal are expected shortly.



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# What Is the Substance-Based Carve-Out under Pillar 2? And How Will It Affect Tax Competition?

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*Oxford University Centre for Business Taxation*

November 17, 2021

On 8 October 2021 Secretary of the Treasury Janet L. Yellen claimed that: “As of this morning, virtually the entire global economy has decided to end the race to the bottom on corporate taxation.”<sup>1</sup> Tax competition threatens the long-term viability of the existing international corporate tax system and bringing it to an end would thus be a veritable game-changer. But is Secretary Yellen correct? Will the OECD/G20 Inclusive Framework’s “Two Pillar Solution” that has now been agreed by 137 jurisdictions, in particular the global minimum tax found in Pillar 2, bring competition in corporate taxation to an end?<sup>2</sup> This note examines one of the factors that will determine the impact of Pillar 2 on tax competition: the design of the substance-based carve-out.

The substance-based carve-out has been a source of intense disagreement among countries for some time, with preferences over the carve-out reflecting those over the objectives Pillar 2 ought to pursue. Some countries opposed a substance-based carve-out on the grounds that it weakens Pillar 2’s impact on tax competition, which they view as Pillar 2’s primary objective. Other countries favoured a generous substance-based carve-out, as this would be more permissive of tax competition over real activity thus narrowing Pillar 2’s objective to that of addressing profit shifting.

The Statement of 8 October 2021 agreed by 137 members of the OECD/G20 Inclusive Framework provides scant information on the carve-out:

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<sup>1</sup> Statement from Secretary of the Treasury Jane L Yellen on the OECD Inclusive Framework Announcement, 8 October 2021.

<sup>2</sup> Note that the 137 jurisdictions have not agreed to adopt Pillar 2. As the 8 October 2021 Statement explains: “The GloBE rules will have the status of a common approach. This means that IF members:

- are not required to adopt the GloBE rules, but, if they choose to do so, they will implement and administer the rules in a way that is consistent with the outcomes provided for under Pillar Two, including in light of model rules and guidance agreed to by the IF;
- accept the application of the GloBE rules applied by other IF members including agreement as to rule order and the application of any agreed safe harbours.”

OECD/G20 Base Erosion and Profit Shifting Project, *Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy* (8 October 2021).

“The GloBE<sup>3</sup> rules will provide for a formulaic substance carve-out that will exclude an amount of income that is 5% of the carrying value of tangible assets and payroll. In a transition period of 10 years, the amount of income excluded will be 8% of the carrying value of tangible assets and 10% of payroll, declining annually by 0.2 percentage points for the first five years, and by 0.4 percentage points for tangible assets and by 0.8 percentage points for payroll for the last five years.”

For more detail one must turn to the October 2020 Blueprint (the “Blueprint”).<sup>4</sup> But even the Blueprint does not provide a clear picture on the design of the carve-out. Its description and discussion of the carve-out can be interpreted to mean one of two models (which we call Models A and B). The Blueprint also explained that consideration was to be given to a third model (Model C).

This note sets out the differences between these models and how they would affect the impact of Pillar 2 on tax competition.

Model A defines the Pillar 2 effective tax rate (to compare to the threshold of 15%) as domestic covered taxes as a proportion of financial profit net of the carve-out. Model B instead defines the ETR relative to financial profit gross of the carve-out. Model C would adjust both the numerator and denominator of the ETR for the carve-out. A starting point of our analysis is to show that Models B and C (at least the most plausible interpretation of Model C) are equivalent. Of the two, Model B has an advantage of being simpler.

Model A and Models B and C have different effects on the incentives for countries to compete. To understand these incentives, a starting point is to recognise the benefits and costs to governments of reducing their domestic tax liability. The cost is simply potential revenue foregone. The benefit is the possible inflow of new investment, which depends in turn on the reduction in the tax liability of the multinational taxpayer. Under the existing system, a \$1 reduction in the tax collected is matched by a \$1 reduction in the tax paid by the multinational. But this is not generally true under Pillar 2.

Under Model A, if the domestic tax liability is below the Pillar 2 threshold of 15% of financial profit net of the carve-out, then a \$1 reduction in domestic tax does not affect the multinational’s tax liability at all; that tax is simply collected elsewhere. In this case, the incentive of the domestic government to reduce domestic tax to attract new investment disappears; the government has no incentive to set its domestic tax liability below the Pillar 2 threshold. Model A may therefore reasonably be expected to “put an end to the race to the bottom on corporate taxation” – though replacing that perhaps with a race to the Pillar 2 threshold.

However, this is not the case under Models B and C. In these cases, the threshold is higher - 15% of financial profit gross of the carve-out – which in itself implies a more far-reaching

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<sup>3</sup> Pillar 2 is made up of the Global Base Erosion rules (GloBE) and the Subject to Tax Rule. In turn, GloBE is made up of the Income Inclusion Rule and the Undertaxed Payment Rule.

<sup>4</sup> OECD (2020) “Tax Challenges Arising from Digitalisation – Report on Pillar Two Blueprint”, OECD Publishing, Paris.

impact on competition. But in these cases, if the domestic tax liability is below the Pillar 2 threshold, a \$1 reduction in the domestic tax liability *does* reduce the total tax liability of the multinational, albeit not by as much as \$1. Depending on how much it values inward investment, that leaves open the possibility that the government may choose to compete by reducing the domestic tax liability below the Pillar 2 threshold – and even conceivably to zero. Models B and C therefore seem less likely to “put an end to the race to the bottom on corporate taxation”.

The OECD/G20 Inclusive Framework is expected to release further details on Pillar 2 in the coming weeks. It appears reasonable to assume that the choice will be made among one of these three models. This note thus sets out how Pillar 2 will affect tax competition, whichever option is adopted. It also shows how a seemingly arcane and technical issue can have a very significant impact on Pillar 2 and the extent to which it achieves one of its stated objectives.

This note does not address all the factors that may affect a country’s response to other countries’ adoption of Pillar 2. It does not consider competition for businesses which lie outside the scope of Pillar 2, be they purely domestic businesses or businesses below the size threshold. The note also does not address a number of technical issues concerning the carve-out, for example, its measurement. The focus of this note is on the different possible designs of the carve-out within the broad outline set out in the October 2020 Blueprint, and their impact on tax competition.

Section 2 of this note describes and contrasts Models A, B and C and how they affect Pillar 2’s impact on tax competition. Section 3 concludes. An Appendix provides a more detailed algebraic analysis.

## **2. What is the Substance-Based Carve-Out?**

### ***2.1 Models A, B and C***

The substance-based carve-out is defined in a box in Section 4.4 of the Blueprint: “Computation of the ETR and top-up tax”. Two steps are set out in the calculation of the top-up.

1. Calculate the Effective Tax Rate (*ETR*) as:

$$ETR = \frac{\textit{Adjusted Covered Taxes}}{\textit{Adjusted GloBE Income}}$$

2. Calculate the Pillar 2 top-up as

$$\textit{max}(15\% - ETR, 0) * \textit{Adjusted GloBE Income of the Constituent Entity}$$

"Adjusted GloBE Income of the Constituent Entity" is explicitly defined as being net of a substance-based carve-out, but "Adjusted Globe Income" is not. This suggests that "Adjusted Globe Income" – the denominator in the calculation of the ETR – may be gross of a substance-based carve-out.<sup>5</sup> But some may read this as being net of a substance-based carve, and other parts of the Blueprint and the Economic Impact Assessment support this view.<sup>6</sup> This ambiguity gives rise to two possible measurements of the ETR, one in which the denominator is net of the carve-out (Model A) and another in which it is gross of the carve-out (Model B).

A third possibility arises in the context of paragraph 335 of the Blueprint, which states:

"Further consideration will be given, in light of the policy rationale behind the formulaic substance-based carve-out, to the effect of the carve-out on the calculation of the ETR and top-up taxes under the GloBE, particularly whether an MNE group that claims the benefit of the carve-out should be required to make a corresponding and proportional adjustment to the covered taxes."

In the Appendix, we consider a number of possible interpretations of making an adjustment to the numerator of the ETR calculation as well as to the denominator (i.e. as an adjustment to Model A). The most plausible adjustment is one in which – the domestic tax liability is reduced by a "proportion" given by the ratio of the substance-based carve-out to financial accounting profit. This is Model C. The Economic Impact Assessment explicitly notes that Models A and C are possible outcomes, and proceeds to analyse Model C.<sup>7</sup>

However, it turns out that Model C has exactly the same impact as Model B. If that is a desired outcome, it would be more straightforward to apply Model B, without making a "corresponding and proportional" adjustment to the numerator which cancels out the equivalent adjustment in the denominator.

For greater precision in outlining the implications of the different possibilities, it is useful to define variables as:

$P$ = total financial accounting profit
$C$ = carve-out
$R = P - C$ = "residual" profit
$T$ = covered taxes paid in the host domestic country

Table 1 summarises these three models and compares them to the outcome if Pillar 2 did not have a substance-based carve-out.

<sup>5</sup> Other statements in the Blueprint and the Economic Impact Assessment suggest that Adjusted GloBE Income is net of the substance-based carve-out.

<sup>6</sup> See for example, Blueprint, op. cit. para 335 and OECD (2020) "Tax Challenges Arising from Digitalisation – Economic Impact Assessment", OECD Publishing, Paris, para 206.

<sup>7</sup> OECD (2020) "Tax Challenges Arising from Digitalisation – Economic Impact Assessment", para 206.

**Table 1. Alternative Models**

	<b>No Carve-Out</b>	<b>Model A</b>	<b>Model B</b>	<b>Model C</b>
<b>1. ETR</b>				
<i>Numerator</i>	Tax paid	Tax paid	Tax paid	Tax paid less a proportional adjustment of <i>C/P</i>
<i>Denominator</i>	Accounting income	Accounting income less carve-out	Accounting income	Accounting income less carve-out
<b>2. Top-Up Rate</b>	15%-ETR	15%-ETR	15%-ETR	15%-ETR
<b>3. Top-Up = (Top-up rate*)</b>	Accounting income	Accounting income less carve-out	Accounting income less carve-out	Accounting income less carve-out

**2.2. Example illustrating the impact of Models A, B and C on tax competition**

The decision for the domestic government about competition balances the marginal benefit and marginal cost of a change in the domestic tax liability (T). Without Pillar 2, a reduction in the domestic tax liability, *T*, of \$1 would have (a) a marginal cost of reducing potential government revenue by \$1, and (b) a marginal benefit to the multinational of reducing its tax liability by \$1, which may make it more likely that the multinational may choose to locate investment in that country, with the direct and indirect benefits that may be bring. With Pillar 2, the marginal benefit depends on whether a carve-out is included, and which model is used.

The differences between the models and how they affect tax competition are expressed algebraically in the Appendix to this note. We here illustrate these differences through the following example.

Country X levies a tax on corporate profit at 10% of financial accounting profit. We assume the following values:

Financial Profit	1000
Profit Covered by Carve-Out	400
Residual Profit	600
Total Domestic Tax	100

Given these values, Table 2 shows the tax liability under each of the models.



**Table 2. Tax liabilities with 10% tax rate**

	<b>No Carve-Out</b>	<b>Model A</b>	<b>Model B</b>	<b>Model C</b>
<b>1. ETR</b>				
Numerator	100	100	100	60
Denominator	1,000	600	1,000	600
ETR	10%	16.67%	10%	10%
<b>2. Top-Up Rate</b>	5%	No Top-Up	5%	5%
<b>3. Top-Up Tax</b>	5% of 1,000 =50	No Top-Up	5% of 600 =30	5% of 600 =30
<b>Total Tax Liability</b>	150	100	130	130

In the absence of any carve-out the Pillar 2 top-up is straightforward. The domestic tax is 10% of the financial profit of 1,000, and Pillar 2 would top this up to 15% of financial profit, implying a top-up tax of 50.

Under Model A, the denominator of the ETR is defined as profit net of the carve-out, i.e. 600. Given the tax payment of 100, this implies an ETR of 16.67%. Since this exceeds the Pillar 2 threshold of 15%, there would be no top-up tax in this case. Under Model B, the denominator of the ETR is gross of the carve-out, i.e. 1,000. In this case, the ETR is 10%. However, unlike the no carve-out case, the top-up rate of 5% is applied only to profit net of the carve-out, i.e. 600, yielding a top-up of only 30.

For Model C, the covered taxes are reduced by 40% - the ratio of the carve-out to financial profit. The numerator is therefore 60, and this is combined with a deduction for the carve-out income in the denominator. This yields an ETR of 10%. This is the same as Model B. In fact, this equivalence of Model B and Model C is not specific to this example, but is quite general, as we show in the Appendix. Adjusting the numerator and the denominator in these ways is equivalent to making no adjustments. Given this equivalence, we do not discuss Model C separately; all comments relating to Model B apply equally to Model C.

To consider the impact of these different models on the incentive to compete, suppose that the government considers reducing its tax rate to 9%. It would therefore reduce its revenue from 100 to 90 – a reduction of 10. In the absence of Pillar 2, there would also be a reduction in the corporation’s tax liability of 10. The consequences for the total tax paid by the corporation in the presence of Pillar 2 are shown in Table 3.

**Table 3. Reduction in tax rate to 9%**

	<b>No Carve-Out</b>	<b>Model A</b>	<b>Model B</b>	<b>Model C</b>
<b>1. ETR</b>				
Numerator	90	90	90	54
Denominator	1,000	600	1,000	600
ETR	9%	15%	9%	9%
<b>2. Top-Up Rate</b>	6%	No Top-Up	6%	6%
<b>3. Top-Up</b>	60	No Top-Up	36	36
<b>Total Tax Paid by Co</b>	150	90	126	126
<b>Change in total tax paid</b>	0	-10	-4	-4

If Pillar 2 is adopted without a carve-out, the tax paid by the corporation would be unchanged. This would remain the case for any change in the tax rate below the threshold of 15%.

Under Model A, however, the ETR falls to 15%, so there is still no top-up tax. The reduction in the tax paid by the corporation is 10, just as in the absence of Pillar 2. By contrast, under Models B and C, the total tax falls by 4: the ETR falls to 9%, implying that the top-up is 6% of the profit net of the carve-out, 600 – an increase in the top-up of 6.<sup>8</sup> In this case, then, there is some benefit to the corporation, but that benefit is reduced by Pillar 2.

What if there was a further reduction in the tax rate by one percentage point, to 8%? It is straightforward to see that the change in the total tax liability remains zero in the absence of a carve-out, and a reduction of 4 in Models B and C. However, there would be a change in Model A. Total tax would fall to 80, implying a Model A ETR of 13.3%. This would lead to a Pillar 2 top-up of 1.67% of 600, i.e. a top-up of 10. This would precisely cancel out the gain to the corporation of the reduction of 10 in the domestic tax liability. Hence, in this example, there would be no incentive for the government to reduce its tax rate below 9%.

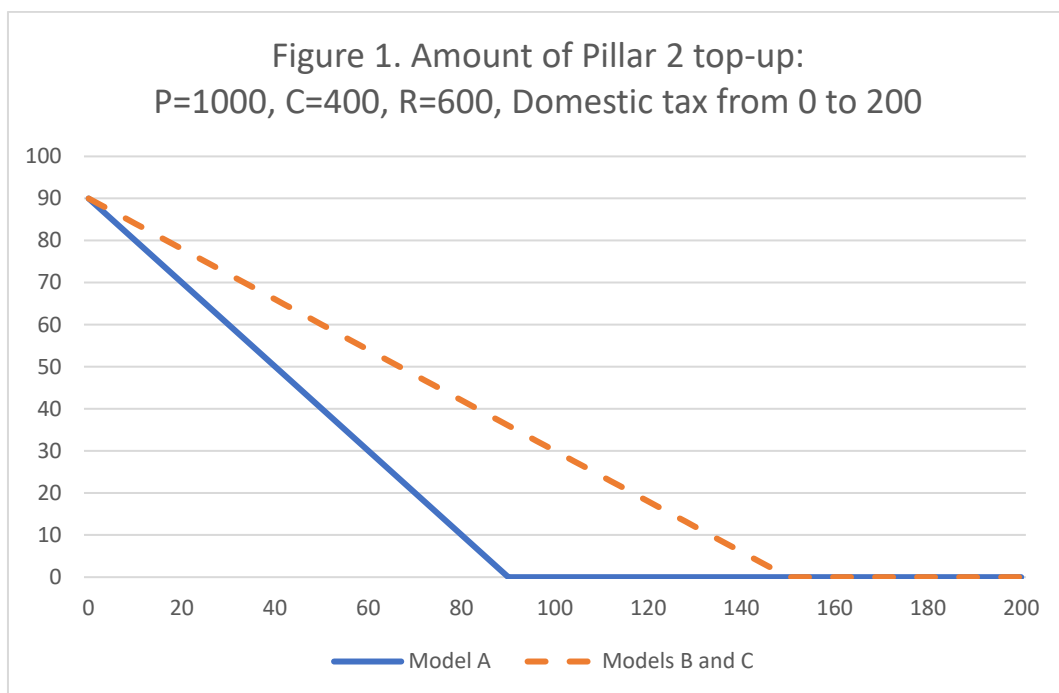
The impact of Pillar 2 shown in these tables depends on the domestic tax liability – the product of the tax rate and tax base. To illustrate this further, Figures 1 and 2 show the position of this example for a range of values of the domestic tax liability from zero to 200 (shown on the

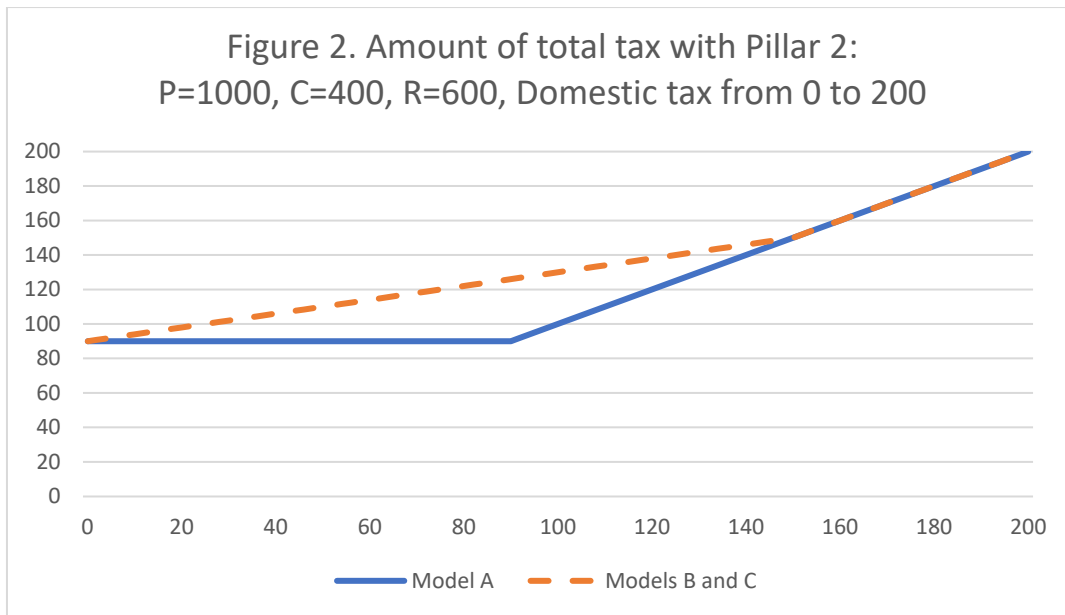
<sup>8</sup> We show in the Appendix that a fall of \$1 in the domestic liability, leads to a reduction in total tax of  $C/P$ .

horizontal axis in each case). Figure 1 shows how the Pillar 2 top-up tax for Model A and Models B and C varies with the domestic tax liability. Figure 2 shows how the size of the total tax liability under Pillar 2 for Model A and for Models B and C varies with the domestic tax liability.

At the far left of each Figure, domestic tax is zero. As a result, the Pillar 2 top-up is the only tax. Both Model A and Models B and C would apply the threshold tax rate of 15% to financial profit net of the carve-out, here defined as residual profit,  $R=600$ . The tax levied is therefore 90 in both cases. As the domestic tax rises from zero, the Pillar 2 top-up tax falls under both Model A and Models B and C. However, it falls more sharply under Model A, since the deemed top-tax rate is lower under Model A. Under Model A this initially results in no change in the total tax liability. The higher tax charge under Models B and C does, however, result in a higher overall tax liability, as shown in Figure 2.

This situation continues until the domestic tax liability reaches 90. At this point, as we have already seen, the top-up under Model A falls to zero. Under Model A, for values of the domestic tax above 90, there is no Pillar 2 tax, and the total tax is only the domestic tax. Under Models B and C, this position is not reached until the domestic tax is 150. For values below 150, Models B and C yield a higher Pillar 2 top-up, and a higher overall tax liability. For values of the domestic tax above 150, then there is no Pillar 2 tax in either case, and so the total tax liabilities are the same for Model A and Models B and C.





### 2.3 Conclusions on the impact of Models A, B and C on tax competition

It is clear from the analysis above that the impact on tax competition depends on whether Model A or Models B or C are chosen, and on the size of the domestic tax liability. Table 4 summarises the effects.

**Table 4. Summary of effects on incentive to compete**

Domestic Tax Liability	Model A	Model B
Greater than 15% of financial profit ( $P$ )	No direct impact on tax competition	No direct impact on tax competition
Between 15% of Residual profit ( $R$ ) and 15% of financial profit ( $P$ )	No direct impact on tax competition	Incentive for competition reduced, but not eliminated
Below 15% of Residual profit ( $R$ )	Incentive to compete eliminated	Incentive for competition reduced, but not eliminated

Under Model A, there is no incentive for the government to levy a tax below 15% of residual profit. Doing so would not affect the total tax liability of the multinational company. However, above 15% of residual profit, there would be no Pillar 2 tax, and so existing incentives would be maintained.

Under Models B and C, a reduction in the domestic tax liability of \$1 results in a reduction in the overall tax liability of the multinational company of the \$1 multiplied by the ratio of the carve-out income to financial profit ( $C/P$ ). In the example, with a carve-out of 400 and financial profit of 1,000, the total tax liability would fall by 40 cents. As the carve-out increases, the total tax liability would fall by more. For example, with a carve-out of 800, the total tax liability would fall by 80 cents. The incentive to compete therefore depends on the size of the carve-out relative to financial profit. For a domestic tax liability above 15% of financial profit, existing incentives to compete would be maintained.

## **2.4 Related issues**

There are several issues that have not arisen in the context of our example, which we discuss briefly now.

First, in the analysis of a single example, the effects of Pillar 2 on tax competition depend only on the domestic tax liability – not separately on the domestic tax rate and tax base. However, when considering the position of several different companies at the same time, this may no longer hold. Second, and related to this, governments may want to choose their tax base for reasons other than tax competition; we briefly consider how such choices may be constrained by Pillar 2. Third, and also related, in defining the tax base, we have not yet considered issues of timing. Fourth, we briefly comment on broader issue of tax competition. Fifth we note the possibility of an alternative minimum tax in the context of Model A.

On the first issue, suppose, for example, that the government would like to charge a domestic tax equal to the Pillar 2 threshold – under either Model A or Models B or C. For Model A, the tax liability must be 15% of residual profit, and for Model B or C it must be 15% of financial profit. Suppose, also, that on average residual profit is 60% of financial profit, as in our example. Then, on average, the Model A target could be achieved with a 15% tax rate applied to a base of residual profit, or a 9% tax rate applied to a base of financial profit. Similarly, on average, the Model B or C target could be achieved with a 15% tax rate applied to financial profit, or a 25% tax rate applied to residual profit. However, this equivalence does not apply for all companies subject to the tax, for whom residual profit may not be equal to 60% of financial profit. Instead, to be sure of hitting these targets for all companies, the tax bases would have to be aligned with the relevant Pillar 2 threshold.

Second, abstracting from competition, governments may reasonably set a tax base other than financial profit, or financial profit less the rather arbitrary Pillar 2 carve-out. For example, it may wish to set its tax base equal to economic rent, as has been advocated by many economists on the grounds that it is a relatively efficient tax base. Although there is some resemblance of economic rent with residual profit (defined as financial profit less the Pillar 2 carve-out), there could be substantial differences. Alternatively, it may well wish to promote activities with a positive externality, such as research and development. Unless there are special provisions to accommodate such tax bases – and these are to some extent addressed in the Blueprint in Section 3.3.7 - then their effects may be either reduced, or negated entirely,

by the implementation of Pillar 2. The mechanisms under which this would occur are the same as those already described above.

Third, the Blueprint has a section that addresses immediate expensing and accelerated depreciation of assets (Section 3.3.5). This is important in the context of the timing of tax liabilities, an issue also separately explored in the Blueprint (Sections 4.1 and 4.2). We do not explore these issues in this note. However, we note that a tax on economic rent may be generated through immediate expensing (and no deduction for the cost of finance); to maintain the neutrality properties of such a tax, any carry forwards should in principle be marked-up by an appropriate interest rate.

Fourth, Pillar 2 applies only to a specific group of relatively large corporations. We have discussed the consequences for tax competition for these corporations. But domestic governments may respond to the Pillar 2 thresholds by introducing different tax regimes for corporations subject to, and not subject to, Pillar 2. The latter may be subject to similar competitive pressures as under the existing system, although that depends on the extent to which smaller corporations are as mobile as larger corporations.

Fifth, the approach adopted will impact on the design requirements of any domestic minimum tax adopted in response to Pillar 2. The Blueprint explicitly envisages the possibility that states may implement domestic minimum taxes on the same basis as the GloBE rules to ensure that no top-up tax is imposed with respect to their jurisdiction.<sup>9</sup> If Model A is adopted, there is an incentive to set an alternative minimum tax at 15% of the financial profit net of the carve-out. In this case, the domestic minimum tax would simply replace the Pillar 2 top-up tax by imposing the same tax liability domestically. However, if Model B or C were adopted, then in order to avoid a Pillar 2 top-up, the government would need to set a minimum tax at 15% of financial profit gross of the carve-out. Increasing a tax liability to this point would involve a greater increase in the domestic tax than would be levied under the Pillar 2 carve-out, since the latter would only apply to financial profit net of the carve-out. That makes this option less likely under Model B or C.

### **3. Conclusions**

The impact of Pillar 2 on combatting tax competition depends on exactly how the substance-based carve-out is applied. This note analyses three possible approaches, two of which are equivalent to each other.

What we have called Model A would define the Pillar 2 ETR as domestic covered taxes as a proportion of financial profit net of the carve-out. Model B would instead define the ETR relative to financial profit gross of the carve-out. Model C would result in exactly the same outcome as Model B, by adjusting both the numerator and denominator of the ETR for the carve-out.

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<sup>9</sup> Blueprint, op. cit. para. 502.

There are two main differences between Model A and Models B and C.

First, Model A would introduce a threshold below which countries have no incentive to compete. Tax competition may continue above the threshold, but any “race to the bottom” would be replaced by a “race to the Pillar 2 threshold”. Models B and C would reduce the incentives for governments to compete, but they may continue to do so by reducing domestic taxes below the Pillar 2 threshold (and even to zero).

Second, the threshold imposed under Model A is lower than that under Models B and C. That means that under Models B and C, Pillar 2 would limit tax competition at higher levels of domestic taxation.

## Appendix

We begin by examining the properties of Models A and B. Define

$P$  = total financial accounting profit

$C$  = carve-out

$R = P - C$  = “residual” profit

$T$  = covered taxes paid in the host domestic country

### Model A.

Effective Tax Rate:

$$ETR_A = \frac{T}{R}$$

Pillar 2 top-up:

$$P_A = \max(0.15R - T, 0)$$

Total tax liability

$$Z_A = \max(0.15R, T)$$

If Model A is introduced, Pillar 2 would ensure that total tax paid is at least 15% of  $R$ .

### Model B.

Effective Tax Rate:

$$ETR_B = \frac{T}{P}$$

Pillar 2 top-up:

$$P_B = \max\left(\left\{0.15 - \frac{T}{P}\right\}R, 0\right)$$

Total tax liability

$$Z_B = \max\left(0.15R + T\frac{C}{P}, T\right)$$

If Model B is introduced, Pillar 2 would ensure that total tax paid is at least 15% of  $R$  plus a proportion equal to  $C/P$  of the domestic tax.



## Comparing the two cases

Clearly, both whether additional tax needs to be paid, and amount of the top-up, depend on the model used.

- Since  $P > R$ ,  $ETR_A > ETR_B$ . Hence – conditional on economic outcomes ( $P$  and  $C$ ) - there will be a range of values of  $T$  which generate a Pillar 2 top-up under Model B, but not Model A. Specifically, for

$$\frac{T}{P} < 0.15 < \frac{T}{R}$$

Model B will yield a Pillar 2 top-up, but Model A will not.

- Conditional on  $T$ , and conditional on there being a top-up, Model B yields a higher top-up and hence a higher overall tax liability. For Model A, total tax is  $0.15R$ . For Model B it is  $0.15R + TC/P$ . The difference therefore depends on the economic values ( $P$  and  $C$ ) and the domestic tax liability.

In general, we can think of the domestic tax as being  $T = \tau(P - G)$ , where  $G$  is an arbitrary deduction from financial accounting profit. In this case, the amount by which the total tax imposed under Model B exceeds that imposed under Model A (conditional on both approaches yielding a Pillar 2 top-up) is:

$$T \frac{C}{P} = \tau C \left(1 - \frac{G}{P}\right)$$

One special case is worth noting:  $G = 0$  – that is domestic tax is based on financial accounting profit. Then, again conditional on both approaches yielding a Pillar 2 top-up, the difference in the outcome for total tax is  $\tau C$ . Arguably, this might be exactly what some Pillar 2 advocates prefer. The total tax can be seen as a 15% tax on residual profit plus the local tax on “normal” profit, defined by the carve-out.

## Competition

For Model A, if  $T < 0.15R$ , there is no incentive for the government to reduce its tax. Doing so would reduce government revenue but has no impact on the multinational’s tax base. This implies that there is no rationale for levying domestic tax below  $0.15R$ . A country with an existing  $T < 0.15R$  may therefore be expected to raise its tax liability to be equal to  $0.15R$ .

For Model B, for  $T < 0.15P$ , the tax levied under Pillar 2 is  $0.15R + TC/P$ . Suppose in this case that the government reduces  $T$  by \$1. Then the multinational’s tax bill is reduced by  $\$C/P$ . Unlike in Model A, depending on the value of inward investment, there may still be an incentive for the government to keep a low tax rate, even possibly at zero.

## Adjusting covered taxes

Paragraph 335 of the October 2020 Blueprint raises the possibility that “an MNE group that claims the benefit of the carve-out should be required to make a corresponding and proportional adjustment to the covered taxes”.

The idea that the adjustment should be “corresponding” seems to indicate that it would apply only when the denominator of the ETR is also adjusted for income represented by the carve-out. In the analysis here that is Model A. We therefore focus the analysis on Model A.

It is not obvious what a “proportional” adjustment would be since that seems to depend on the underlying base. Take the most general case, of the base being  $P - G$ . Then there seem to be two possibilities for a “proportional adjustment”:

- (i) deduct a fraction  $C/(P - G)$  from the tax liability in the numerator, or
- (ii) deduct a fraction  $C/P$  from the tax liability in the numerator.

In approach (i), the *ETR* becomes

$$ETR_A = \frac{T - \tau C}{R}$$

This approach is therefore equivalent to simply deducting the domestic tax on the income represented by the carve-out ( $\tau C$ ) from the numerator. This does not seem appropriate when it is quite possible that an adjustment of this sort has already incorporated into the tax base through  $G$ .

In approach (ii), the *ETR* becomes

$$ETR_A = \frac{T\{1 - C/P\}}{R} = \frac{T}{P}$$

This is exactly the same outcome as in Model B above, where there is no adjustment to covered taxes. The analysis in that case therefore also applies in this case.

## EconPol Europe

EconPol Europe - The European Network for Economic and Fiscal Policy Research is a unique collaboration of policy-oriented university and non-university research institutes that will contribute their scientific expertise to the discussion of the future design of the European Union. In spring 2017, the network was founded by the ifo Institute together with eight other renowned European research institutes as a new voice for research in Europe.

The mission of EconPol Europe is to contribute its research findings to help solve the pressing economic and fiscal policy issues facing the European Union, and thus to anchor more deeply the European idea in the member states. Its tasks consist of joint interdisciplinary research in the following areas

- 1) sustainable growth and 'best practice',
- 2) reform of EU policies and the EU budget,
- 3) capital markets and the regulation of the financial sector and
- 4) governance and macroeconomic policy in the European Monetary Union.

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