

# Estimating of Revenue Foregone (Direct Taxes) Practical Exercise

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Ministry of Finance of Georgia

# Group Exercise

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- Excel file about the CIT returns
- 50 companies (taxpayer ID)
- 7 years (2016-2022)
- Statutory CIT rate is the benchmark tax rate
- Any reduced rates should be considered as Tax Expenditure



# Group Exercise

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- All companies start operating in 2016
- 5 companies are industrial park developers  
5-year holiday (0% until 2021)
- 5 companies are mining lease holders  
(taxed at 15%)
- 40 are subject to statutory CIT tax rate

Year	TaxRate
2016	25.75%
2017	25.00%
2018	25.00%
2019	25.00%
2020	24.00%
2021	24.00%
2022	24.00%



# Data

All the necessary data is provided

Year	Taxpayer ID	Special Mining Lease Holder	Industrial Park Developer	Loss prev. yr	Taxable Income (USD)	Taxable Income after loss prev. year	Loss to carry forward	Statutory CIT Rate
2016	4	0	1	-	(32,500,000)	(32,500,000)	(32,500,000)	25.75%
2017	4	0	1	(32,500,000)	8,688,474	(23,811,526)	(23,811,526)	25.00%
2018	4	0	1	(23,811,526)	4,674,824	(19,136,702)	(19,136,702)	25.00%
2019	4	0	1	(19,136,702)	6,514,302	(12,622,400)	(12,622,400)	25.00%
2020	4	0	1	(12,622,400)	8,901,000	(3,721,400)	(3,721,400)	24.00%
2021	4	0	1	(3,721,400)	9,020,500	5,299,100	-	24.00%
2022	4	0	1	-	10,786,018	10,786,018	-	24.00%
2016	5	1	0	-	11,628,365	11,628,365	-	25.75%
2017	5	1	0	-	18,680,424	18,680,424	-	25.00%
2018	5	1	0	-	4,939,251	4,939,251	-	25.00%
2019	5	1	0	-	4,615,684	4,615,684	-	25.00%
2020	5	1	0	-	8,160,723	8,160,723	-	24.00%
2021	5	1	0	-	1,274,283	1,274,283	-	24.00%
2022	5	1	0	-	(4,080,317)	(4,080,317)	(4,080,317)	24.00%



# Tasks

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## **Focus on two tax expenditures:**

1. Reduced rate (15%) for Special Mining Lease Holders.
2. 5-year holiday for Industrial Park Developers

## **Calculate**

1. Each firm's tax liability under the benchmark rate  
What would total tax liability be in each year if all firms paid the Benchmark rate?
2. Tax liability for the mining lease holders and industrial park developers, in each year
3. Revenue foregone under the two tax expenditures, in each year



# How to calculate

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## 1. Each firm's tax liability under the benchmark rate

Taxable Income after loss prev. year \* Statutory CIT Rate

*(if taxable income < 0 → tax liability = 0)*

## 2. Special Mining Lease Holder

Tax Liability: Taxable Income after loss prev. year \* reduced rate (15%)

*(if taxable income < 0 → tax liability = 0)*

Revenue Foregone: Tax liability under Benchmark Regime - Tax Liability Mining Companies

## 2. Industrial Park Developer

Tax Liability: Taxable Income after loss prev. year \* Statutory CIT Rate (only from 2021)

*(if taxable income < 0 → tax liability = 0)*

Revenue Foregone: Tax liability under Benchmark Regime - Tax Liability Mining Companies



# Solution

Year	Sum of Tax liability under Benchmark Regime
2016	85,504,438
2017	87,145,408
2018	93,224,227
2019	74,774,284
2020	88,748,222
2021	78,063,365
2022	98,883,886
<b>Total</b>	<b>606,343,831</b>

Year	Sum of Revenue Foregone Mining companies
2016	3,464,213
2017	2,834,164
2018	5,017,831
2019	4,969,204
2020	3,744,746
2021	2,743,606
2022	2,942,604
<b>Total</b>	<b>25,716,368</b>

Year	Sum of Revenue Foregone Industrial Park Developers
2016	2,332,026
2017	4,356,125
2018	2,075,475
2019	2,943,738
2020	1,337,706
2021	-
2022	-
<b>Total</b>	<b>13,045,069</b>



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# Bonus Question





# Data

Year	Taxpayer ID	Special Mining Lease Holder	Industrial Park Developer	Loss prev. yr	Taxable Income (USD)	Taxable Income after loss prev. year	Loss to carry forward	Statutory CIT Rate	Tax liability under Benchmark System	Mining Tax Rate (15.45%)
2011	999	1	0	0	(85,000,000)	(85,000,000)	(85,000,000)	25.75%		15.45%
2012	999	1	0	(85,000,000)	8,000,000	(77,000,000)	(77,000,000)	25.75%		15.45%
2013	999	1	0	(77,000,000)	8,500,000	(68,500,000)	(68,500,000)	25.75%		15.45%
2014	999	1	0	(68,500,000)	4,000,000	(64,500,000)	(64,500,000)	25.75%		15.45%
2015	999	1	0	(64,500,000)	7,500,000	(57,000,000)	(57,000,000)	25.75%		15.45%
2016	999	1	0	(57,000,000)	12,000,000	(45,000,000)	(45,000,000)	25.75%		15.45%
2017	999	1	0	(45,000,000)	12,500,000	(32,500,000)	(32,500,000)	25.00%		15.45%
2018	999	1	0	(32,500,000)	12,000,000	(20,500,000)	(20,500,000)	25.00%		15.45%
2019	999	1	0	(20,500,000)	11,000,000	(9,500,000)	(9,500,000)	25.00%		15.45%
2020	999	1	0	(9,500,000)	12,500,000	3,000,000	-	24.00%		15.45%
2021	999	1	0	-	8,500,000	8,500,000	-	24.00%		15.45%
2022	999	1	0	-	5,500,000	5,500,000	-	24.00%		15.45%



# Tasks

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1. Firms engaged in mining are not subject to the 6-year limit on losses carried forward. Create another table considering this information
2. If this was also considered as a TE, how would you calculate revenue foregone?

**Hint: First cap the loss so that it can only be carried forward for 6 years**



# Solution

## Calculation of tax liabilities

Year	Taxpayer ID	Special Mining Lease Holder	Industrial Park Developer	Loss prev. yr	Taxable Income (USD)	Taxable Income after loss prev. year	Loss to carry forward	Statutory CIT Rate	Tax liability under Benchmark System	Mining Tax Rate (15.45%)	Tax Liability under mining regime	Revenue Foregone [J-L]
2011	999	1	0	0	(85,000,000)	(85,000,000)	(85,000,000)	25.75%	-	15.45%	-	-
2012	999	1	0	(85,000,000)	8,000,000	(77,000,000)	(77,000,000)	25.75%	-	15.45%	-	-
2013	999	1	0	(77,000,000)	8,500,000	(68,500,000)	(68,500,000)	25.75%	-	15.45%	-	-
2014	999	1	0	(68,500,000)	4,000,000	(64,500,000)	(64,500,000)	25.75%	-	15.45%	-	-
2015	999	1	0	(64,500,000)	7,500,000	(57,000,000)	(57,000,000)	25.75%	-	15.45%	-	-
2016	999	1	0	(57,000,000)	12,000,000	(45,000,000)	(45,000,000)	25.75%	-	15.45%	-	-
2017	999	1	0	(45,000,000)	12,500,000	(32,500,000)	(32,500,000)	25.00%	-	15.45%	-	-
2018	999	1	0	(32,500,000)	12,000,000	(20,500,000)	(20,500,000)	25.00%	-	15.45%	-	-
2019	999	1	0	(20,500,000)	11,000,000	(9,500,000)	(9,500,000)	25.00%	-	15.45%	-	-
2020	999	1	0	(9,500,000)	12,500,000	3,000,000	-	24.00%	720,000	15.45%	463,500	256,500
2021	999	1	0	-	8,500,000	8,500,000	-	24.00%	2,040,000	15.45%	1,313,250	726,750
2022	999	1	0	-	5,500,000	5,500,000	-	24.00%	1,320,000	15.45%	849,750	470,250

- In this table, losses remain uncapped
- So, we need to create another table (A16:M28) and take care of (account for) the second TE (with losses capped at 6 years)



# Solution

**For revenue foregone from the LCF provision, two approaches:**

- (i) calculate RF vs. the benchmark rate [  $= (J23 - J9)$  ]
- (ii) calculate RF vs. the lower (applied) rate [  $= (L23 - L9)$  ]

<b>RF from the LCF provision, vs. Benchmark rate</b>	
2018	3,000,000
2019	2,750,000
2020	2,280,000
2021	-
2022	-

<b>RF from the LCF provision, vs. applied rate (15.45%)</b>	
2018	1,854,000
2019	1,699,500
2020	1,467,750
2021	-
2022	-

Not clear which is preferable / 'correct'.



# Solution

## For revenue foregone from the reduced rate, again two approaches

(iii) calculate RF vs. the benchmark rate, **with** extended LCF provision [ =(J11-L11) ]

(iv) calculate RF vs. the benchmark rate, **without** extended LCF provision [ =(J23-L23) ]

RF just from reduced rate, vs. Benchmark rate, with extended LCF:	
2018	-
2019	-
2020	256,500
2021	726,750
2022	470,250

RF from the Reduced Rate, vs. Benchmark rate + no extended LCF:	
2018	1,146,000
2019	1,050,500
2020	1,068,750
2021	726,750
2022	470,250



# Solution

**For revenue foregone for the mining companies:** You could add (i) + (iii) Or (ii) + (iv)

RF from the LCF provision, vs. Benchmark rate	
2018	3,000,000
2019	2,750,000
2020	2,280,000
2021	-
2022	-

+

RF just from reduced rate, vs. Benchmark rate, with extended LCF:	
2018	-
2019	-
2020	256,500
2021	726,750
2022	470,250

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Revenue foregone for mining companies	
<b>2018</b>	<b>3,000,000</b>
<b>2019</b>	<b>2,750,000</b>
<b>2020</b>	<b>2,536,500</b>
<b>2021</b>	<b>726,750</b>
<b>2022</b>	<b>470,250</b>

RF from the LCF provision, vs. applied rate (15.45%)	
2018	1,854,000
2019	1,699,500
2020	1,467,750
2021	-
2022	-

+

RF from the Reduced Rate, vs. Benchmark rate + no extended LCF:	
2018	1,146,000
2019	1,050,500
2020	1,068,750
2021	726,750
2022	470,250

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Revenue foregone for mining companies	
<b>2018</b>	<b>3,000,000</b>
<b>2019</b>	<b>2,750,000</b>
<b>2020</b>	<b>2,536,500</b>
<b>2021</b>	<b>726,750</b>
<b>2022</b>	<b>470,250</b>



# Solution

**For revenue foregone for the mining companies:** You could add **(i) + (iii)** Or **(ii) + (iv)**

Revenue foregone for mining companies	
2018	3,000,000
2019	2,750,000
2020	2,536,500
2021	726,750
2022	470,250

Revenue foregone for mining companies	
2018	3,000,000
2019	2,750,000
2020	2,536,500
2021	726,750
2022	470,250

Both give same 'total' revenue foregone to mining companies.

But must be consistent when reporting on the provisions in isolation.



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# Questions?





# Thank You!

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