Teach yourself how to build a Business Case for any industry including mining

1k Hands On Modelling: Cashstream #2 – Tax Deductions for Capex

northern Zambia

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Spend only a few seconds on each page

This website may contain errors so always check your own work and have it audited by a competent person.

This module contains personal opinions.

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Southern Luangwa National Park, Zambia

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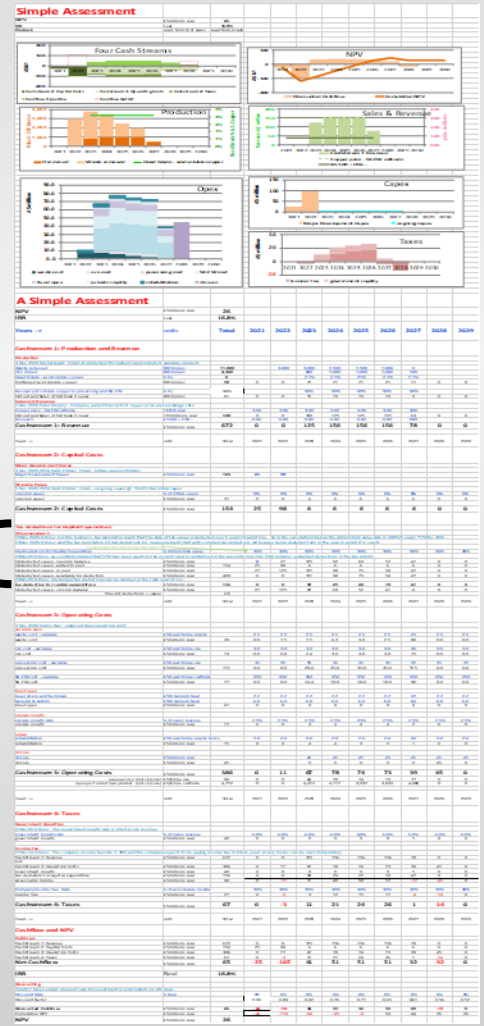
This module should be easy to understand!

You could spend the rest of your life modelling tax depreciation in hundreds of rows or adopt one of three approximation methods illustrated below …



#1: Revenue

#2: Capex

The purpose of this module is explore **Part B: Tax deductions for Capex**

#3: Opex

Level 3: Decision making

#4: Taxes

Level 2: Evaluating the business/project

Cashflow
(incl NPV)

Level 1: Hands-on economic modelling

Contents

are easy to understand!!!

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Other procedures
How much detail is needed?
Tax laws versus Accounting rules

Chipata, Zambia

Cashstream #2: Capex

As illustrated in the previous module …

Part A: Cashstream #2: Capex

Input the capital costs here

Part B: Tax deductions for capex

Are calculated here to be used later in the calculation of taxes

(Usually this is much easier than you might expect.)

Buying for dinner, northern **Zambia**.

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Calendar Year -->	Units	Total	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8
Cashstream 2: Capital Costs										
Initial Capex - cash payments										
2020 11 3 M Ramero: Report of capex estimates dated 30/10/2020. IMPORTANT: This is the cash expenditure rather than the commitments to contracts - which would be earlier.										
Prestrip	A$ million Real	40	10	30						
Mine	A$ million Real	120	50	60	10					
Mineral Processing Plant	A$ million Real	440	130	290	20					
Infrastructure & Utilities	A$ million Real	83	30	45	8					
Spares and First Fill	A$ million Real	12			12					
EPCM	A$ million Real	56	20	30	6					
Indirects & Contingency	A$ million Real	77	25	45	7					
Other	A$ million Real	0								
Initial capex	A$ million Real	828	265	500	63	0	0	0	0	0
Ongoing Capex - cash payments										
2020 11 3 M Ramero: Report of capex estimates dated 30/10/2020										
ongoing capex - general	% of initial capex		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
		373	0	0	25	25	25	25	25	25
ongoing capex - major items	A$ million Real	60						25		
ongoing capex	A$ million Real	433	0	0	25	25	25	50	25	25
Capex - Total cash payments in A$	A$ million Real	1,261	265	500	88	25	25	50	25	25
Forex: A$ = US$ - mid case	A$1.00 = US$		0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Cashstream 2: Capital Costs - Mid Case	US$ millions Real	983	207	390	69	19	19	39	19	19

Calendar Year -->	Units	Total	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8
Tax deductions for Capital Expenditure ("tax depreciation")										
Compute in Nominal terms										
2020 10 21 Peter Card: These deductions need to be computed in NOMINAL terms to incorporate the erosion of inflation, then converted back to REAL terms.										
Inflator										
2020 12 5 D Marcelo: email of the Company's forecast of inflation rate										
Inflation - Australia	% /annum		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Inflator	from start year 1		1.01	1.03	1.05	1.07	1.09	1.12	1.14	1.16
1. Prestrip										
2020 10 21 Peter Card: The prestrip is treated as an operating cost and so immediately deductible in Australia.										
Prestrip	A$ million Real	40	10	30	0	0	0	0	0	0
Prestrip	*A$ millions NOMINA*	*41*	*10*	*31*	*0*	*0*	*0*	*0*	*0*	*0*
Deductions for prestrip available	*A$ millions NOMINA*	*41*	*10*	*31*	*0*	*0*	*0*	*0*	*0*	*0*
2. Mine and Mineral Processing										
2020 10 23 T Braga - Tax Specialist: Mine and mineral processing capex is predominantly deducted over 5 years with balance mainly over 10 years. Assume an weighted average of 18% straight line and so use double this rate for a										
Mine	A$ million Real	120	50	60	10	0	0	0	0	0
Mineral Processing Plant	A$ million Real	440	130	290	20	0	0	0	0	0
Mine & Mineral Processing	A$ million Real	560	180	350	30	0	0	0	0	0
Mine & Mineral Processing	*A$ millions NOMINA*	*574*	*182*	*361*	*32*	*0*	*0*	*0*	*0*	*0*
Tax Deduction for mine & mineral processing	% diminishing valu	36.0%								
2020 10 23 T Braga: Unclaimed deductions for past capex have an opening balance of A$3 million.										
Undeducted PAST capex - opening balance	*A$ millions NOMINAL*		*3*	*185*	*545*	*369*	*236*	*151*	*97*	*62*
Mine & Mineral Processing	*A$ millions NOMINA*	*574*	*182*	*361*	*32*	*0*	*0*	*0*	*0*	*0*
Undeducted capex	*A$ millions NOMINAL*		*185*	*545*	*577*	*369*	*236*	*151*	*97*	*62*
deductions avail for mine & mineral proc - step 1	*A$ millions NOMINA*	*576*	*0*	*0*	*208*	*133*	*85*	*54*	*35*	*22*
deductions avail for mine & mineral proc - step 2	*A$ millions NOMINA*	*577*	*0*	*0*	*208*	*133*	*85*	*54*	*35*	*22*
check		OK								
3. Other Capex incl ongoing capex										
2020 10 23 T Braga - Tax Specialist: Other capex and ongoing capex is predominantly deducted over 10 years with balance mainly over 5 years. Assume an weighted average of 9% straight line and so use double this rate for a pool										
Infrastructure & Utilities	A$ million Real	83	30	45	8	0	0	0	0	0
Spares and First Fill	A$ million Real	12	0	0	12	0	0	0	0	0
EPCM	A$ million Real	56	20	30	6	0	0	0	0	0
Indirects & Contingency	A$ million Real	77	25	45	7	0	0	0	0	0
Other	A$ million Real	0	0	0	0	0	0	0	0	0
ongoing capex	A$ million Real	433	0	0	25	25	25	50	25	25
3. Other Capex incl ongoing capex	A$ million Real	661	75	120	58	25	25	50	25	25
3. Other Capex incl ongoing capex	*A$ millions NOMINA*	*757*	*76*	*124*	*61*	*27*	*27*	*56*	*28*	*29*
Tax Deduction for Capital Expenditure	% diminishing valu	18.0%								
2020 10 23 T Braga: Unclaimed deductions for past capex have an opening balance of A$13 million.										
Undeducted PAST capex - opening balance	*A$ millions NOMINAL*		*13*	*89*	*212*	*224*	*205*	*191*	*202*	*189*
3. Other Capex incl ongoing capex	*A$ millions NOMINA*	*757*	*76*	*124*	*61*	*27*	*27*	*56*	*28*	*29*
Undeducted capex	*A$ millions NOMINAL*		*89*	*212*	*273*	*251*	*233*	*246*	*230*	*218*
deductions avail for other & ongoing capex -step 1	*A$ millions NOMINA*	*602*	*0*	*0*	*49*	*45*	*42*	*44*	*41*	*39*
deductions avail for other & ongoing capex - step 2	*A$ millions NOMINA*	*770*	*0*	*0*	*49*	*45*	*42*	*44*	*41*	*39*
check		OK								
4. Total Deductions for Capex										
deductions available - diminishing value method	*A$ millions NOMINA*	*1,388*	*10*	*31*	*257*	*178*	*127*	*99*	*76*	*61*
Convert back to Real terms										
deductions for capex incl prestrip - available	A$ millions REAL	**1,196**	**10**	**30**	**244**	**166**	**116**	**89**	**67**	**53**
5. Check:										
Check: total NEW capex to be deducted	A$ million Real	1,261	265	500	88	25	25	50	25	25
check -->		**OK**								
Check: PAST capex to be deducted	A$ million Nominal	0	16							
Check: total capex to be deducted	A$ million Real	1,277	281	500	88	25	25	50	25	25
erosion of tax deductions by inflation	A$ millions REAL	81								
2020 10 21 Peter Card: So the impact on NPV of the erosion of tax deductions by inflation is this above amount multiplied by the tax rate and discounted by a number of years - should be relatively minor!										

Calendar Year -->	Units	Total	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8
Cashstream 3: Operating Costs										
2020 10 21 Peter Card: Read the website module on this activity. Focus on the key drivers. Split them into variable and fixed components. Do not get lost in elaborate detail on minor items. Use a helicopter view.										

Get ‘tax deductions for capex’ into perspective.

The reality is that:

- Tax usually is the least important driver of the four cashflows.
- When computing income tax, capex is just one of the parameters; along with revenue and opex.
- Then the leverage of capex on NPV is reduced to about 25% or 30% (or whatever is the income tax rate).

Thinking more about it:

- Both highly accurate and approximate methods of computing the tax deductions for capex should total the same amount over the life. (in nominal terms).
- This means that the difference between these two methods should only be the spread of this same total over the years.
- Thus the impact on NPV may be minor.

Your economic evaluation model will not be used to submit your company’s tax return to the government!

Zambia

Herero, northern Namibia

Income Tax is easy to grasp …

Tax laws in most countries allow the genuine costs of running a business to be deducted from the revenue when calculating income tax.
These costs usually are split into: -

- **Operating expenses** *(cost of goods sold)* = day-to-day expenses including admin, overheads, interest
- **Capital costs** = where the benefit lasts more than one year

In broad terms, most tax laws allow: -

- **operating expenses** to be deducted immediately within the year of expenditure – which helps NPV
- but **capital costs** must be deducted over some years (commonly its effective life) – which 'lowers' NPV

So in concept, the **income tax** for a year is simply: -

Revenue	*$1 000*
less:	
Cost of goods sold (operating expenses)	*-$500*
Tax deductions for previous capital costs	*-$100*
= Assessable Income	*$400*
** income tax rate*	** 25%*
*= **Income tax***	***$100***

So in concept, the **net cashflow** for that year is simply: -

Revenue –received in cash that year	*$1 000*	*(Cashstream #1)*
less:		
Operating expenses spent as cash that year	*-$500*	*(Cashstream #3)*
100% of capital costs spent as cash that year	*- $30*	*(Cashstream #2)*
income tax as paid in cash	*- $100*	*(Cashstream #4)*
*= **Net cashflow***	***$370***	

Yes, this is simplified and conceptual – For example, the *'revenue'* and *'operating expenses'* in the net cashflow are likely to be slightly out-of-step with the *revenue* and *cost of goods sold* in the tax calculation.
Yes, *income tax will be in Nominal Terms* while cashflow usually will be in Real Terms (More later!)

How are tax deductions calculated?

In any tax year, the **operating expenses** must be matched with **revenue** – the exact cost of producing the particular items sold.

Say 850 units were sold – but 50 of those items had been produced during the previous year, so 800 were sold from this year's production.

900 units were produced this year at a higher cost per unit than last year.

Raw material and intermediate stocks were run down but product stocks increased by 50 items.

The country's tax offices will require accurate allocation of costs to the items sold, including movements in feed materials, intermediate stocks, logistics and finished product stocks.

The **capital costs**, however, may have been spent over several previous years and will be employed for years to come. There may be no natural year-by-year matching of capex to revenue. This is where each country has its own legislation that specifies the way in which capex is to be deducted. (usually there is no discretion.)

Some countries have concise and logical laws for deducting capex. Other countries have illogical, long and messy laws, with exceptions, special incentives and time limits that have evolved over decades.

Canada's mining tax laws allow most upfront capex to be deducted before income tax and royalties are paid.

Australia has an awkward and overly detailed set of deductions that reflect continuous political meddling.

Zambia

Four typical methods of deducting capex

When deducting capex from revenue in the computation of income tax there are four typical methods: -

1. **Straight line depreciation**

   For example, a factory is constructed for $100 000. The country's tax laws state it is to be depreciated at 2.5% straight line. So every year $100 000 *2.5% = $2 500 can be deducted from the revenue when computing assessable income. If the factory is replaced after 30 years then $25 000 (written down value) will remain undeducted and this too can be deducted in the 30th year – with adjustments for demolition costs and salvage.

   In Excel/Google straight-line depreciation often is modelled by novice specialists as a large triangular table. This will expand the business model by hundreds and hundreds of rows if there are several different categories with different depreciation rates. Some Excel/Google 'experts' love doing this. These will be highly precise computations of low importance outputs.

   It is to be avoided → substitute one of the three methods below and focus on more important issues.

2. **Effective Life**

   For example, a packaging line is constructed for $100 000 and is forecast to last 5 years. The country's tax laws state it is to be deducted over its effective life. So every year $100 000/ 5years = $20 000 can be deducted from the revenue when computing assessable income.

   This is more logical and is more like an Accounting method. **It is simple to compute and takes up only a few rows** – even with changes in life .

3. **Production & Sales**

   For example, a processing plant cost $100 000. Over its life of 5 years it is expected to produce 50 000 units, which means it is deducted at the rate of $2 per unit. In the first year it produces 6 000 units so 6000 * $2 = $12 000 is deducted when computing that years income tax. In the second year it produces 9 000 units so $18 000 is deducted from revenue in that year. And so on.

   This is more logical and is more like an Accounting method. **It is simple to compute and takes up only a few rows.**

4. **Declining Balance** or 'Diminishing Value'

   For example, a bottling line cost $100 000. The country's tax laws state it can be depreciated at 10% straight line (to be avoided) or at double that at 20% diminishing balance (easiest method). In the first year $100 000 * 20% = $40 000 can be deducted from revenue when computing income tax for that year. In the second year the balance has reduced to $100 000 - $40 000 = $60 000 and 20% of that = $12 000 can be deducted. In the third year $100 000 - $40 000 - $12 000 = $48 000 * 20% = $9 600 can be deducted.

   This too is simple to compute and takes up only a few rows. It does require an algorithm that is more complex – see the worked example. I use this instead of straight line depreciation – after getting the company tax specialist to agree that its substitution for straight line will have minimal to immaterial impact on cashflows and NPV.

These four methods will soon be explained in a little more detail.

Three of these tax deduction methods are easy …

1. Straight Line Depreciation: Avoid, especially for concept and pre-feasibility studies, unless your company's tax specialist will not agree.

2. Effective Life: Create the following rows for each pool of like-assets:

- Compute the years remaining
- Start with the opening pool of undeducted capex from the previous year
- Add in the new capex spent on that pool for that year (or adjust if only a portion can be claimed in that same year) This is the undeducted capex.
- Divide by the years remaining to give the tax deduction for capex for that year.
- Compute the closing undeducted capex.

3. Production & Sales: Create the following rows for each pool of like-assets:

- Reference across from the Operations/Sales/Revenue worksheet the whole row of future sales and compute the total number of units to be produced & sold over the remaining life of each pool of assets.
- Start with the opening pool of undeducted capex from the previous year
- Add in the new capex on that pool for that year (or adjust if only a portion can be claimed in that same year)
- Compute the new undeducted capex for that pool
- Divide by the units to be produced over that pool's remaining life → tax deduction per unit
- Multiply the tax deduction per unit by the units to be produced that year → deductions for that year in the income tax computations.
- Compute the closing undeducted capex.

4. Diminishing Value: is best explained with an example …

,

4. Declining Balance is easy too!

i. Capex spent

ii. Row notes explaining how each asset should be depreciated for tax

iii. Estimate of the weighted average 23% rate of depreciation if all are pooled

iv. Input of inflation rate so capex in Real Terms can be converted to Nominal

v. Opening balance – capex yet to be deducted for tax (Nominal Terms)

vi. New capex into the pool (Nominal Terms)

vii. New total pool of undeducted capex

viii. Tax deductions for each year = 23% of pool (Nominal terms)

ix. Closing balance of undeducted capex (Nominal Terms)

x. Tax deductions converted from Nominal into Real for use in the model's income tax computations (which are in real terms)

xi. Value of tax deductions lost to inflation.

Years →	Units	Total	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6
Cashstream 2: Capital Costs								
2a. Capital Purchases (for plant and equipment)								
1 Aug 2020: Social Enterprise Project ABC: "Estimate of Capital Costs", page 5, rows 34 to 45								
IT Hardware	US$ 000 Real	680	200	200	100	20	20	20
office equipment	US$ 000 Real	70	15	5	5	5	5	5
communications equipment	US$ 000 Real	180	50	20	20	10	10	10
research & development equipment	US$ 000 Real	330	50	50	50	20	20	20
Cashstream 2: Capital Costs (for plant and e	US$ 000 Real	1,150	315	275	175	55	55	55
2b Tax deductions for capital purchases ("tax depreciation")								
2020 07 28 website of Khan Accounting - Income Tax: Expenditure on capital expenditure is depreciable according to designated rates as below: -								
* Building and structures 5% Straight line								
* Computers, electronic information systems, software and data handling equipment 25% Declining balance								
* Automobiles, trucks, office furniture and equipment 15% Declining balance								
* All other tangible property 20% Declining balance								
3 Aug 2020 P Carter: In this evaluation model all capital purchases will be pooled into one category to avoid excessive and unwarranted computations of a relatively minor								
Weighted deduction rate for the pool of capital items	*% diminishing*		*23%*	*23%*	*23%*	*23%*	*23%*	*23%*
Computing the erosion of tax deductions by local inflation								
5 Aug 2020 P Carter: The following computation of tax deductions for capital purchases is performed in Nominal terms to include the erosion of deductions by inflation. Be								
6 Aug 2020 P Carter: Where the capital expenditure is relatively small and/or where the rate of deduction specified by the Tax Office is rapid then this may be done in Real								
Inflation - In country			*8.0%*	*8.0%*	*8.0%*	*8.0%*	*8.0%*	*8.0%*
Inflator - In country			*1.04*	*1.12*	*1.21*	*1.31*	*1.41*	*1.53*
			Nominal terms					
undeducted capital costs - opening balance	*Nominal currency units*		*0*	*252*	*432*	*496*	*437*	*397*
capital costs - added	*Nominal currency*	*1,491*	*327*	*309*	*212*	*72*	*78*	*84*
undeducted capital costs - available for tax deductions	*Nominal currency units*		*327*	*561*	*644*	*568*	*515*	*481*
Tax deductions ('tax depreciation')	*Nominal currency*	*1,491*	*75*	*129*	*148*	*131*	*118*	*111*
undeducted capital costs - closing balance	*Nominal currency units*		*252*	*432*	*496*	*437*	*397*	*370*
Tax deductions ('tax depreciation')	US$ 000 Real	966	72	115	122	100	84	72
Value of tax deductions eroded by inflation	US$ 000 Real	-184						

Real Terms versus Nominal Terms

- Business models are best computed in **Real Terms** - everyone can relate to the data throughout the whole model because it is not distorted by inflation.
- But Tax specialists and Accountants must compute tax in **Nominal Terms**
- Income tax can be computed accurately in Real Terms in a business model – though some people do not understand how.
- It simply requires the **tax deductions for capex** ('tax depreciation') to be computed in Nominal Terms and then converted to Real Terms. This will take into account the erosion of the deductions by inflation.
    i. Firstly escalate the capex into Nominal Terms using inflation factors
    ii. Compute the tax deductions in Nominal Terms
    iii. Convert the tax deduction into Real Terms using the inflation factors
    iv. To check compute the value of tax deductions eroded by inflation because the tax deductions were computed in Nominal Terms

Once you understand the logic, this should be easy to complete.

Years →	Units	Total	Yr1	Yr2
Cashstream 2: Capital Costs				
2a. Capital Purchases (for plant and equipment)				
1 Aug 2020: Social Enterprise Project ABC: "Estimate of Capital Costs", page 5, rows 34 to 45				
IT Hardware	US$ 000 Real	680	200	200
office equipment	US$ 000 Real	70	15	5
communications equipment	US$ 000 Real	180	50	20
research & development equipment	US$ 000 Real	330	50	50
Cashstream 2: Capital Costs (for plant and e	US$ 000 Real	**1,150**	**315**	**275**
2b Tax deductions for capital purchases ("tax depreciation")				
2020 07 28 website of Khan Accounting - Income Tax: Expenditure on capital expenditure is depreciable according to design				
* Building and structures 5% Straight line				
* Computers, electronic information systems, software and data handling equipment 25% Declining balance				
* Automobiles, trucks, office furniture and equipment 15% Declining balance				
* All other tangible property 20% Declining balance				
3 Aug 2020 P Carter: In this evaluation model all capital purchases will be pooled into one category to avoid excessive and				
Weighted deduction rate for the pool of capital items	*% diminishing*		*23%*	*23%*
Computing the erosion of tax deductions by local inflation				
5 Aug 2020 P Carter: The following computation of tax deductions for capital purchases is performed in Nominal terms to i				
6 Aug 2020 P Carter: Where the capital expenditure is relatively small and/or where the rate of deduction specified by the				
Inflation - In country			*8.0%*	*8.0%*
Inflator - In country			*1.04*	*1.12*
			Nominal terms	
undeducted capital costs - opening balance	*Nominal currency units*		*0*	*252*
capital costs - added	*Nominal currency*	*1,491*	*327*	*309*
undeducted capital costs - available for tax deductions	*Nominal currency units*		*327*	*561*
Tax deductions ('tax depreciation')	*Nominal currency*	*1,491*	*75*	*129*
undeducted capital costs - closing balance	*Nominal currency units*		*252*	*432*
Tax deductions ('tax depreciation')	US$ 000 Real	966	72	115
Value of tax deductions eroded by inflation	US$ 000 Real	-184		

Other procedures: -

i. Pools

As an example: A chemical business has a wide array of plant and equipment, each with its own depreciation rate under the country's tax laws. The tax office may allow the business to pool like plant and equipment – to add in new purchases to the opening undeducted pool, depreciate as a combined pool and leave an undeducted balance to start the next year.
In an early stage business model this may be an efficient procedure with one or two pools – whether or not it is the actual tax procedure – to avoid hundreds of rows of highly accurate but less important computations.

ii. Part Years

For example, a packaging line is constructed for $100 000 and is forecast to last 5 years. It is commissioned half way through a year. Some country's tax laws might state that only half the deduction can be taken in that year = $100 000/5 *1/2 = $10 000. Some countries may allow a full deduction and others may allow no deduction for that year.

iii. Losses

For example, a business can deduct $10 000 from revenue for capital investments but its revenue for that year is only $3 000. In most countries the $7 000 negative assessable income (tax loss) can be carried forward as the starting point for the following year.

How much detail is needed?

You could spend the rest of your life doing detailed computations in your evaluation model to exactly reproduce the income tax deductions for capex.

> Have you come across a business model where tax depreciation is computed in hundreds of rows with huge triangles of numbers. The evaluation specialist probably was very proud of the precision. Elsewhere in the model some of the parameters that really determine the cashflows such as sales, market penetration, prices, exchange rates, operating costs … etc are in a few rows. Effort should have been spent on the key parameters. The tax depreciation should have been modelled, with sufficient accuracy, in just a few rows.

At the other extreme, you might be able to use one single high level, much simplified computation to get a fully appropriate 'working' tax deductions in your evaluation model.

> Frequently the major difference will be a slight shuffling of the same tax deductions across the years. The quantity will be the same and only the exact timings a bit different.

So you will need to match the accuracy of the tax deductions for capex to the level of your evaluation task.

This is where you need to get your tax expert on side with your method.

Tax laws versus Accounting rules…

In many countries there are differences between the tax and the accounting methods of computing deductions for capex.
Some people call these **'tax depreciation & amortisation**' and **'accounting depreciation & amortisation'.**

The **'accounting depreciation & amortisation'** used by the Accountants is likely to be more logical. Typically it matches the production and sales, or matches the effective life of the asset, or matches the units produced and sold.

The **'tax depreciation & amortisation'** used to prepare the income tax return can range from logical to highly political and from simple to very complex. Countries can legislate whatever they want!

- A few countries adopt the accounting procedure.
- Many countries use the effective years of life of the asset
- Other countries have a detailed list that stipulates a specific number of years or rate of depreciation for each type of asset. Any balance left when the asset is scrapped is claimed in the final year. This can be straight line depreciation or diminishing value depreciation. When a country wants to encourage investment it might weight tax deductions earlier.

Small expenditures: Some countries allow a company to treat any capital purchase below a certain cost threshold to be claimed in the year of purchase even though its life is longer.

Written Down Value: If an item costs $1000 and is deducted over 4 years then after one year $250 will be deducted from revenue to compute assessable income. The remaining $750 is a book entry called its written down value.

Deferred Tax: If the tax laws and the accounting rules are not identical then the deductions for an asset will be out of phase - until its final year when they will meet. Over the years, whilst they are running out of step, the difference will be recorded in the Company's Accounts as 'deferred tax'.

- A classical example is mine pre-stripping in Australia where the tax law treats it (correctly) as an operating expense but the accounting procedure is to (correctly) allocate it against the units of sales over the whole life of that orebody. The running difference is recorded in the accounting balance sheet as 'deferred stripping'. This has no relevance in the business model.

Real Terms versus Nominal Terms: Most importantly *both accounting and tax use Nominal Terms (the actual dollars seen) – italics font.* But for business modelling it is wise to use Real Terms (inflation removed) – vertical font. For concept studies this difference probably is not important but when greater accuracy is needed in later studies the tax deductions will need to be computed in *Nominal Terms* and converted to Real Terms – as explained above.

END