

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

**2c Step 3: Compute the basket of powerful metrics  
to evaluate a business/project**



**Spend only a few seconds/minutes on each page**

This website contains opinions.

It may have errors so always check your own work and have it audited by a competent person



# Inside Level 2 there usually are five steps ...

Level 3: Decision making

## Level 2: Evaluating the business/project

Level 1: Hands-on business modelling



In this module we will get an overview of Step 3 →

- Step 1: Decide which business entity is to be evaluated
  - Step 2: Create the hands-on model
  - **Step 3: Compute the basket of powerful economic measures:**  
NPV, IRR, Payback, four cash streams, cash break even, key drivers, dollar trees, uncertainty, risk, optionality
  - Step 4: Assess alternatives, flexibility, options, risks, the business, the industry
- Step 5: Interact so the decision makers “have their eyes wide open”

## Step 3: Compute the basket of powerful economic measures:

### For a preliminary or minor evaluation

you might generate a basket of metrics something like this ...

	<b>Base Case</b>
Net Present Value 'NPV'	x
Internal Rate of return 'IRR'	x
Payback	x
Life	x
Cash Breakeven	x
Key Driver #1	x
Key Driver #2	x
Key Driver #3	x
Closure /Disposal	x

# Step 3: Compute the basket of powerful economic measures:

## For a major evaluation

you might generate a basket of metrics and assessments perhaps something like this ...

	Minimum Scenario	Unfavourable Scenario	Mid Scenario (Base Case)	Favourable Scenario	Maximum Scenario
NPV ← multiple types	x	x	<b>x</b>	x	x
IRR	x	x	<b>x</b>	x	x
Payback	x	x	<b>x</b>	x	x
Life	x	x	<b>x</b>	x	x
Cash Breakeven	x	x	<b>x</b>	x	x
Key Driver #1	x	x	<b>x</b>	x	x
Key Driver #2	x	x	<b>x</b>	x	x
Key Driver #3	x	x	<b>x</b>	x	x
Closure /Disposal	x	x	<b>x</b>	x	x
Social & Community	x	x	<b>x</b>	x	x
Environmental	x	x	<b>x</b>	x	x
Governance	x	x	<b>x</b>	x	x

**Educate those around you** that every result is nothing more than a collation of experts opinions!!!

	Minimum Scenario	Unfavourable Scenario	Mid Scenario (Base Case)	Favourable Scenario	Maximum Scenario
NPV← multiple types	X	X	<b>X</b>	X	X
IRR	X	X	<b>X</b>	X	X
Payback	X	X	<b>X</b>	X	X
Life					
Cash Breakeven					
Key Driver #1					
Key Driver #2					
Key Driver #3					
Closure /Disposal					
Social & Community					
Environmental	X	X	<b>X</b>	X	X
Governance	X	X	<b>X</b>	X	X

Don't get fooled about the nature of these metrics!

**Every result is subjective** – not one is an absolute fact!  
 Every result uses experts' best estimates and opinions  
 Every result is likely to be different if done some time later  
 Every result is likely to be different if from different experts

None of that diminishes the wonderful power of a set of metrics like this.

*It is our job to get everyone's 'eyes wide open' when making decisions*

## Create scenarios ...

	Poor market scenario	Poor market & low capex	Mid Scenario (Base Case)	Mid market & new product mix	Strong market
NPV← multiple types	x	x	x	x	x
IRR	x	x	x	x	x
Payback	x	x	x	x	x
Life					
Cash Breakeven					
Key Driver #1					
Key Driver #2					
Key Driver #3	x	x	x	x	x
Closure /Disposal	x	x	x	x	x
Social & Community	x	x	x	x	x
Environmental	x	x	x	x	x
Governance	x	x	x	x	x

**Scenarios** can be derived from properly thought-out, integrated combinations of: -

- forecasts of poor, mid and strong market scenarios,
- creations of alternative product mixes and production plans and
- designs of alternative capex/opex configurations.
- lateral thinking

Hopefully you will play a leading role in generating these scenarios.

	<b>Three metrics have become pre-eminent in economic evaluation: -</b>				
<b>NPV</b>	<p><b>NPV</b> is so powerful that it has become exalted. It is a wonderful invention (I think it was first commonly used about 40 to 50 years ago.) Some businesses and people do become addicted to NPV and believe it is the ‘one true and absolute’ measure. The ‘holy grail’. NPV tells you a lot about the <b><u>quantity</u></b> of an investment, but as is stressed below it is a subjective result with some shortcomings.</p> <p><b>IRR</b> tells you a lot about the <b><u>quality</u></b> of an investment. It is the second most popular metric – again for very good reason.</p> <p><b>Payback</b> tells you a lot about the <b><u>speed</u></b>. It is employed by some battle-hardened operators and managers as a ruthless but sensible metric – and for good reason.</p> <p><i>I love all three but recognise that each has its merits and its short-comings.</i></p> <p style="text-align: right;"><b><i>These three are quite easy to understand ...</i></b></p>				
<b>IRR</b>					
<b>Payback</b>					
Life					
Cash Breakev					
Key Driver #1					
Key Driver #2					
Key Driver #3					
Closure /Disp					
Social & Com					
Environment					
Governance	x	x	x	x	x



# But from the beginning, remember that our role is much, much more than pumping out NPVs, IRRs & Payback!

Each business/project/opportunity should be assessed by a much wider basket of economic measures; PLUS a complete understanding of the business, its competitors and the industry.

You must work with your colleagues to define ...

- ❖ Its **ability to flex and adapt** to a wide range of business and operating conditions
- ❖ Its uncertainties, risks, rewards, optionality
- ❖ Its strengths and weaknesses
- ❖ Its fit inside your company
- ❖ Its direct, indirect and coming competitors

*and most importantly*

- ❖ the future for that industry

*Each person can then use experience and wisdom to form their own balanced judgement – much more than looking at numbers*

*I have performed evaluations on several major projects for senior executives who were motivated by getting their pet idea approved or by a bonus for completing a transaction.*



Remember for any assessment: -

***“If it looks too good to be true, it probably is too good to be true!”***




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In the next module we will work through NPV IRR Payback →

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End of Module