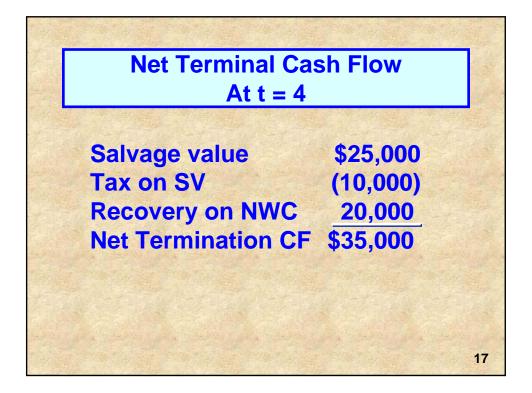
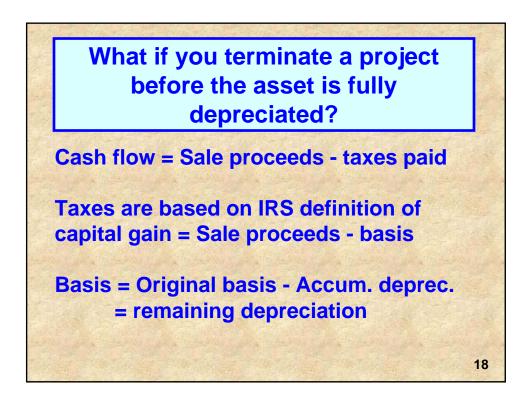
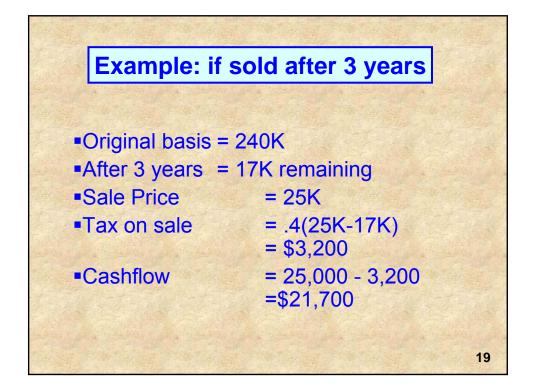


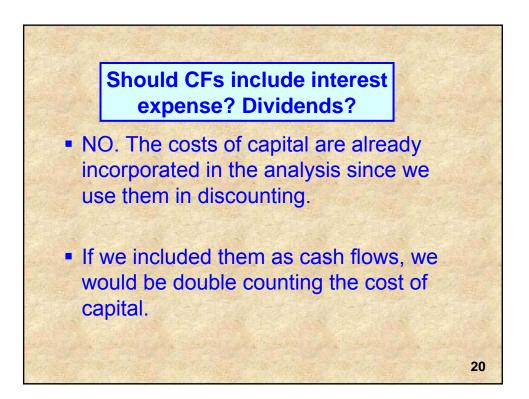
	What is the annual depreciation?					
Yea	Rate	x	Basis	Depreciation		
1	0.33		\$240	\$ 79		
2	0.45		240	108		
3	0.15		240	36		
4	0.07		240	17		
	1.00		the state	\$240		
Due	to half	-yea	ar convent	ion, a 3-year		
asse	et is de	pred	ciated ove	r 4 years.		

	1	2	3	4
Sales	\$250	\$250	\$250	\$250
Cash costs	125	125	125	125
Depreciation	79	108	36	17
EBT	\$ 46	\$ 17	\$ 89	\$108
Taxes (40%)	18	7	36	43
Net Income	28	10	53	65
Add: Depreciation	79	108	36	17
Operating Cash flow	\$107	\$118	\$ 89	\$ 82









Suppose \$100,000 had been spent last year to improve the production line site. Should this cost be included in the analysis?

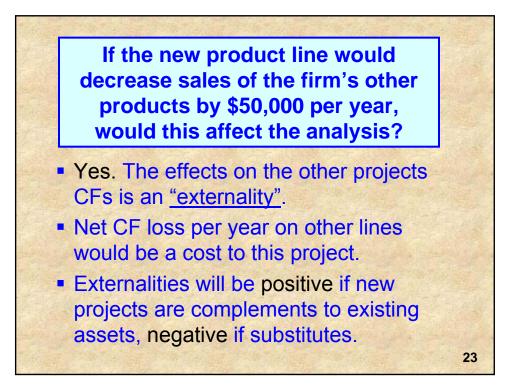
 NO. This is a <u>sunk cost</u>. Focus on incremental investment and cash flows.

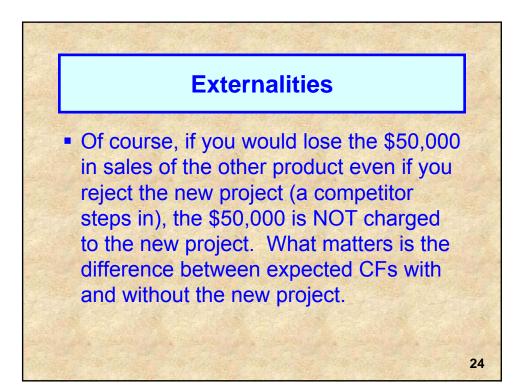
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Suppose the plant space could be leased out for \$25,000 a year. Would this affect the analysis?

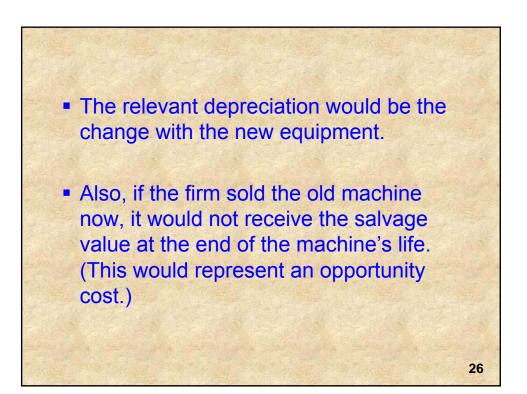
 Yes. Accepting the project means we will not receive the \$25,000. This is an <u>opportunity cost</u> and it should be charged to the project.

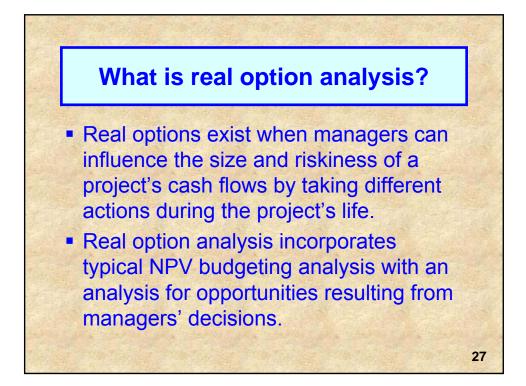


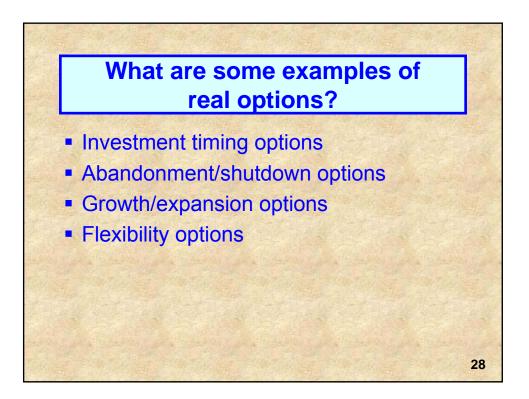


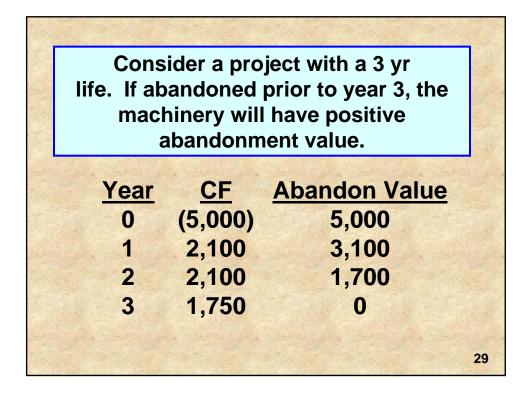
If this were a replacement rather than a new project, would the analysis change?

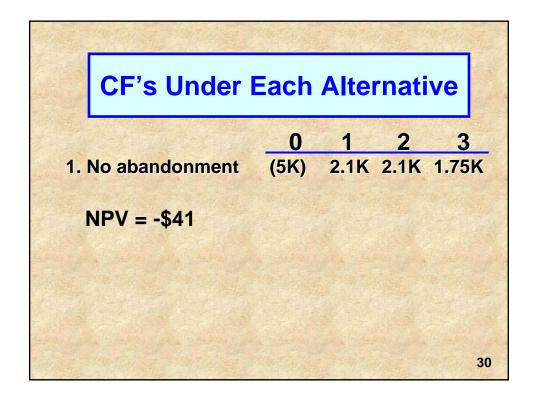
Yes. The old equipment would be sold and the incremental CFs would be the changes from the old to the new situation.

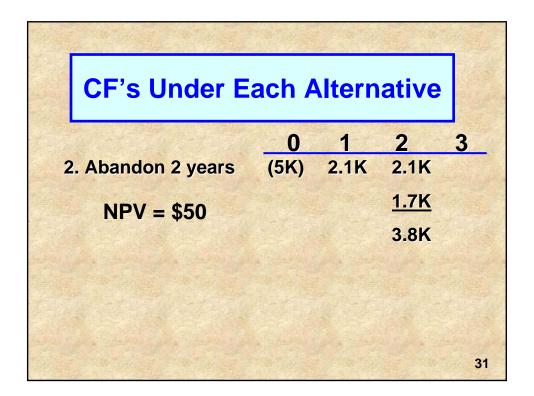


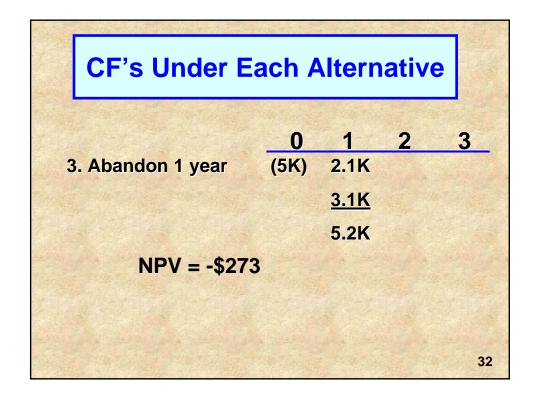


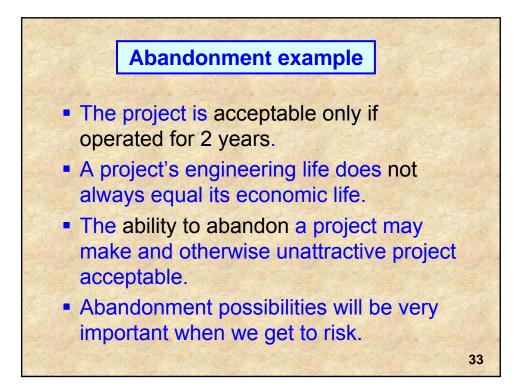


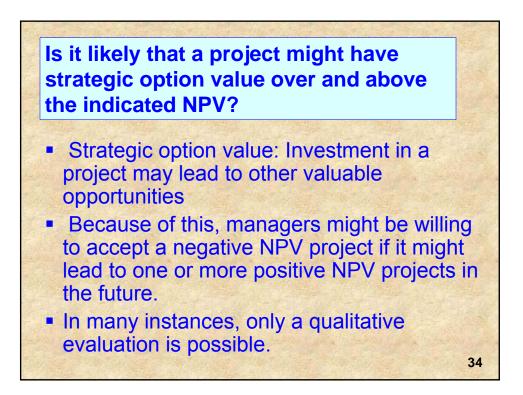


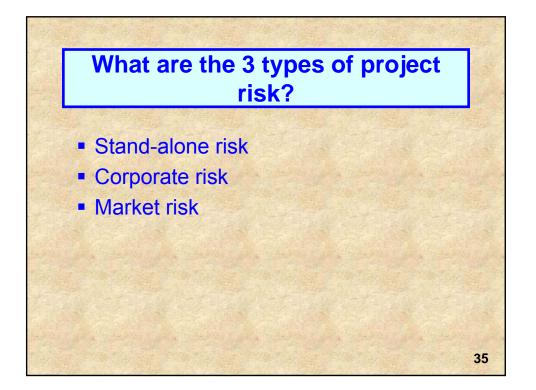


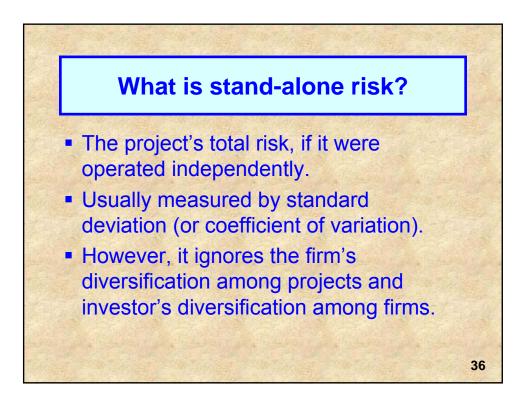


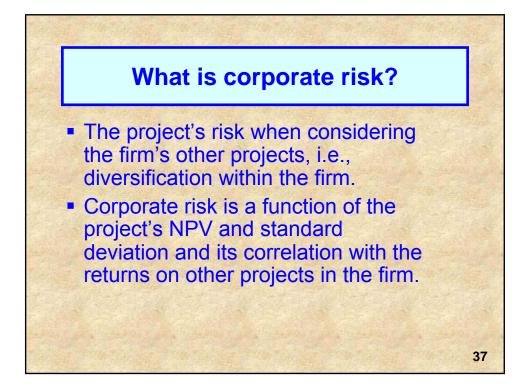


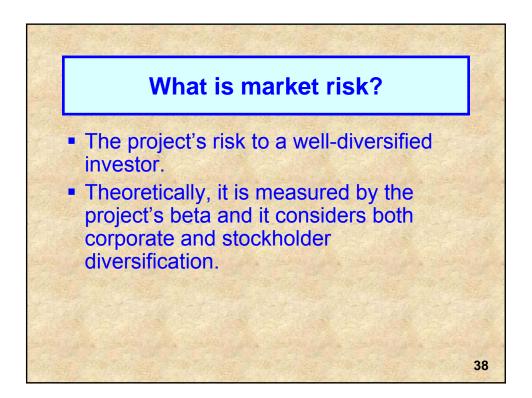




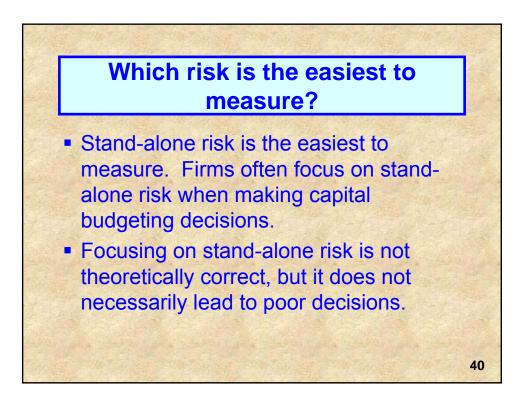


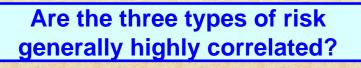




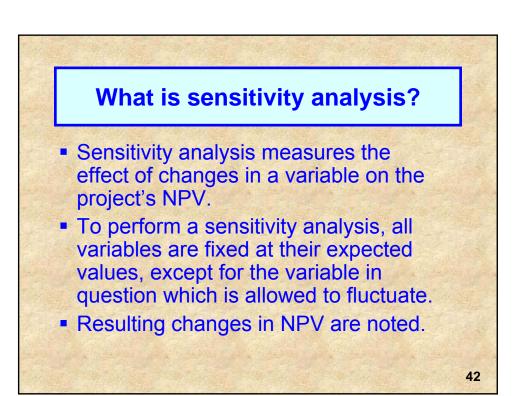


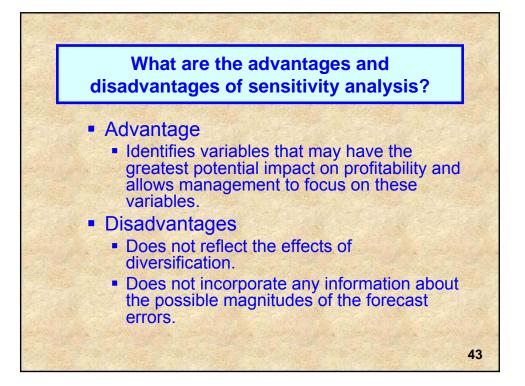


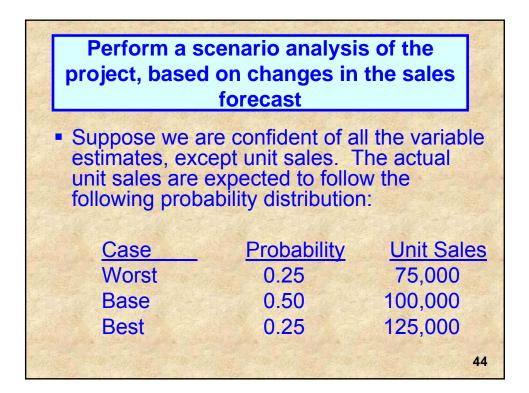


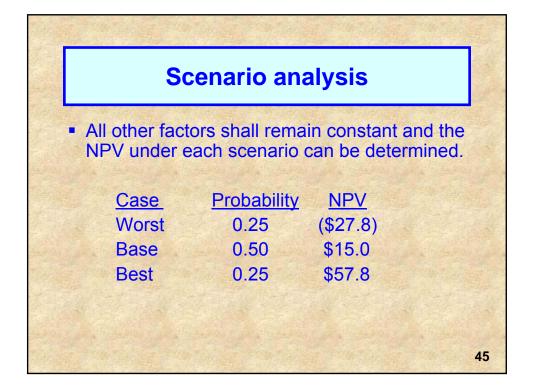


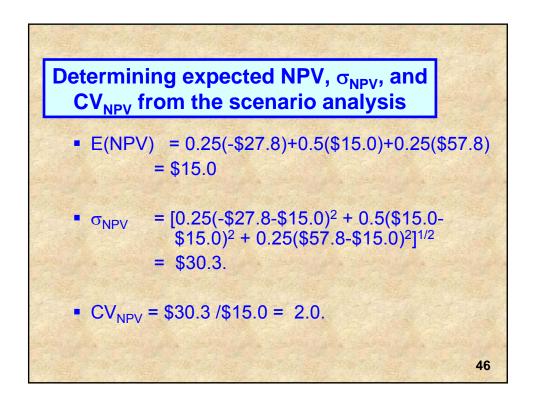
- Yes, since most projects the firm undertakes are in its core business, stand-alone risk is likely to be highly correlated with its corporate risk.
- In addition, corporate risk is likely to be highly correlated with its market risk.

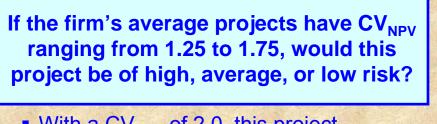




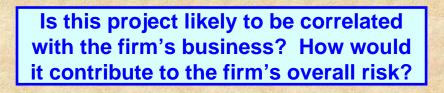








- With a CV_{NPV} of 2.0, this project would be classified as a high-risk project.
- Perhaps, some sort of risk correction is required for proper analysis.



- We would expect a positive correlation with the firm's aggregate cash flows.
- As long as correlation is not perfectly positive (i.e., ρ ≠ 1), we would expect it to contribute to the lowering of the firm's total risk.

If the project had a high correlation with the economy, how would corporate and market risk be affected?

 The project's corporate risk would not be directly affected. However, when combined with the project's high stand-alone risk, correlation with the economy would suggest that market risk (beta) is high.

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If the firm uses a +/- 3% risk adjustment for the cost of capital, should the project be accepted? Reevaluating this project at a 13% cost of capital (due to high stand-alone risk), the NPV of the project is -\$2.2.

 If, however, it were a low-risk project, we would use a 7% cost of capital and the project NPV is \$34.1.

