HEC Paris	<b>Financial Economics – Fall 2018</b>	Quiz 2a
LAST NAME	FIRST NAME	
a) The IRR criterion		
	<ul> <li>should be used only when comparing project</li> <li>can lead to accepting projects that would be</li> </ul>	s of different scales <b>be rejected using the</b>

- NPV rule
- □ is wrong because it puts too much weight on recent cash flows
- □ is wrong because it ignores discounting

b) Four projects A, B, C and D require the same investment at date 0 and have the same opportunity cost of capital. Their cash flows from dates 1 to 3 are given in the table below. Which project has the highest Net Present Value (NPV)?

- Project A
- Project B
- Project C
- Project D
- □ They all have the same NPV

$CF_1$	CF <sub>2</sub>	CF <sub>3</sub>
80	80	80
90	70	80
90	80	70
90	75	75
	<b>CF</b> <sub>1</sub> 80 90 90 90	$\begin{array}{ccc} \mathbf{CF_1} & \mathbf{CF_2} \\ 80 & 80 \\ 90 & 70 \\ 90 & 80 \\ 90 & 75 \end{array}$

### The following applies to questions c, d, and e below:

You are considering a project that lasts for one year. It requires an investment of 100 at date 0, which is fully depreciated at date 1. The project generates 250 in sales and 120 in costs (excluding depreciation) at date 1. The tax rate is 50%. The discount rate for the project is 10%.

c) What is the cash flow from the project at date 1?

-130
-15
15
30
115

d)	What	is	the	NP	V	of	the	pro	ject?
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-22.73		
-4.17		
4.55		
14.25		
14.45		

e) Now assume (for this question only) that your suppliers allow you to pay them with a one-year delay, that is, at date 2. How does the NPV of the project change compared to the previous question?

	The	NPV	goes	up
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- □ The NPV goes down
- □ The NPV is unchanged
- □ We cannot tell

HEC Paris	<b>Financial Economics – Fall 2018</b>	Quiz 2b
LAST NAME	FIRST NAME	
a) The IRR criterion	<ul> <li>should be used only when comparing project</li> <li>can lead to investment decisions that are t the NPV criterion</li> <li>is wrong because it puts too much weight on</li> </ul>	s of similar scales <b>he same as when using</b> recent cash flows

□ is wrong because it ignores discounting

b) Four projects A, B, C and D require the same investment at date 0 and have the same opportunity cost of capital. Their cash flows from dates 1 to 3 are given in the table below. Which project has the lowest Net Present Value (NPV)?

Project A
Project B

- □ Project C
- □ Project D
- □ They all have the same NPV

	$\mathbf{CF}_{1}$	$\mathbf{CF}_2$	CF <sub>3</sub>
А	80	90	80
В	100	70	80
С	90	80	80
D	95	75	80

### The following applies to questions c, d, and e below:

You are considering a project that lasts for one year. It requires an investment of 100 at date 0, which is fully depreciated at date 1. The project generates 250 in sales and 120 in costs (excluding depreciation) at date 1. The tax rate is 50%. The discount rate for the project is 20%.

c) What is the cash flow from the project at date 1?

-130
-15
15
30
115

d)	What	is	the	NPV	of the	proje	ct?
----	------	----	-----	-----	--------	-------	-----

-22.73	
-4.17	
4.55	
14.25	
14.45	

e) Now assume (for this question only) that you allow your clients to pay you with a one-year delay, that is, at date 2. How does the NPV of the project change compared to the previous question?

- □ The NPV goes up
- **D** The NPV goes down
- **D** The NPV is unchanged
- □ We cannot tell

HEC Paris	<b>Financial Economics – Fall 2018</b>	Quiz 2c
LAST NAME	FIRST NAME	
a) The payback period criterion	<ul> <li>should be used only when comparing projects</li> <li>always leads to investment decisions that are the NPV criterion</li> <li>should not be used</li> <li>should be used only for projects with short how</li> </ul>	s of similar scales the same as when using prizons

b) Four projects A, B, C and D require the same investment at date 0 and have the same opportunity cost of capital. Their cash flows from dates 1 to 3 are given in the table below. Which project has the highest Net Present Value (NPV)?

	CF <sub>1</sub>	CF <sub>2</sub>	CF <sub>3</sub>
А	80	80	80
В	90	70	80
С	90	80	70
D	90	75	75

# Project AProject B

- **D** Project C
- Project D
- □ They all have the same NPV

#### The following applies to questions c, d, and e below:

You are considering a project that lasts for one year. It requires an investment of 500 at date 0, which is fully depreciated at date 1. The project generates 2500 in sales and 1500 in costs (excluding depreciation) at date 1. The tax rate is 40%. The discount rate for the project is 20%.

c) What is the cash flow from the project at date 1?

d) What is the NPV of the project?

300
500
700
800
1000

-22.73		
22.73		
115.38		
166.67		
233.33		

e) Now assume (for this question only) that your suppliers allow you to pay them with a one-year delay, that is, at date 2. How does the NPV of the project change compared to the previous question?

	The	NPV	goes	up
--	-----	-----	------	----

- □ The NPV goes down
- **□** The NPV is unchanged
- □ We cannot tell

HEC Paris	<b>Financial Economics – Fall 2018</b>	Quiz 2d	
LAST NAME	FIRST NAME		
a) The payback period criterion	<ul> <li>should be used only when comparing projects of a can lead to reject projects that would be accept criterion</li> </ul>	different scales ted using the NPV	

- □ can always be used as an alternative to the NPV criterion
- □ should be used only to choose between two mutually exclusive projects

b) Four projects A, B, C and D require the same investment at date 0 and have the same opportunity cost of capital. Their cash flows from dates 1 to 3 are given in the table below. Which project has the lowest Net Present Value (NPV)?

	CF <sub>1</sub>	CF <sub>2</sub>	CF <sub>3</sub>
А	80	90	80
В	100	70	80
С	90	80	80
D	95	75	80

# **Project A**Project B

- $\square$  Project C
- Project CProject D
- □ They all have the same NPV

## The following applies to questions c, d, and e below:

You are considering a project that lasts for one year. It requires an investment of 500 at date 0, which is fully depreciated at date 1. The project generates 2500 in sales and 1500 in costs (excluding depreciation) at date 1. The tax rate is 40%. The discount rate for the project is 30%.

c) What is the cash flow from the project at date 1?

d) What is the NPV of the project?

300	
500	
700	
800	
1000	

-22.73		
22.73		
115.38		
166.67		
233.33		

e) Now assume (for this question only) that you allow your clients to pay you with a one-year delay, that is, at date 2. How does the NPV of the project change compared to the previous question?

- □ The NPV goes up
- **The NPV goes down**
- □ The NPV is unchanged
- $\Box$  We cannot tell