



# Managerial Finance



# Chapter IX Problem solving

The background of the slide features a close-up, slightly blurred image of several US dollar bills. The focus is on the texture and details of the paper, including the 'FEDERAL RESERVE NOTE' and 'ONE HUNDRED DOLLARS' text, and the intricate patterns of the currency. The lighting is soft, highlighting the embossed features of the bills.

## Problem 9-1

- 40% debt & 60% equity
- Bonds yield is 9% & tax is 40%
- WACC is 9.96%
- What is the cost of equity capital?

# Answer

$$WACC = w_d r_d (1 - T) + w_{ps} r_{ps} + w_{ce} r_s$$

↑  
9.96%

↑  
40%

↑  
9%

↑  
40%


↑  
0%

↑  
60%

↑  
??????

$$WACC = w_d r_d (1 - T) + w_{ps} r_{ps} + w_{ce} r_s$$

$$9.96\% = (0.4)(9\%)(1 - 0.4) + (0.6)r_s$$

$$r_s = 13\%$$


The background of the slide is a close-up, slightly blurred image of several US dollar bills. The focus is on the texture and details of the currency, including the 'FEDERAL RESERVE NOTE' and 'UNITED STATES OF AMERICA' text, and the large number '50' on a bill. The lighting is soft, creating a professional and financial atmosphere.

## Problem 9-2

- Price is \$50
- Dividend is \$3.8
- Flotation is 5%
- What is the cost of preferred stock  $r_{ps}$ ?

Answer

$$r_{ps} = \frac{D_{\$3.8}}{P_{\$50} (1 - F_{5\%})}$$

$$r_{ps} = 8\%$$

The background of the slide is a close-up, slightly blurred image of several US dollar bills. The bills are stacked and fanned out, showing various denominations and the intricate patterns of the currency. The colors are muted, with a focus on the green and brown tones of the paper.

## Problem 9-3

- Price is \$30
- Dividend is \$3
- Growth is 5%
- What is the cost of common equity?

Answer

$$r_s = \frac{D_1^{\$3}}{P_0^{\$30}} + g^{5\%}$$

$$r_s = 15\%$$