

Chapter 1

Investments: background and issues

PROBLEM SETS

SOLUTIONS

Basic

1. Equity is a lower priority claim and represents an ownership share in a corporation, whereas debt has a higher priority claim but does not have an ownership interest. Debt also pays a specified cash flow over a specific period and the claim will eventually expire. Equity has an indefinite life.
2. Asset allocation is the allocation of an investment portfolio across broad asset classes. Security selection is the choice of specific securities within each asset class.
3. Agency problems are conflicts of interest between managers and shareholders. They are addressed through the corporate governance process via audits, compensation structures and board elections.
4. Real assets are assets used to produce goods and services. Financial assets are claims on real assets or the income generated by them.
5. Investment bankers are firms specialising in the sale of new securities to the public, typically by underwriting the issue. Commercial banking processes the financial transactions of businesses such as cheques, wire transfers and savings account management.

Intermediate

6.
 - a. The factory is a real asset that is created. The loan is a financial asset that is created by the transaction.
 - b. When the loan is repaid, the financial asset is destroyed but the real asset continues to exist.
 - c. The cash is a financial asset that is traded in exchange for a real asset, inventory.
7.
 - a. The bank loan is a financial liability for Quickkalk. Quickkalk's IOU is the bank's financial asset. The cash Quickkalk receives is a financial asset. The new financial asset created is Quickkalk's promissory note held by the bank.
 - b. The cash paid by Quickkalk is the transfer of a financial asset to the software developer. In return, Quickkalk gets a real asset, the completed software. No financial assets are created or destroyed. Cash is simply transferred from one firm to another.

- c. Quickkalk sells the software, which is a real asset, to Microsoft. In exchange Quickkalk receives a financial asset, 5000 shares of Microsoft stock. If Microsoft issues new shares in order to pay Quickkalk, this would constitute the creation of new financial asset.
 - d. In selling 5000 shares of stock for \$120 000, Quickkalk is exchanging one financial asset for another. In paying off the IOU with \$50 000 Quickkalk is exchanging financial assets. The loan is 'destroyed' in the transaction, since it is retired when paid.
8. a. A fixed salary means compensation is (at least in the short run) independent of the firm's success. This salary structure does not tie the manager's immediate compensation to the success of the firm. The manager might, however, view this as the safest compensation structure with the most value.
- b. A salary paid in the form of shares in the firm means the manager earns the most when shareholder wealth is maximised. When the shares must be held for five years, the manager has less of an incentive to manipulate the share price. This structure is most likely to align the interests of managers with the interests of the shareholders. If share compensation is used too much, the manager might view it as overly risky since the manager's career is already linked to the firm. This undiversified exposure would be exacerbated with a large share position in the firm.
- c. When executive salaries are linked to firm profits, the firm creates incentives for managers to contribute to the firm's success. The success of the firm is linked to the compensation of the manager. This may lead to earnings manipulation, but that is what audits and external analysts will look out for.
9. Investment managers pool and manage money for individual investors. This provides small investors with access to capital markets that would be out of their reach ordinarily. Investment banks sell securities to the public, in effect providing a link between large corporations and small investors.