Chapter 6

Governance core for entrepreneurs: Finance and Accounting

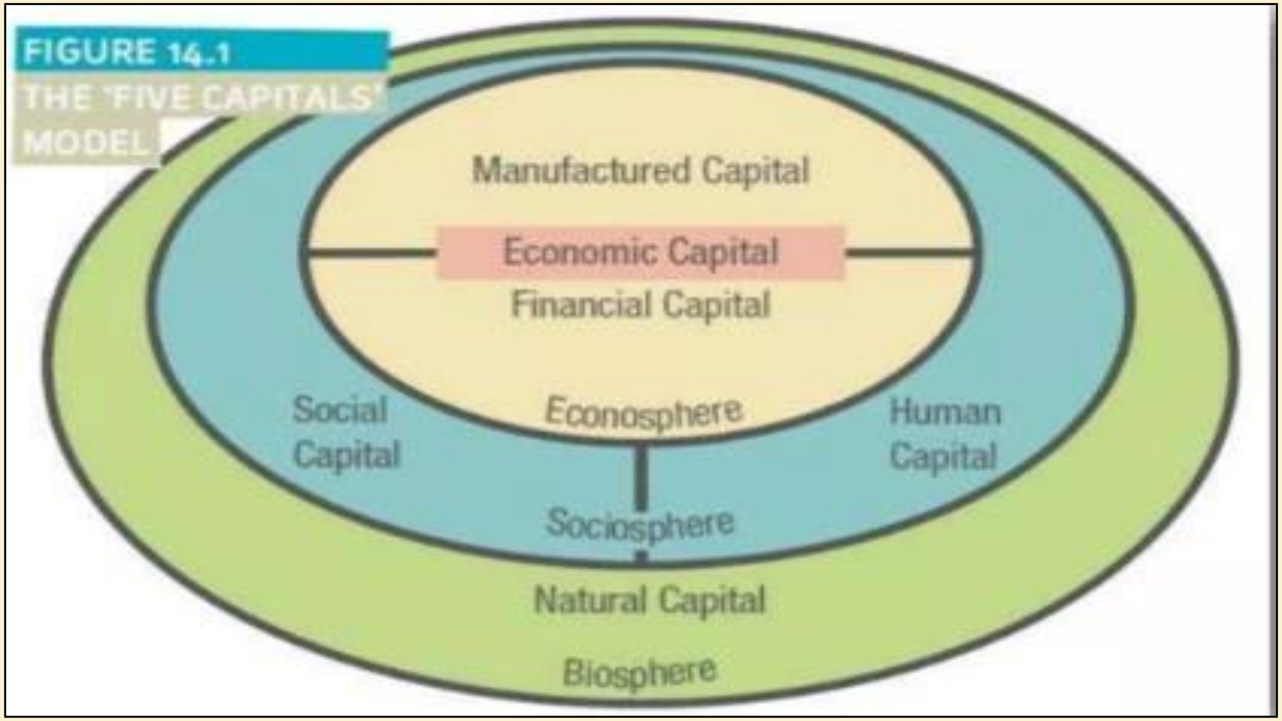
Learning objectives

- Sources of capital for entrepreneurial ventures.
- Financial preparation for entrepreneurial ventures.
- Assessment of entrepreneurial ventures.

1. Sources of capital for entrepreneurial ventures

Forms of entrepreneurial capital

- There are five types of capital from which we deliver the goods and services we need to improve the quality of our lives, such as financial, manufactured capital, human, social and nature.



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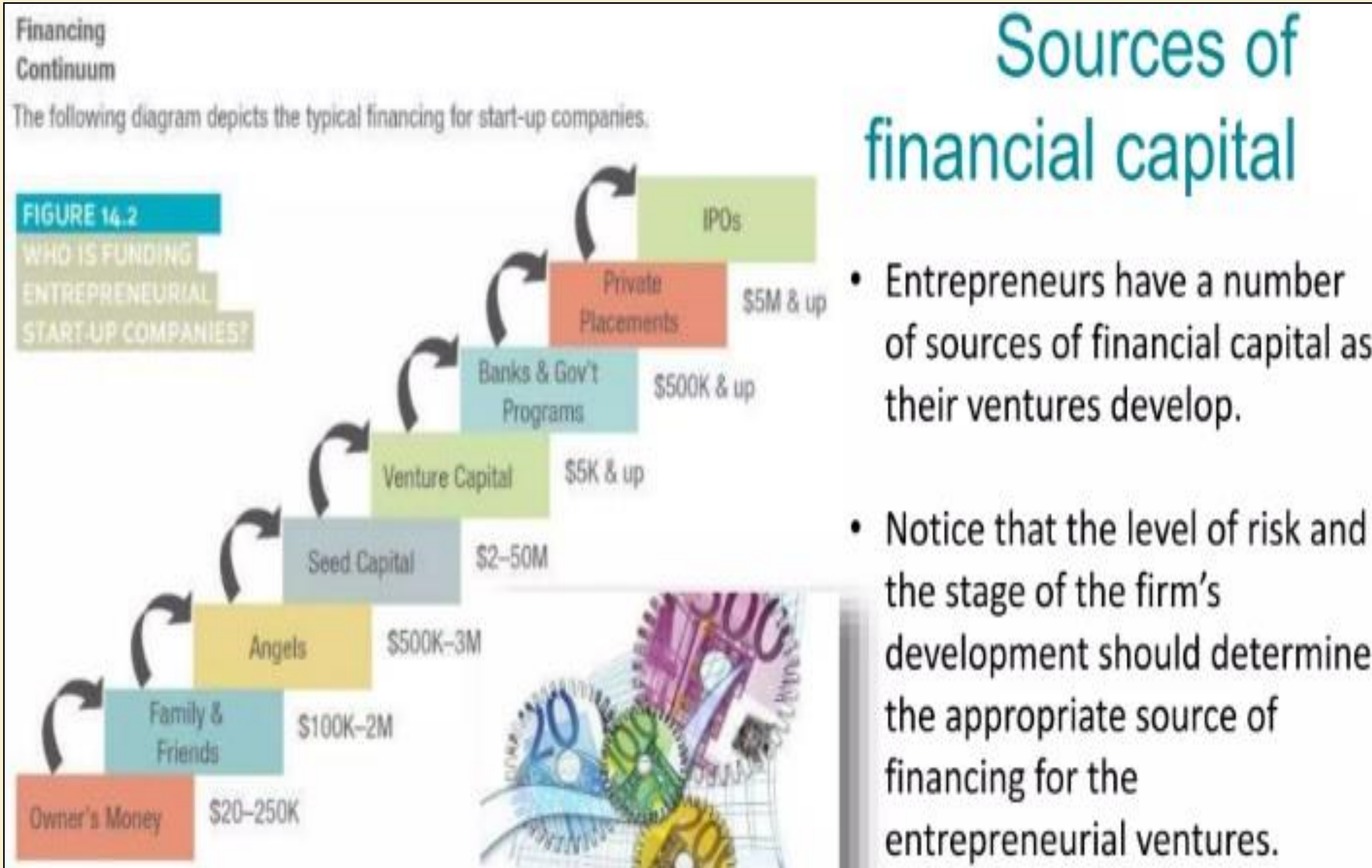
Forms of entrepreneurial capital (Cont.)

- **Human capital:** Talents and capabilities that individuals contribute to the process of production.
- **Economic capital**: It is composed of both finance capital (cash, money) and manufacturing capital (manufacturing plants and other physical assets).
- **Manufactured capital**: Physical means of production that can be acquired or found in nature, including tools, clothing, shelter, irrigation systems, dams, roads, boats, factories, etc.
- **Social capital**: Connections within and between social networks as well as connections among individuals.
- **Nature capital**: Stock of natural ecosystems that yields a flow of goods or services into the future.

Sources of financial capital

- Where to find start-up capital?
- What type of capital to use and when?
- Entrepreneurs have a few sources of financial capital as their ventures develop.
- The level of risk and the stage of the firm’s development help determine the appropriate sources of financing for entrepreneurial ventures.
- Many other sources of capital include family, bootstrap, informal investors, banks, venture capitalists, angel investors, crowdfunding, natural capital, etc.

Sources of financial capital (Cont.)



How to get money from your family

- Know their motivations.
- Debt is better than equity for relatives.
- Do follow-up with a written memo.
- Try to treat them as if they were strangers. Have a lawyer prepare the promissory note.
- Try to avoid a repayment schedule.
- Do not give voting stock.

- **Promissory note**: A promissory note (note payable) given as tangible recognition of a supplier's claim, or a note given in connection with an acquisition of funds.

Informal Investing

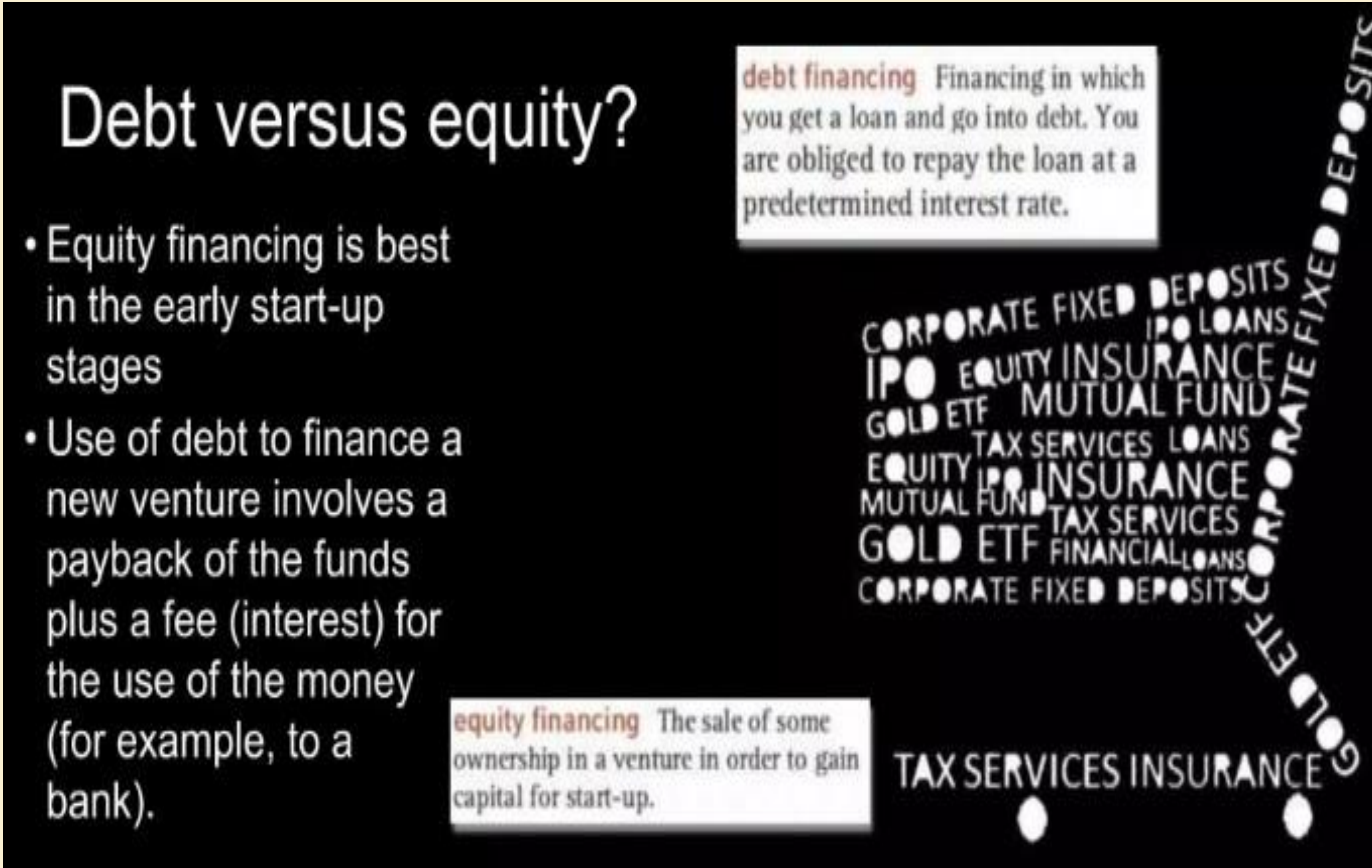
4Fs Friends, family, founders and other 'foolhardy investors' – types of informal investors.

informal investors The 4Fs – Friends, Family, Founders and other 'Foolhardy' investors (to that we could also add neighbours, work colleagues and even strangers).

Informal investing

- Informal investors are often from the 4Fs:
  - Friends, family, founders and 'foolhardy investors'
  - Neighbours, work colleagues and even strangers
- Expected returns are affected by altruism
  - Strangers expect higher returns than parents
  - Men expect higher returns than women
  - Older persons expect lower returns than younger
  - Entrepreneurs expect higher returns than non-entrepreneurs

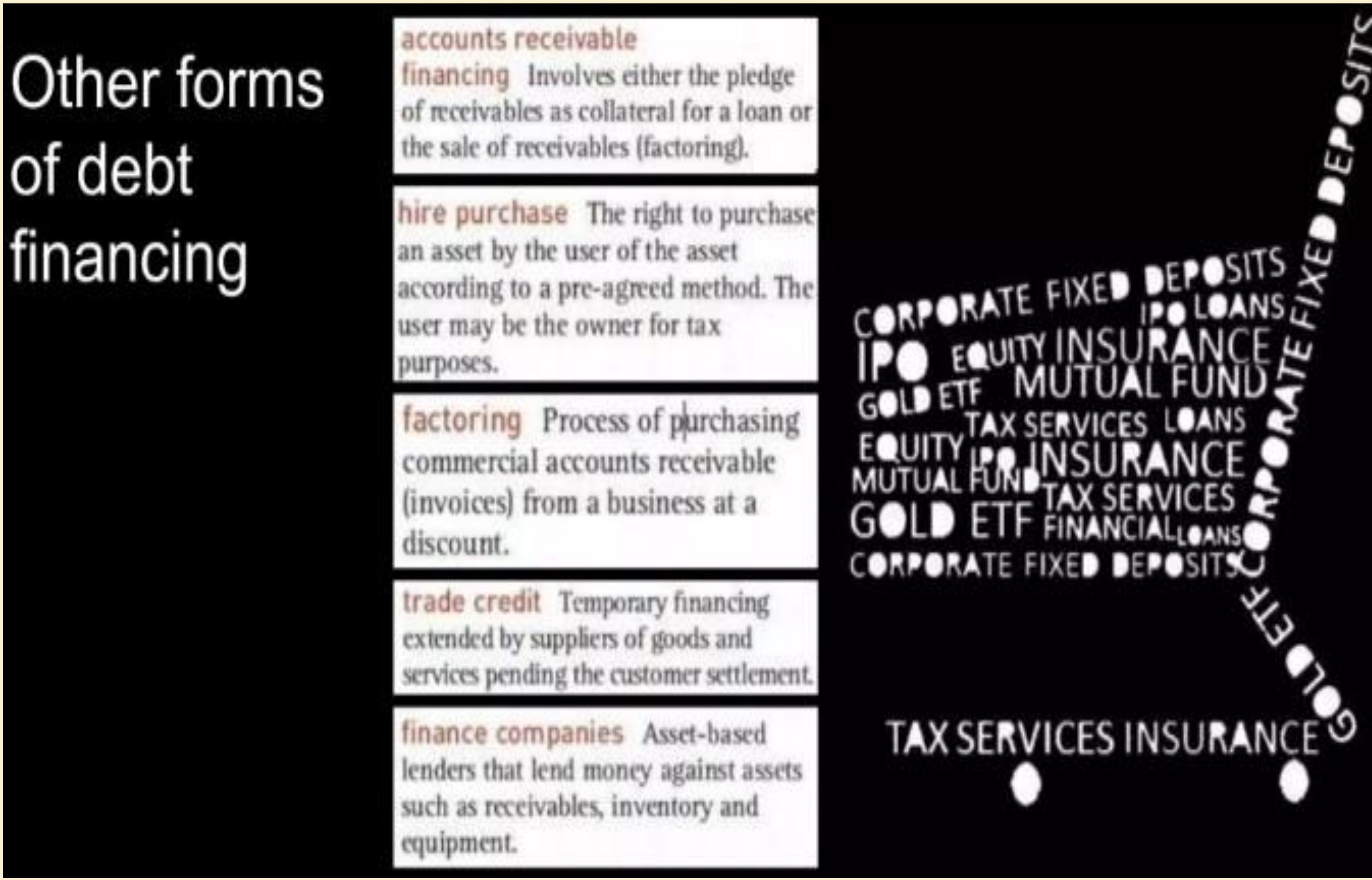
Debt versus Equity



Debt financing through banks

Source: Cengage learning. Copyright@2016 Cengage learning

Other forms of debt financing



 Dr. Tran Van Hai Trieu

How different finance options will affect profitability or cash flow

Table 14.1 How different finance options will affect profitability or cash flow

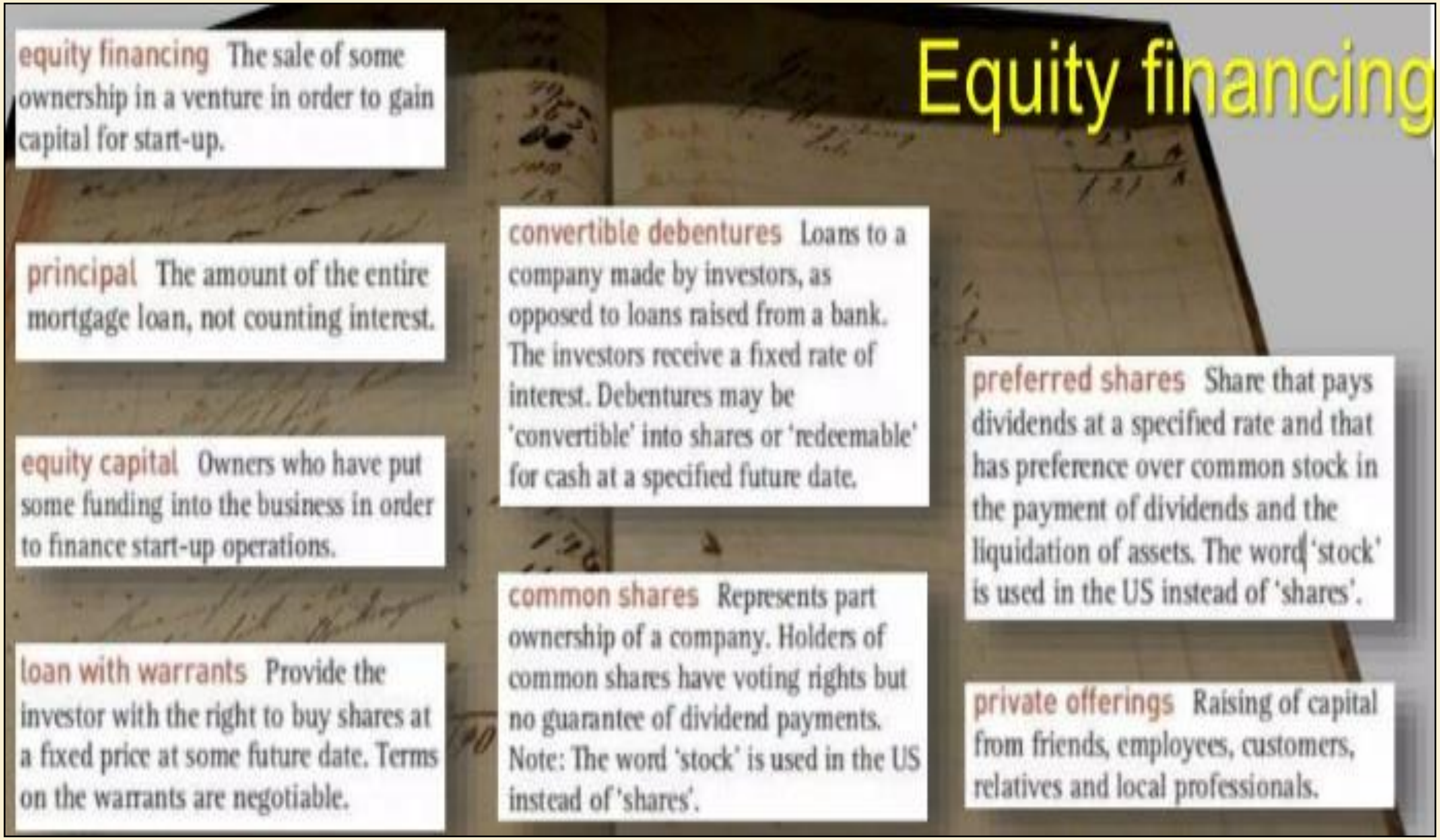
EQUITY FINANCING		DEBT FINANCING	
ADVANTAGES	DISADVANTAGES	ADVANTAGES	DISADVANTAGES
Can provide a large injection of capital	Capital is usualy only available in very large amounts	Amount borrowed can vary according to your needs	It creates a debt obligation
No interest payments	It means 'selling' a part of your business	As long as it is repaid, it will not affect your ownership of the company	Interest will be charged – affecting profitability
No obligation to repay capital	Venture capitalists expect high returns on their investments (at least 25% pa)		Collateral is usually required and banks will value your assets conservatively
	Investors may require you to buy them out at a future point		If you borrow from friends or relatives it can sour relations if the business fails

Equity Financing

- What kinds of people or organizations might buy ownership in a new venture and why?
- Can you sell shares in your business before you make money?

- No obligation to repay.
- But the entrepreneur gives up part ownership.
- Equity capital can be raised in two ways:
- Public stock offerings, called initial public offering (IPO).
- Private placements, which involves private investors purchasing shares or something bonds.

Equity Financing (Cont.)



Public Stock Offering by IPO

Public stock offering (by IPO)

Nasdaq welcomes Facebook's IPO.

- 'Initial public offering' (IPO)
- First-ever sale of shares to the public
- 'Going public' or 'floating'
- The IPO market has been a rollercoaster since the late 1990s

initial public offering (IPO) A corporation's way of raising capital through the sale of securities on the public markets.

liquidity Any asset that can be sold without causing a significant price change and with minimum loss of value.

disclosure Information relevant to specific transactions that is required by law.

prospectus A document, published prior to the issue of shares to the public, which explains all aspects of a company's business.

Private Placements

Private placements

private placement A method of raising capital through securities; often used by small ventures.

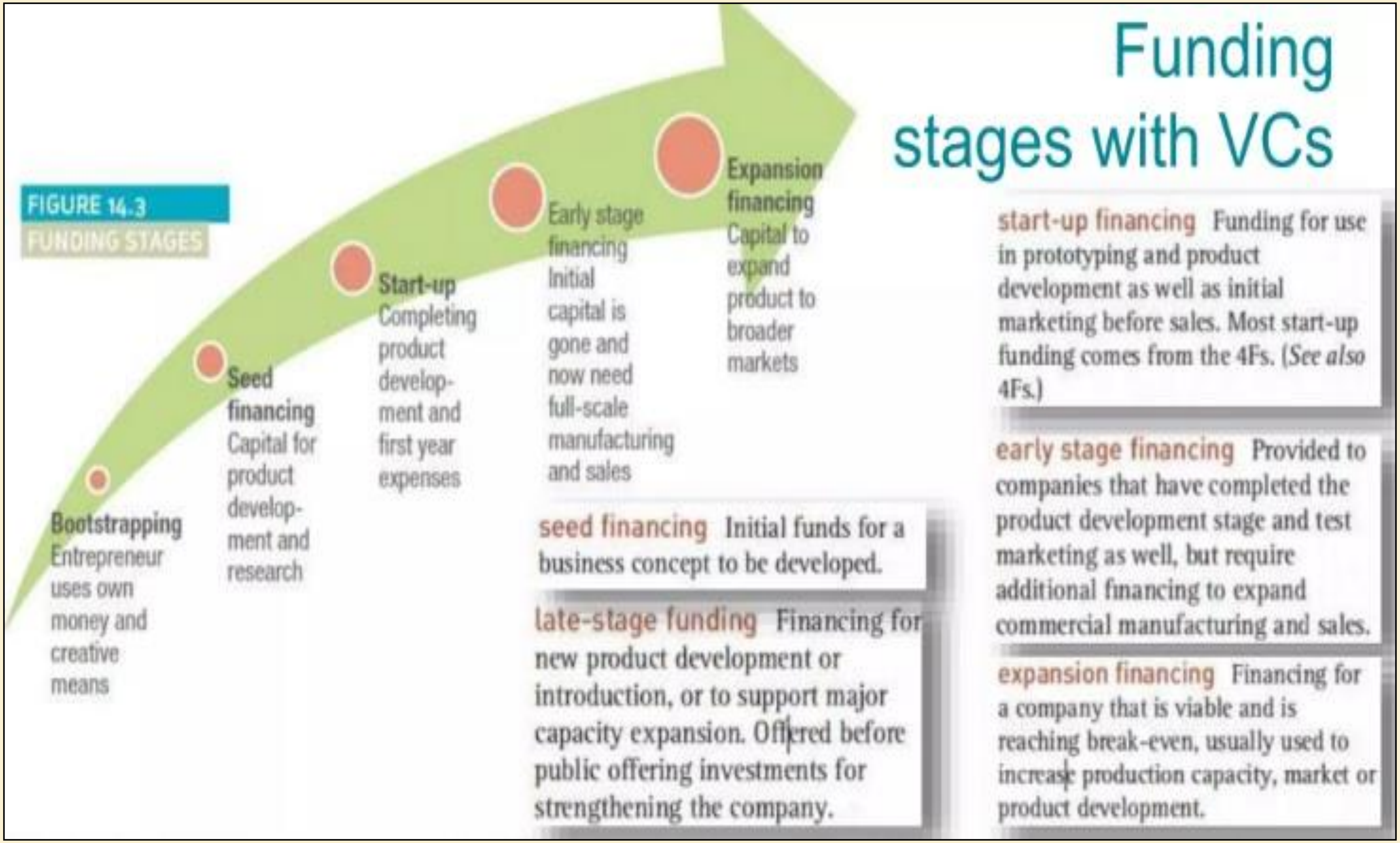
- The ideal small-business candidate for private placement is a company looking for growth or expansion funding.
- A private placement is suitable when you need an injection of capital to jump to the next level of growth and you have a proven track record of profitability.

prospectus A document, published prior to the issue of shares to the public, which explains all aspects of a company's business.

Venture capital in the new era

- There was a time when an entrepreneur with a bright idea could just walk into a venture capitalist's office in Silicon Valley or Shanghai and get a heap of money to develop that idea.
- Now those days are gone.
- But we are still building the same innovative and world-changing products.
- Venture capitalists can provide:
  - ❖ Capital for startup and expansion.
  - ❖ Market research and strategy.
  - ❖ Management with prospective customers and suppliers.
  - ❖ Management consulting functions.
  - ❖ Help in risk management, etc.

Funding stages with Venture Capital



Myths about Venture Capitalist

Myths about VC

- Venture capital firms want to own control of your company and tell you how to run the business.
- Venture capitalists are satisfied with a reasonable return on investments.
- Venture capitalists are quick to invest.
- Venture capitalists are interested in backing new ideas or high-technology inventions – management is a secondary consideration.
- Venture capitalists need only basic summary information before they make an investment.

Top factors Venture Capitalists use to evaluate your proposal

- Timing of entry.
- Key success factor stability.
- Educational capability.
- Lead time.
- Competitive rivalry.
- Entry wedge imitation.
- Scope.
- Industry-related competence.

Business Angels

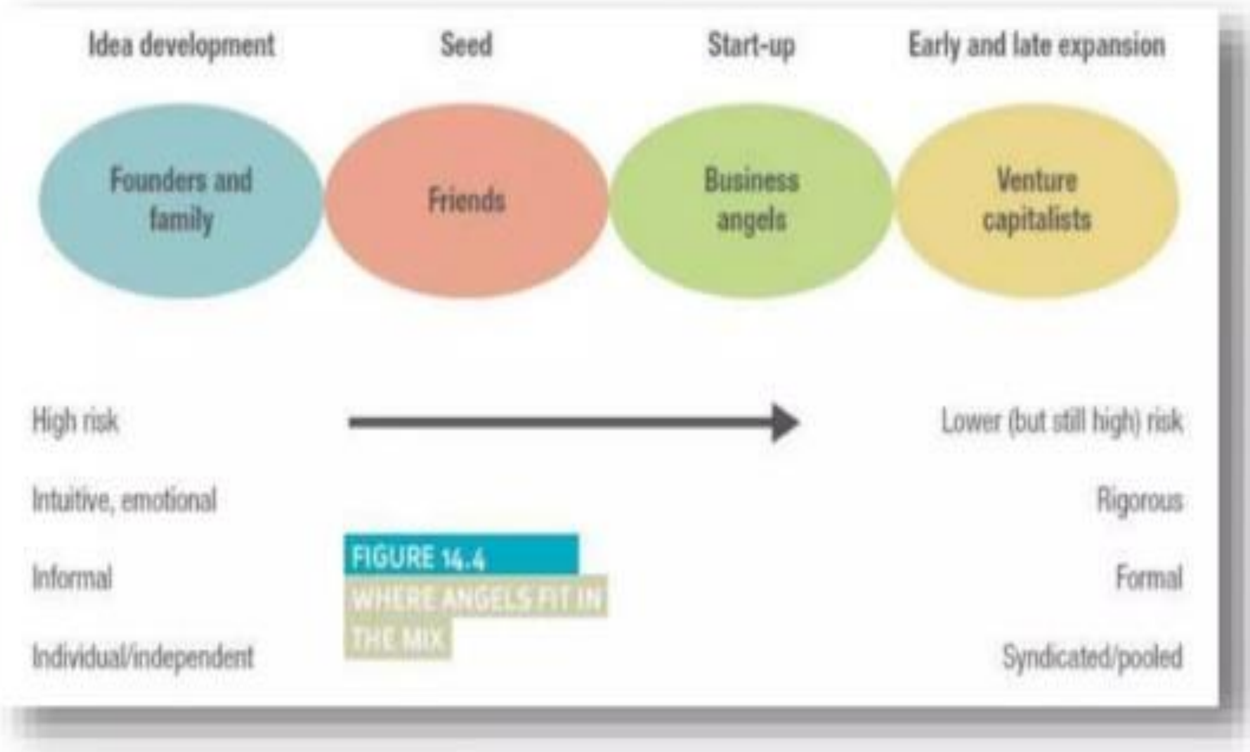


FIGURE 14.4
WHERE ANGELS FIT IN THE MIX

Business angels

- Wealthy people looking for investment opportunities.
- Range from passive (backing others' judgements) through to hands-on

- Angels invest as individuals (often as part of a group) whereas venture capital generally comes via a company

business angel A private investor who contributes money and experience to early stage investments.

Types of Angel Investors

Types of angel investors

TABLE 14.6 MAIN DIFFERENCES BETWEEN BUSINESS ANGELS AND VENTURE CAPITALISTS

MAIN DIFFERENCES	BUSINESS ANGELS	VENTURE CAPITALISTS
Personal	Entrepreneurs	Investors
Firms funded	Small, early-stage	Large, mature
Due diligence done	Minimal	Extensive
Location of investment	Of concern	Not important
Contract used	Simple	Comprehensive
Monitoring after investment	Active, hands-on	Strategic
Exiting the firm	Of lesser concern	Highly important
Rate of return	Of lesser concern	Highly important

corporate angels A type of angel investor, typically senior managers who have been laid off with generous severances or have taken early retirement.

entrepreneurial angels The most prevalent type of investor is the entrepreneurial angel. Most of these individuals own and operate highly successful businesses.

enthusiast angels Angels that simply love to be involved in deals.

micro-management angel An investor who imposes tactics on their company that worked for them. Can be a bothersome angel.

professional angels Professionals such as doctors or lawyers who invest in companies that offer a product or service with which they have some experience.

New forms of Entrepreneurial Capital

New forms of entrepreneurial capital

- Most textbooks stop here, but we carry on!
- More to capital-raising than venture capital or bank loans.
  - –Islamic finance
  - –Finding an 'impact investor'
  - –Micro-credit
  - –Peer-to-peer lending
  - –Crowdfunding
  - –Raising natural capital

New forms of Entrepreneurial Capital (Cont.)

- **Micro-credit**
  - ❖ Very small loans to entrepreneurs who lack collateral.
  - ❖ Informal financial service providers.
  - ❖ Member-owned organizations.
  - ❖ Non-governmental organization (NGOs).
  - ❖ Banks servicing “pre-banking customers”.
- **Peer-to-peer lending**
  - ❖ Social lending removes costly intermediaries known as banks.
  - ❖ Bringing pools of borrowers together with individual investors.
  - ❖ Loan of $1000 to a specific borrower is often funded by $25 investments from 40 different lenders.
- **Raising natural capital**
  - ❖ Natural capital is typically sold, used, discarded and then dumped back onto the ground.
- **Impact investing**
  - ❖ It prevents future market meltdowns and avoids climate change.

2. Financial preparation for entrepreneurial ventures

Key Financial Statements

- Financial statements are powerful tools that entrepreneurs can use to manage their ventures.
- The basic financial statements an entrepreneur needs to have are as follows:
  - ❖ The balance sheet.
  - ❖ The income statement.
  - ❖ The cash-flow statement.

The Balance Sheet

- A balance sheet is a financial statement that reports a business's financial position at a specific time.
- The balance sheet is divided into two parts: the financial resources owned by the firm and the claims against these resources.
- The financial resources the firm owns are called ***assets***. The claims that creditors have against the company are called ***liabilities***. The residual interest of the firm's owners is known as ***owners' equity***.
- Assets are listed on the left, and liabilities and owners' equity are listed on the right.

The Balance Sheet (Cont.)

- An asset is something of value the business owns. To determine the value of an asset, the owner/manager must do the following:
  - ❖ Identify the resource.
  - ❖ Provide a monetary measurement of that resource’s value.
  - ❖ Establish the degree of ownership in the resource.
- Most assets can be identified easily.
  - ❖ Tangible assets: cash, land, equipment, etc.
  - ❖ Intangible assets: copyrights, patents, etc.

The Balance Sheet (Cont.)

- **Liabilities** are the debts of the business ➔ A common liability is a short-term account payable in which the business orders some merchandise, receives it, and has not yet paid for it.
  - ❖ **Short-term liabilities** (also called **current liabilities**) are those that must be paid during the coming 12 months.
  - ❖ **Long-term liabilities** are those that are not due and payable within the next 12 months, such as a mortgage on a building or a five-year bank loan.
- **Owners' equity** is what remains after the firm's liabilities are subtracted from its assets.
  - ❖ If the business loses money, its owners' equity will decline.

The Balance Sheet (Cont.)

- **Balance sheet always balances**

Assets = Liabilities + Owners' equity

❖ The following chart relates debits and credits to increases and decreases.

Category	A Transaction Increasing the Amount	A Transaction Decreasing the Amount
Asset	Debit	Credit
Liability	Credit	Debit
Owners' equity	Credit	Debit

❖ The following examples of credits and debits.

	Debit	Credit
Credit Transaction		
Inventory	$11,000	
Accounts payable		$11,000
Bank Loan		
Cash	110,000	
Bank Loan		110,000
Stock Sale		
Cash	400,000	
Common Stock		400,000
	$511,000	$511,000

Understanding the Balance Sheet

- Kendon Corporation Balance Sheet for the Year Ended December 31, 2018.

Assets		
Current Assets		
Cash		$200,000
Accounts receivable	$375,000	
Less: allowance for uncollectible accounts	$25,000	350,000
Inventory		150,000
Prepaid expenses		35,000
Total current assets		$735,000
Fixed Assets		
Land		$330,000
Building	$315,000	
Less: accumulated depreciation of building	80,000	
Equipment	410,000	
Less: accumulated depreciation of equipment	60,000	
Total fixed assets		915,000
Total assets		$1,650,000

Liabilities		
Current Liabilities		
Accounts payable	$150,000	
Notes payable	25,000	
Taxes payable	75,000	
Loan payable	50,000	
Total current liabilities		$300,000
Bank loan		200,000
Total liabilities		$500,000
Owners' Equity		
Contributed Capital		
Common stock, $10 par, 40,000 shares	$400,000	
Preferred stock, $100 par, 500 shares		
Authorized, none sold		
Retained Earnings	750,000	
Total owners' equity		1,150,000
Total liabilities and owners' equity		$1,650,000

Understanding the Balance Sheet (Cont.)

- Vietnam Dairy Products Joint Stock Company (31.12.2023).

Vietnam Dairy Products Joint Stock Company and its subsidiaries
Consolidated statement of financial position as at 31 December 2023

Form B 01 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC dated 22 December 2014 of the Ministry of Finance)

	Code	Note	31/12/2023 VND	1/1/2023 VND
ASSETS				
Current assets (100 = 110 + 120 + 130 + 140 + 150)	**100**		**35,935,879,621,477**	**31,560,382,174,201**
Cash and cash equivalents	**110**	**V.1**	**2,912,027,359,925**	**2,299,943,527,624**
Cash	111		1,025,487,470,250	1,327,429,518,437
Cash equivalents	112		1,886,539,889,675	972,514,009,187
Short-term financial investments	**120**		**20,137,243,800,460**	**17,414,055,328,683**
Trading securities	121	V.4(a)	1,193,065,962	1,159,355,253
Allowance for diminution in the value of trading securities	122	V.4(a)	(822,663,402)	(689,745,197)
Held-to-maturity investments	123	V.4(b)	20,136,873,397,900	17,413,585,718,627
Accounts receivable – short-term	**130**		**6,529,705,184,034**	**6,100,402,870,854**
Accounts receivable from customers	131		4,808,183,557,645	4,633,942,510,271
Prepayments to suppliers	132		655,619,313,409	589,439,884,812
Other short-term receivables	136	V.3(a)	1,080,803,411,003	890,466,200,571
Allowance for doubtful debts	137	V.2	(14,901,098,023)	(13,445,724,800)
Inventories	**140**	**V.5**	**6,128,081,805,088**	**5,537,563,396,117**
Inventories	141	V.5	6,165,935,294,543	5,560,169,453,504
Allowance for inventories	149	V.5	(37,853,489,455)	(22,606,057,387)
Other current assets	**150**		**228,821,471,970**	**208,417,050,923**
Short-term prepaid expenses	151	V.11(a)	82,860,441,483	97,570,693,043
Deductible value added tax	152		99,428,954,456	89,204,099,539
Taxes receivable from State Treasury	153		46,532,076,031	21,642,258,341

Source: https://www.vinamilk.com.vn/en/investor-relations/financial-reports

Understanding the Balance Sheet (Cont.)

- Vietnam Dairy Products Joint Stock Company (31.12.2023).

Form B 01 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC dated 22 December 2014 of the Ministry of Finance)

	Code	Note	31/12/2023 VND	1/1/2023 VND
Long-term assets (200 = 210 + 220 + 230 + 240 + 250 + 260)	**200**		**16,737,491,482,983**	**16,922,282,062,019**
Accounts receivable – long-term	**210**		**16,131,990,975**	**38,422,722,715**
Other long-term receivables	216	V.3(b)	16,131,990,975	38,422,722,715
Fixed assets	**220**		**12,689,652,377,511**	**11,903,207,642,940**
Tangible fixed assets	221	V.6	11,688,520,305,045	10,860,366,507,422
Cost	*222*		*31,109,174,369,693*	*28,502,157,270,867*
Accumulated depreciation	*223*		*(19,420,654,064,648)*	*(17,641,790,763,445)*
Intangible fixed assets	227	V.7	1,001,132,072,466	1,042,841,135,518
Cost	*228*		*1,366,405,903,459*	*1,353,423,614,905*
Accumulated amortisation	*229*		*(365,273,830,993)*	*(310,582,479,387)*
Investment property	**230**	**V.8**	**55,594,154,394**	**57,593,807,783**
Cost	231		98,822,678,885	98,822,678,885
Accumulated depreciation	232		(43,228,524,491)	(41,228,871,102)
Long-term work in progress	**240**		**936,923,649,898**	**1,805,129,940,386**
Long-term work in progress	241	V.9	381,979,710,802	334,547,387,349
Construction in progress	242	V.10	554,943,939,096	1,470,582,553,037
Long-term financial investments	**250**		**831,227,597,345**	**742,670,306,431**
Investments in associates, joint venture	252	V.4(c)	602,591,028,932	664,302,778,018
Equity investments in other entities	253	V.4(c)	101,975,059,081	101,950,219,081
Allowance for diminution in the value of long-term financial investments	254	V.4(c)	(23,582,690,668)	(23,582,690,668)
Held-to-maturity investments	255	V.4(b)	150,244,200,000	-
Other non-current assets	**260**		**2,207,961,712,860**	**2,375,257,641,764**
Long-term prepaid expenses	261	V.11(b)	871,585,543,337	772,804,663,141
Deferred tax assets	262	V.12(a)	14,448,509,586	34,985,203,461
Goodwill	269	V.13	1,321,927,659,937	1,567,467,775,162
TOTAL ASSETS (270 = 100 + 200)	**270**		**52,673,371,104,460**	**48,482,664,236,220**

Source: https://www.vinamilk.com.vn/en/investor-relations/financial-reports

Understanding the Balance Sheet (Cont.)

- Vietnam Dairy Products Joint Stock Company (31.12.2023).

(Issued under Circular No. 202/2014/TT-BTC dated 22 December 2014 of the Ministry of Finance)

	Code	Note	31/12/2023 VND	1/1/2023 VND
RESOURCES				
LIABILITIES (300 = 310 + 330)	**300**		**17,647,627,338,990**	**15,666,145,881,135**
Current liabilities	**310**		**17,138,689,974,862**	**15,308,423,081,524**
Accounts payable to suppliers	311	V.14	3,805,885,429,198	4,284,158,390,163
Advances from customers	312		164,712,782,108	161,708,567,120
Taxes payable to State Treasury	313	V.16	967,878,916,785	598,135,128,295
Payables to employees	314		289,224,237,367	287,914,221,269
Accrued expenses	315	V.17	1,910,204,625,860	1,620,874,538,443
Short-term unearned revenue	318		263,912,729	4,161,405,120
Other short-term payables	319	V.18	1,193,900,858,465	3,055,541,590,234
Short-term borrowings	320	V.15(a)	8,217,757,172,267	4,867,129,839,103
Provision	321	V.19	16,770,514,285	26,635,759,312
Bonus and welfare fund	322	V.20	572,091,525,798	402,163,642,465
Long-term liabilities	**330**		**508,937,364,128**	**357,722,799,611**
Other long-term payables	337	V.18	1,063,378,252	3,711,780,002
Long-term borrowings	338	V.15(b)	238,476,074,100	66,028,725,000
Deferred tax liabilities	341	V.12(b)	269,397,911,776	287,982,294,609
EQUITY (400 = 410)	**400**		**35,025,743,765,470**	**32,816,518,355,085**
Owners' equity	**410**	**V.21**	**35,025,743,765,470**	**32,816,518,355,085**
Share capital	411	V.22	20,899,554,450,000	20,899,554,450,000
Share premium	412		34,110,709,700	34,110,709,700
Other capital	414		499,080,803,215	202,658,418,215
Foreign exchange differences	417		174,100,152,253	92,498,048,227
Investment and development fund	418		6,163,736,586,996	5,266,761,584,973
Retained profits	421		3,926,232,003,987	3,353,468,092,666
- Retained profits brought forward	*421a*		*1,068,453,760,015*	*2,682,865,082,625*
- Profit for the current year	*421b*		*2,857,778,243,972*	*670,603,010,041*
Non-controlling interest	429		3,328,929,059,319	2,967,467,051,304
TOTAL RESOURCES (440 = 300 + 400)	**440**		**52,673,371,104,460**	**48,482,664,236,220**

30 January 2024

Prepared by: Approved by:

CÔNG TY CỔ PHẦN SỮA VIỆT NAM

The Income Statement

- The income statement is a financial statement that shows the change that has occurred in a firm's position as a result of its operations over a specific period.
- It is in contrast to the balance sheet, which reflects the company's position at a particular point in time.
- The income statement, sometimes referred to as a "profit and loss statement" or "P&L," reports the success (or failure) of the business during the period.
- For purposes of simplicity, the income statement can be reduced to three primary categories: (1) Revenue; (2) Expenses; and (3) Net income.

The Income Statement (Cont.)

- ***Revenues*** are the gross sales the business made during the particular period under review. It often consists of the money actually received from sales, but this need not be the case.
  - ❖ For example, sales made on account still are recognized as revenue, as when a furniture store sells $500 of furniture to a customer today, delivers it tomorrow, and will receive payment two weeks from now. From the moment the goods are delivered, the company can claim an increase in revenue.

The Income Statement (Cont.)

- ***Expenses*** are the costs associated with producing goods or services. For the furniture store in the preceding paragraph, the expenses associated with the sale would include the costs of acquiring, selling, and delivering the merchandise. Sometimes these are expenses that will be paid later.
  - ❖ For example, the people who deliver the furniture may be paid every two weeks, so the actual outflow of expense money in the form of salaries will not occur at the same time the work is performed. Nevertheless, it is treated as an expense.

The Income Statement (Cont.)

- ***Net income*** is the excess of revenue over expenses during the particular period under discussion.
  - ❖ If revenues exceed expenses, the result is a net profit. If the reverse is true, the firm suffers a net loss.
  - ❖ At the end of the accounting period, all of the revenues and expenses associated with all of the sales of goods and services are added together, and then the expenses are subtracted from the revenues.
  - ❖ In this way, the firm knows whether it made an overall profit or suffered an overall loss.

Understanding the Income Statement

- Kendon Corporation Income Statement for the Year Ended December 31, 2018.

Table 11.3 Kendon Corporation Income Statement for the Year Ended December 31, 2018

Sales Revenue	$1,750,000	
Less: Sales returns and allowances	50,000	
Net sales		$1,700,000
Cost of Goods Sold		
Inventory, January, 2000	$150,000	
Purchases	1,050,000	
Goods available for sale	$1,200,000	
Less: Inventory, December, 2000	200,000	
Cost of goods sold		1,000,000
Gross margin		$700,000
Operating Expenses		
Selling expenses	$150,000	
Administrative expenses	100,000	
Total operating expenses		250,000
Operating income		$450,000
Financial Expenses		$20,000
Income before income taxes		$430,000
Estimated Income Taxes		172,000
Net profit		$258,000

Understanding the Income Statement (Cont.)

- Vietnam Dairy Products Joint Stock Company (31.12.2023).

Vietnam Dairy Products Joint Stock Company and its subsidiaries
Consolidated statement of income for fourth quarter and year ended 31 December 2023

Form B 02 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC dated 22 December 2014 of the Ministry of Finance)

	Code	Note	Three-month period ended 31/12/2023 VND	Three-month period ended 31/12/2022 VND	Year ended 31/12/2023 VND	Year ended 31/12/2022 VND
Revenue from sales of goods and provision of services	**01**	**VI.1**	**15,630,458,869,279**	**15,080,733,191,774**	**60,478,912,566,740**	**60,074,730,223,299**
Revenue deductions	**02**	**VI.1**	**11,747,924,789**	**12,078,534,321**	**109,997,055,235**	**118,483,025,881**
Net revenue (10 = 01 - 02)	**10**	**VI.1**	**15,618,710,944,490**	**15,068,654,657,453**	**60,368,915,511,505**	**59,956,247,197,418**
Cost of sales	**11**	**VI.2**	**9,177,098,353,000**	**9,223,066,245,408**	**35,824,183,896,095**	**36,059,015,690,711**
Gross profit (20 = 10 - 11)	**20**		**6,441,612,591,490**	**5,845,588,412,045**	**24,544,731,615,410**	**23,897,231,506,707**
Financial income	21	VI.3	428,868,705,495	379,190,751,224	1,716,367,576,333	1,379,904,407,740
Financial expenses	22	VI.4	118,785,839,541	207,242,758,610	503,122,771,214	617,537,182,995
In which: Interest expense	*23*		*96,231,603,161*	*53,226,546,796*	*354,094,837,255*	*166,039,091,744*
Share of loss in associates and joint venture	24	V.4(c)	(28,037,460,234)	(4,556,583,050)	(80,631,298,646)	(24,475,976,403)
Selling expenses	25	VI.5	3,493,712,827,314	3,335,004,548,411	13,018,093,111,879	12,548,212,246,871
General and administration expenses	26	VI.6	504,122,733,414	448,926,418,471	1,755,619,128,197	1,595,845,681,078
Net operating profit {30 = 20 + (21 - 22) + 24 - (25 + 26)}	**30**		**2,725,822,436,482**	**2,229,048,854,727**	**10,903,632,881,807**	**10,491,064,827,100**
Other income	31	VI.7	240,821,530,736	148,365,579,501	353,408,891,551	289,021,799,127
Other expenses	32	VI.8	114,579,366,839	82,172,192,394	289,142,381,872	284,551,949,482
Results of other activities (40 = 31 - 32)	**40**		**126,242,163,897**	**66,193,387,107**	**64,266,509,679**	**4,469,849,645**

The accompanying notes are an integral part of these consolidated financial statements

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Source: https://www.vinamilk.com.vn/en/investor-relations/financial-reports

Understanding the Income Statement (Cont.)

- Vietnam Dairy Products Joint Stock Company (31.12.2023).

Vietnam Dairy Products Joint Stock Company and its subsidiaries
Consolidated statement of income for fourth quarter and year ended 31 December 2023

Form B 02 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC dated 22 December 2014 of the Ministry of Finance)

	Code	Note	Three-month period ended 31/12/2023 VND	Three-month period ended 31/12/2022 VND	Year ended 31/12/2023 VND	Year ended 31/12/2022 VND
Revenue from sales of goods and provision of services	01	VI.1	15,630,458,869,279	15,080,733,191,774	60,478,912,566,740	60,074,730,223,299
Revenue deductions	02	VI.1	11,747,924,789	12,078,534,321	109,997,055,235	118,483,025,881
Net revenue (10 = 01 - 02)	10	VI.1	15,618,710,944,490	15,068,654,657,453	60,368,915,511,505	59,956,247,197,418
Cost of sales	11	VI.2	9,177,098,353,000	9,223,066,245,408	35,824,183,896,095	36,059,015,690,711
Gross profit (20 = 10 - 11)	20		6,441,612,591,490	5,845,588,412,045	24,544,731,615,410	23,897,231,506,707
Financial income	21	VI.3	428,868,705,495	379,190,751,224	1,716,367,576,333	1,379,904,407,740
Financial expenses	22	VI.4	118,785,839,541	207,242,758,610	503,122,771,214	617,537,182,995
In which: Interest expense	*23*		*96,231,603,161*	*53,226,546,796*	*354,094,837,255*	*166,039,091,744*
Share of loss in associates and joint venture	24	V.4(c)	(28,037,460,234)	(4,556,583,050)	(80,631,298,646)	(24,475,976,403)
Selling expenses	25	VI.5	3,493,712,827,314	3,335,004,548,411	13,018,093,111,879	12,548,212,246,871
General and administration expenses	26	VI.6	504,122,733,414	448,926,418,471	1,755,619,128,197	1,595,845,681,078
Net operating profit {30 = 20 + (21 - 22) + 24 - (25 + 26)}	30		2,725,822,436,482	2,229,048,854,727	10,903,632,881,807	10,491,064,827,100
Other income	31	VI.7	240,821,530,736	148,365,579,501	353,408,891,551	289,021,799,127
Other expenses	32	VI.8	114,579,366,839	82,172,192,394	289,142,381,872	284,551,949,482
Results of other activities (40 = 31 - 32)	40		126,242,163,897	66,193,387,107	64,266,509,679	4,469,849,645

The accompanying notes are an integral part of these consolidated financial statements

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Source: https://www.vinamilk.com.vn/en/investor-relations/financial-reports

Understanding the Income Statement (Cont.)

- Vietnam Dairy Products Joint Stock Company (31.12.2023).

Vietnam Dairy Products Joint Stock Company and its subsidiaries
Consolidated statement of income for fourth quarter and year ended 31 December 2023 (continued)

Form B 02 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC dated 22 December 2014 of the Ministry of Finance)

	Code	Note	Three-month period ended 31/12/2023 VND	Three-month period ended 31/12/2022 VND	Year ended 31/12/2023 VND	Year ended 31/12/2022 VND
Profit before tax (50 = 30 + 40)	**50**		**2,852,064,600,379**	**2,295,242,241,834**	**10,967,899,391,486**	**10,495,534,676,745**
Income tax expense – current	**51**	**VI.10**	**527,166,047,542**	**469,246,818,237**	**1,948,363,404,628**	**1,956,248,296,285**
Income tax (benefit)/expense – deferred	**52**	**VI.10**	**(25,806,937,118)**	**(43,126,134,573)**	**181,821,807**	**(38,288,939,248)**
Net profit after tax (60 = 50 - 51 - 52)			**2,350,705,489,955**	**1,869,121,558,170**	**9,019,354,165,051**	**8,577,575,319,708**
Attributable to:						
Equity holders of the Company	61		2,326,013,960,066	1,869,125,571,613	8,873,812,416,864	8,516,023,694,342
Non-controlling interest	62		24,691,529,889	(4,013,443)	145,541,748,187	61,551,625,366
Basic earnings per share	**70**	**VI.11**	**999**	**797**	**3,796**	**3,632**

30 January 2024

Prepared by:

Le Thanh Liem
Executive Director – Finance cum Chief Accountant

Approved by:

CÔNG TY CỔ PHẦN SỮA VIỆT NAM
M.S.D.N: 0300588569
QUẬN 7 - T.P HỒ CHÍ MINH

Mai Kieu Lien
Chief Executive Officer

The accompanying notes are an integral part of these consolidated financial statements

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Source: https://www.vinamilk.com.vn/en/investor-relations/financial-reports

The Cash-Flow Statement

- The cash-flow statement (also known as the statement of cash flows) shows the effects of a company's operating, investing, and financing activities on its cash balance.
- It is useful for answering such questions as:
  - ❖ How much cash did the firm generate from operations? How did the firm finance fixed capital expenditures?
  - ❖ How much new debt did the firm add?
  - ❖ Was the cash from operations sufficient to finance fixed asset purchases?

The Cash-Flow Statement (Cont.)

- The statement of cash flows is a supplement to the balance sheet and income statements.
- One of the limitations of the income and balance sheet statements is that they are based on accrual accounting, as follows:
  - ❖ If a sale is made for credit, under accrual accounting the sale is recognized but cash has not been received.
  - ❖ A tax expense may be shown in the income statement, but it may not be paid until later.

The Cash-Flow Statement (Cont.)

- The statement of cash flows is broken down into *operating*, *investing*, and *financing* activities.

Table 11.4 Format of Statement of Cash Flows

Cash flows from operating activities	$50,000
Cash flows from investing activities	($10,000)
Cash flows from financing activities	$5,000
Net increase (decrease) in cash	$45,000
Cash at beginning of period	$400,000
Cash at end of period	$445,000

The Cash-Flow Statement (Cont.)

- Vietnam Dairy Products Joint Stock Company (31.12.2023).

Vietnam Dairy Products Joint Stock Company and its subsidiaries
Consolidated statement of cash flows for the year ended 31 December 2023
(Indirect method)

Form B 03 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC dated 22 December 2014 of the Ministry of Finance)

	Code	Note	2023 VND	2022 VND
CASH FLOWS FROM OPERATING ACTIVITIES				
Profit before tax	**01**		**10,967,899,391,486**	**10,495,534,676,745**
Adjustments for				
Depreciation and amortisation	02		2,054,586,864,472	2,095,449,858,677
Amortisation of goodwill	02	V.13	245,540,115,225	245,540,115,225
Allowances and provisions	03		26,862,358,183	(4,572,925,078)
Exchange losses arising from revaluation of monetary items denominated in foreign currencies	04		7,448,121,735	3,222,766,873
Losses on disposals/written off of fixed assets and construction in progress	05		65,791,983,817	88,472,438,579
Dividends, interest income and other gain from investment activities	05		(1,543,397,439,960)	(1,210,689,718,561)
Share of loss in associates and joint venture	05		80,631,298,646	24,475,976,403
Interest expense	06	VI.4	354,094,837,255	166,039,091,744
Operating profit before changes in working capital	**08**		**12,259,457,530,859**	**11,903,472,280,607**
Change in receivables	09		(244,987,138,316)	(288,077,307,677)
Change in inventories	10		(1,021,313,389,573)	851,263,069,739
Change in payables and other liabilities	11		(443,378,131,758)	(386,032,574,554)
Change in prepaid expenses	12		7,868,182,212	(73,120,062,114)
Interest paid	14		(302,707,839,570)	(141,304,083,849)
Income tax paid	15	V.16	(1,564,073,949,237)	(1,975,289,763,439)
Other payments for operating activities	17		(803,441,702,254)	(1,063,638,382,197)
Net cash flows from operating activities	**20**		**7,887,423,562,363**	**8,827,273,176,516**

Source: https://www.vinamilk.com.vn/en/investor-relations/financial-reports

The Cash-Flow Statement (Cont.)

- Vietnam Dairy Products Joint Stock Company (31.12.2023).

Vietnam Dairy Products Joint Stock Company and its subsidiaries
Consolidated statement of cash flows for the year ended 31 December 2023
(Indirect method)

Form B 03 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC dated 22 December 2014 of the Ministry of Finance)

	Code	Note	2023 VND	2022 VND
CASH FLOWS FROM OPERATING ACTIVITIES				
Profit before tax	**01**		**10,967,899,391,486**	**10,495,534,676,745**
Adjustments for				
Depreciation and amortisation	02		2,054,586,864,472	2,095,449,858,677
Amortisation of goodwill	02	V.13	245,540,115,225	245,540,115,225
Allowances and provisions	03		26,862,358,183	(4,572,925,078)
Exchange losses arising from revaluation of monetary items denominated in foreign currencies	04		7,448,121,735	3,222,766,873
Losses on disposals/written off of fixed assets and construction in progress	05		65,791,983,817	88,472,438,579
Dividends, interest income and other gain from investment activities	05		(1,543,397,439,960)	(1,210,689,718,561)
Share of loss in associates and joint venture	05		80,631,298,646	24,475,976,403
Interest expense	06	VI.4	354,094,837,255	166,039,091,744
Operating profit before changes in working capital	**08**		**12,259,457,530,859**	**11,903,472,280,607**
Change in receivables	09		(244,987,138,316)	(288,077,307,677)
Change in inventories	10		(1,021,313,389,573)	851,263,069,739
Change in payables and other liabilities	11		(443,378,131,758)	(386,032,574,554)
Change in prepaid expenses	12		7,868,182,212	(73,120,062,114)
Interest paid	14		(302,707,839,570)	(141,304,083,849)
Income tax paid	15	V.16	(1,564,073,949,237)	(1,975,289,763,439)
Other payments for operating activities	17		(803,441,702,254)	(1,063,638,382,197)
Net cash flows from operating activities	**20**		**7,887,423,562,363**	**8,827,273,176,516**

Source: https://www.vinamilk.com.vn/en/investor-relations/financial-reports

The Cash-Flow Statement (Cont.)

- Vietnam Dairy Products Joint Stock Company (31.12.2023).

Vietnam Dairy Products Joint Stock Company and its subsidiaries
Consolidated statement of cash flows for the year ended 31 December 2023
(Indirect method – continued)

Form B 03 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC dated 22 December 2014 of the Ministry of Finance)

	Code	Note	2023 VND	2022 VND
CASH FLOWS FROM INVESTING ACTIVITIES				
Payments for additions to fixed assets and other long-term assets	21		(1,579,637,140,762)	(1,456,914,052,616)
Receipts from disposals of fixed assets and construction in progress	22		104,880,785,286	137,125,557,857
Payments for term deposits	23		(2,856,303,791,352)	-
Receipts from term deposits	24		-	3,634,715,046,607
Payments for investments in other entities	25		(35,769,832,735)	(43,175,000,000)
Collections from investments in other entities	26		10,570,000,000	-
Receipts of interest and dividends	27		1,367,711,469,062	1,201,019,963,250
Net cash flows from investing activities	**30**		**(2,988,548,510,501)**	**3,472,771,515,098**
CASH FLOWS FROM FINANCING ACTIVITIES				
Proceeds from additional shares issued to and capital contributed by non-controlling interest to a subsidiary	31		489,787,009,008	338,100,000,000
Capital refunded to a non-controlling interest of a dissolved subsidiary	32		(142,548,827,636)	-
Proceeds from borrowings	33		11,788,416,965,803	6,257,530,054,586
Payments to settle loan principals	34		(8,276,832,556,495)	(10,789,019,801,789)
Payments of dividends	36		(8,046,328,463,250)	(8,046,328,463,250)
Payments of dividends of subsidiaries to non-controlling interest	36		(105,267,788,700)	(120,571,155,470)
Net cash flows from financing activities	**40**		**(4,292,773,661,270)**	**(12,360,289,365,923)**

Source: https://www.vinamilk.com.vn/en/investor-relations/financial-reports

The Cash-Flow Statement (Cont.)

- Vietnam Dairy Products Joint Stock Company (31.12.2023).

Vietnam Dairy Products Joint Stock Company and its subsidiaries
Consolidated statement of cash flows for the year ended 31 December 2023
(Indirect method – continued)

Form B 03 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC dated 22 December 2014 of the Ministry of Finance)

	Code	Note	2023 VND	2022 VND
Net cash flows during the year (50 = 20 + 30 + 40)	50		606,101,390,592	(60,244,674,309)
Cash and cash equivalents at the beginning of the year	60		2,299,943,527,624	2,348,551,874,348
Effect of exchange rate fluctuations on cash and cash equivalents	61		(673,070,965)	(1,729,154,879)
Currency translation differences	62		6,655,512,674	13,365,482,464
Cash and cash equivalents at the end of the year (70 = 50 + 60 + 61 + 62)	70	V.1	2,912,027,359,925	2,299,943,527,624

30 January 2024

Prepared by:

Le Thanh Liem
Executive Director – Finance cum Chief Accountant

Approved by:

CÔNG TY CỔ PHẦN SỮA VIỆT NAM

Mai Kieu Lien
Chief Executive Officer

Source: https://www.vinamilk.com.vn/en/investor-relations/financial-reports

Preparing Financial Budgets

- One of the most powerful tools an entrepreneur can use in planning financial operations is a ***budget***.
  - ❖ The ***operating budget*** is a statement of estimated income and expenses during a specified period of time.
  - ❖ The ***cash-flow budget*** is a statement of estimated cash receipts and expenditures during a specified period of time.
  - ❖ The ***capital budget*** is used to plan expenditures on assets whose returns are expected to last beyond one year.

Preparing Financial Budgets (Cont.)

- ***Operating budget***

  ❖ The first step in creating an operating budget is the preparation of the sales forecast.

  - A statistical forecasting techniques (i.e., Simple linear regression (revenue & advertisement), etc.).
  - A sales forecast is an estimation of whether current sales will increase by a certain percentage over the prior period's sales.

Figure 11.1 Regression Analysis		
Simple Linear Regression ($000)		
A	2A	S=$200×2A
$50	$100	$300
100	200	400
150	300	500
200	400	600
250	500	700
300	600	800

Table 11.5 North Central Scientific: Sales Forecast for 2018						
	Jan.	**Feb.**	**Mar.**	**Apr.**	**May**	**June**
Sales	$300	$350	$400	$375	$500	$450
×1.05	315	368	420	394	525	473
	July	**Aug.**	**Sep.**	**Oct.**	**Nov.**	**Dec.**
Sales	$475	$480	$440	$490	$510	$550
×1.05	499	504	462	515	536	578

Preparing Financial Budgets (Cont.)

- ***Operating budget***

❖ The second step is an estimation of expenses.

➢ The cost of goods sold follows sales on the income statement.

Table 11.6 North Central Scientific: Purchase Requirements Budget for 2018

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Sales revenue	$315	$368	$420	$394	$525	$473	$499	$504	$462	$515	$536	$578
Cost of goods sold												
Beginning inventory	$63	$74	$84	$79	$105	$95	$100	$101	$92	$103	$107	$116
Purchases	263	305	331	341	410	383	400	395	380	416	437	413
Cost of goods available	$326	$379	$415	$420	$515	$478	$500	$496	$472	$519	$544	$529
Ending inventory	74	85	79	105	95	100	101	92	102	107	116	66
Cost of goods sold	$252	$294	$336	$315	$420	$378	$399	$403	$370	$412	$428	$462
Gross profit	$63	$74	$84	$79	$105	$95	$100	$101	$92	$103	$108	$116

$$\text{Cost of goods sold} = \text{Current period sales} \times .80$$

$$\text{Ending inventory} = \text{Next month's sales} \times (0.80)(0.25) \text{ (since inventory is carried at cost)}$$

$$\text{Cost of goods available} = \text{Cost of goods sold} - \text{Ending inventory}$$

$$\text{Beginning inventory} = \text{Prior month's ending inventory or current month's sales} \times (0.80)(0.25)$$

$$\text{Purchases} = \text{Cost of goods available} - \text{Beginning inventory}$$

$$\text{Gross profit} = \text{Sales} - \text{Cost of goods sold}$$

Preparing Financial Budgets (Cont.)

- ***Operating budget***
  - ❖ The second step is an estimation of expenses.
    - ➢ The cost of goods sold follows sales on the income statement.

Table 11.7 Dynamic Manufacturing: Production Budget Worksheet for 2018												
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Projected sales (units)	125	136	123	143	154	234	212	267	236	345	367	498
Desired ending inventory	14	12	14	15	23	21	27	24	35	37	50	26
Available for sale	139	148	137	158	177	255	239	291	271	382	417	524
Less: Beginning inventory	12	14	12	14	15	23	21	27	24	35	37	50
Total production requirements	127	134	125	144	162	232	218	264	247	347	380	474

Preparing Financial Budgets (Cont.)

- ***Operating budget***

  ❖ The last step is an estimation of operating expenses, including fixed costs, variable costs, and mixed costs.

North Central Scientific: Expense Budget for 2018												
	Jan.	**Feb.**	**Mar.**	**Apr.**	**May**	**June**	**July**	**Aug.**	**Sept.**	**Oct.**	**Nov.**	**Dec.**
Anticipated operating expenses												
Rent	$2	$2	$2	$2	$2	$2	$2	$2	$2	$2	$2	$2
Payroll	32	37	42	39	53	47	50	50	46	51	54	58
Utilities	5	5	5	5	5	5	5	5	5	5	5	5
Taxes	3	4	4	4	5	5	5	5	5	5	5	6
Supplies	16	18	21	20	26	24	25	25	23	26	27	29
Repairs	2	2	2	2	2	2	2	2	2	2	2	2
Total expenses	$60	$68	$76	$72	$93	$85	$89	$89	$83	$91	$95	$102
Sales revenue	$315	$368	$420	$394	$525	$473	$499	$504	$462	$515	$536	$578
Cost of goods sold												
Beginning inventory	$63	$74	$84	$79	$105	$95	$100	$101	$92	$103	$107	$116
Purchases	263	305	331	341	410	383	400	395	380	416	437	413
Cost of goods available	$326	$379	$415	$420	$515	$478	$500	$496	$472	$519	$544	$529
Ending inventory	74	85	79	105	95	100	101	92	102	107	116	66
Cost of goods sold	$252	$294	$336	$315	$420	$378	$399	$403	$370	$412	$428	$462
Gross profit	$63	$74	$84	$79	$105	$95	$100	$101	$92	$103	$108	$116
Operating expenses												
Rent	$2	$2	$2	$2	$2	$2	$2	$2	$2	$2	$2	$2
Payroll	32	37	42	39	53	47	50	50	46	51	54	58
Utilities	5	5	5	5	5	5	5	5	5	5	5	5
Taxes	3	4	4	4	5	5	5	5	5	5	5	6
Supplies	16	18	21	20	26	24	25	25	23	26	27	29
Repairs	2	2	2	2	2	2	2	2	2	2	2	2
Total expenses	$60	$68	$76	$72	$93	$85	$89	$89	$83	$91	$95	$102
Net profit	$3	$6	$8	$7	$12	$10	$11	$12	$9	$12	$12	$14

Preparing Financial Budgets (Cont.)

- ***Cash-flow budget***
  - ❖ The first step in the preparation of the cash-flow budget is the identification and timing of cash inflows, including (1) cash sales; (2) cash payments received on account; and (3) loan proceeds.

Table 11.9 North Central Scientific: Cash-Flow Budget												
North Central Scientific: Cash Receipts Worksheet for 2018												
	Jan.	**Feb.**	**Mar.**	**Apr.**	**May**	**June**	**July**	**Aug.**	**Sept.**	**Oct.**	**Nov.**	**Dec.**
Sales	$315	$388	$420	$394	$525	$473	$499	$504	$462	$515	$536	$578
Current month	$252	$294	$336	$315	$420	$378	$399	$403	$370	$412	$428	$462
Prior month	82	47	55	63	59	79	71	75	76	69	77	80
Two months back	26	28	16	18	21	19	26	24	24	25	24	26
Cash receipts	$360	$369	$407	$396	$500	$476	$496	$502	$470	$506	$529	$568
North Central Scientific: Cash Disbursements Worksheet for 2018												
	Jan.	**Feb.**	**Mar.**	**Apr.**	**May**	**June**	**July**	**Aug.**	**Sept.**	**Oct.**	**Nov.**	**Dec.**
Purchases	$263	$305	$331	$341	$410	$383	$400	$395	$380	$416	$437	$413
Current month	$197	$228	$248	$256	$307	$287	$300	$296	$285	$312	$328	$309
Prior month	98	66	76	83	85	102	96	100	99	95	104	109
Purchase payments	$295	$294	$324	$339	$392	$396	$396	$396	$384	$407	$432	$419
Operating expenses	$60	$68	$76	$72	$93	$85	$89	$89	$83	$91	$95	$102
Cash payments	$355	$362	$400	$412	$485	$481	$485	$485	$467	$498	$527	$521
North Central Scientific: Cash-Flow Worksheet for 2018												
	Jan.	**Feb.**	**Mar.**	**Apr.**	**May**	**June**	**July**	**Aug.**	**Sept.**	**Oct.**	**Nov.**	**Dec.**
Beginning cash	$122	$127	$134	$141	$127	$141	$143	$154	$170	$173	$181	$184
Add: Receipts	360	369	407	396	500	476	496	502	470	506	529	568
Cash available	$482	$496	$541	$537	$627	$617	$639	$656	$640	$679	$710	$752
Less: Payments	355	362	400	411	485	481	485	485	467	498	527	521
Ending cash	$127	$134	$141	$126	$142	$136	$154	$171	$173	$181	$183	$231

Pro Forma Statements

- The final step in the budget process is the preparation of pro forma statements, which are projections of a firm's financial position during a future period.

Table 11.10 North Central Scientific: Pro Forma Statements

North Central Scientific: Comparative Pro Forma Income Statements

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Sales	$315	$388	$420	$394	$525	$473	$499	$504	$462	$515	$536	$578
Cost of goods sold												
Beginning inventory	$63	$74	$84	$79	$105	$95	$100	$101	$92	$103	$107	$116
Purchases	263	305	331	341	410	383	400	395	380	416	437	413
Cost of goods available	$326	$379	$415	$420	$515	$478	$500	$496	$472	$519	$544	$529
Ending inventory	74	85	79	105	95	100	101	92	102	107	116	66
Cost of goods sold	$252	$294	$336	$315	$420	$378	$399	$403	$370	$412	$428	$462
Gross profit	$63	$74	$84	$79	$105	$95	$100	$101	$92	$103	$108	$116
Operating expenses												
Rent	$2	$2	$2	$2	$2	$2	$2	$2	$2	$2	$2	$2
Payroll	32	37	42	39	53	47	50	50	46	51	54	58
Utilities	5	5	5	5	5	5	5	5	5	5	5	5
Taxes	3	4	4	4	5	5	5	5	5	5	5	6
Supplies	16	18	21	20	26	24	25	25	23	26	27	29
Repairs	2	2	2	2	2	2	2	2	2	2	2	2
Total expenses	$60	$68	$76	$72	$93	$85	$89	$89	$83	$91	$95	$102
Net profit	$3	$6	$8	$7	$12	$10	$11	$12	$9	$12	$12	$14

North Central Scientific: Comparative Pro Forma Balance Sheet

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Assets												
Cash	$127	$134	$141	$126	$142	$136	$154	$171	$173	$181	$183	$231
Accounts receivable	91	89	102	100	125	121	123	126	117	126	133	142
Inventory	74	84	79	105	95	100	101	92	103	107	116	66
Prepaid rent	2	2	2	2	2	2	2	2	2	2	2	2
Building and equipment	350	350	350	350	350	350	350	350	350	350	350	350
Less: Accumulated depreciation	−350	−350	−350	−350	−350	−350	−350	−350	−350	−350	−350	−350
Total assets	$294	$309	$324	$333	$364	$359	$380	$391	$395	$416	$434	$441
Liabilities												
Accounts payable	$66	$76	$83	$85	$102	$96	$100	$99	$95	$104	$109	$103
Capital	228	234	242	249	261	270	280	292	300	312	326	339
Total liabilities and equity	$294	$310	$325	$334	$363	$366	$380	$391	$395	$416	$435	$442

Capital Budgeting

- Entrepreneurs may be required to make several investment decisions in the process of managing their firms.
- The first step in capital budgeting is to identify the cash flows and their timing.
- The inflows or returns, as they are commonly called, are equal to net operating income before deduction of payments to the financing sources but after the deduction of applicable taxes and with depreciation added back, as represented by the following formula.

$$\text{Expected Returns} = X(1 - T) + \text{Depreciation}$$

(X is equal to the net operating income; T is the appropriate tax rate)

Capital Budgeting (Cont.)

- Suppose that there are two mutually exclusive projects, both of which require ***an outlay of $1,000***. The problem is that it only chooses one effective project.

Table 11.11 North Central Scientific: Expected Return Worksheet					
			Proposal A		
Year	**X**	**(1-T)(T=0.4)**	**X(1-T)**	**Depreciation**	**X(1-T)+Depreciation**
1	$500	$0.60	$300	$200	$500
2	333	0.6	200	200	400
3	167	0.6	100	200	300
4	−300	0.6	−180	200	20
5	−317	0.6	−190	200	10
			Proposal B		
Year	**X**	**(1-T)(T=0.4)**	**X(1-T)**	**Depreciation**	**X(1-T)+Depreciation**
1	−$167	$0.60	−$100	$200	$100
2	0	0.6	0	200	200
3	167	0.6	100	200	300
4	333	0.6	200	200	400
5	500	0.6	300	200	500

- X = anticipated change in net income; Applicable tax rate (0.40).
- Depreciation = (computed on straight-line basic) ***Cost/life (1,000 / 5).***

Capital Budgeting (Cont.)

- The principal objective of capital budgeting is to maximize the value of the firm. It is designed to answer two basic questions:
  - ❖ Which of several mutually exclusive projects should be selected?
  - ❖ How many projects, in total, should be selected?
- The three most common methods used in capital budgeting are as follows:
  - ❖ The payback method.
  - ❖ The net present value (NPV) method.
  - ❖ The internal rate of return (IRR) method.

Capital Budgeting – Payback Method

Year	Proposal A	Proposal B
1	$500	$100
2	400	200
3	300	300
4	20	400
5	11	500

- Proposal A would pay back the investment in 28 months; $900 of the original investment will be paid back in the first two years, and the last $100 in the third year.
- Proposal B will require four years for its payback.

➔Choose Proposal A and reject Proposal B.

Capital Budgeting – Payback Method (Cont.)

- One of the problems with the payback method is that it ignores cash flows beyond the payback period. Thus, it is possible for the wrong decision to be made.
- Nevertheless, many companies, particularly entrepreneurial firms, continue to use this method for several reasons.

1. It is very simple to use in comparison to other methods.
2. Projects with a faster payback period normally have more favorable short-term effects on earnings.
3. if a firm is short on cash, it may prefer to use the payback method because it provides a faster return of funds.

Capital Budgeting – NPV Method

- The net present value (NPV) method is a technique that helps to minimize some of the shortcomings of the payback method by recognizing the future cash flows beyond the payback period.
  - ❖ The concept works on the premise that a dollar today is worth more than a dollar in the future with how much more depends on the applicable cost of capital for the firm.
  - ❖ The cost of capital is the rate used to adjust future cash flows to determine their value in present period terms.
  - ❖ This procedure is referred to as discounting the future cash flows, and the discounted cash value is determined by the present value of the cash flow.

Capital Budgeting – NPV Method (Cont.)

Proposal A			
Year	**Cash Flow**	**Discount Factor**	**Present Value**
1	$500	0.9091	$454.55
2	400	0.8264	330.56
3	300	0.7513	225.39
4	20	0.683	13.66
5	11	0.6209	6.21
			$1,030.37
Less: Initial outlay			−1,000.00
Net present value			$30.37
Proposal B			
Year	**Cash Flow**	**Discount Factor**	**Present Value**
1	$100	0.9091	$90.91
2	200	0.8264	165.28
3	300	0.7513	225.39
4	400	0.683	273.2
5	500	0.6209	311.45
			$1,065.23
Less: Initial outlay			−1,000.00
Net present value			$65.23

- Discount rate: 10%.
- NPV (A) < NPV (B).
- Choose Proposal B and reject Proposal A.

Capital Budgeting – IRR Method

- The internal rate of return (IRR) method is similar to the NPV method in that the future cash flows are discounted.

- They are discounted at a rate that makes the NPV of the project equal to zero. This rate is referred to as the internal rate of return (IRR) of the project.

- The project with the highest IRR is then selected.

Capital Budgeting – IRR Method (Cont.)

Proposal A (11.83% IRR)			
Year	Cash Flow	Discount Factor	Present Value
1	$500	0.8942	$447.11
2	400	0.7996	319.84
3	300	0.7151	214.53
4	20	0.6394	12.8
5	11	0.5718	5.73
			$1,000.00
Less: Initial outlay			−1,000.00
Net present value			$0.00
Proposal B (12.01% IRR)			
Year	**Cash Flow**	**Discount Factor**	**Present Value**
1	$100	0.8928	$89.27
2	200	0.7971	159.42
3	300	0.7117	213.51
4	400	0.6354	254.15
5	500	0.5673	283.65
			$1,000.00
Less: Initial outlay			−1,000.00
Net present value			$0.00

- IRR (A) < IRR (B).
- Choose Proposal B and reject Proposal A.

Break-Even Analysis

- Break-even analysis is a technique commonly used to assess expected product profitability.
- It helps determine how many units must be sold to break even at a particular selling price.

❖ ***Contribution Margin Approach***

- Contribution margin is the difference between the selling price and the variable cost per unit.
- It is the amount per unit that is contributed to covering all other costs.
- Because the break-even point occurs where ***income equals expenses***, the contribution margin approach formula is

$$0 = (SP - VC)\,S - FC \text{ or } FC = (SP - VC)S$$

where

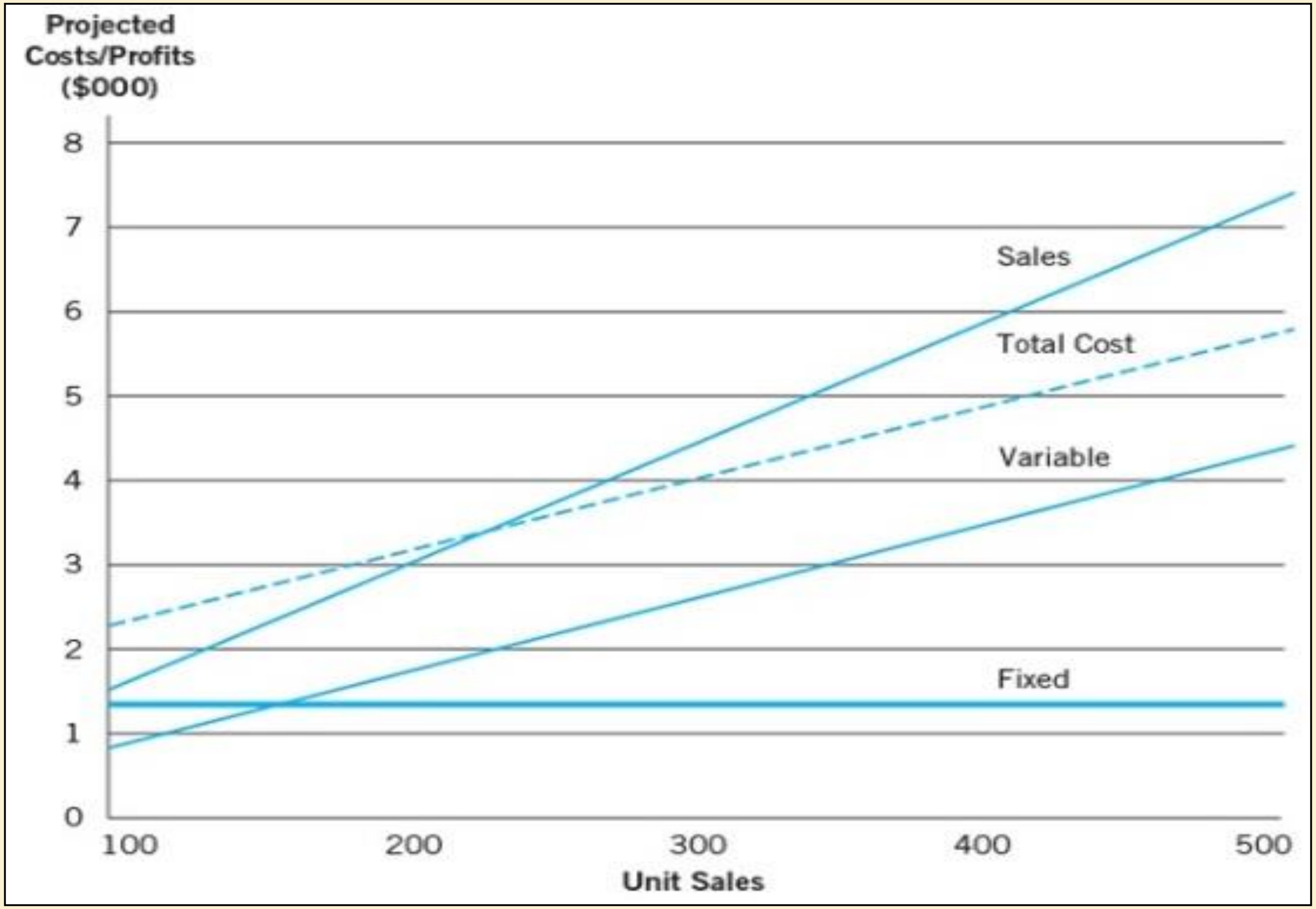
SP = Unit selling price
VC = Variable costs per unit
S = Sales in units
FC = Fixed cost

Break-Even Analysis (Cont.)

- ***Graphic Approach***
  - Another approach to break-even analysis taken by entrepreneurial firms is the graphic approach.
  - To use this approach, the entrepreneur needs to graph at least two numbers: total revenue and total costs.
  - The intersection of these two lines (i.e., where total revenues are equal to total costs) is the firm's break-even point.
  - Two additional costs, which are variable costs and fixed costs, also may be plotted. Doing so enables the entrepreneur to visualize the various relationships in the firm's cost structure.

Break-Even Analysis (Cont.)

- ***Graphic Approach***



Ratio Analysis

Table 11.12 Financial Ratios		
Balance Sheet Ratios		
Current	Current Assets / Current Liabilities	Measures solvency: the number of dollars in current assets for every \$1 in current liabilities. *Example* : A current ratio of 1.76 means that for every \$1 of current liabilities, the firm has \$1.76 in current assets with which to pay it.
Quick	(Cash + Accounts Receivable) / Current Liabilities	Measures liquidity: the number of dollars in cash and accounts receivable for each \$1 in current liabilities *Example* : A quick ratio of 1.14 means that for every \$1 of current liabilities, the firm has \$1.14 in cash and accounts receivable with which to pay it.
Cash	Cash Current / Liabilities	Measures liquidity more strictly: the number of dollars in cash for every \$1 in current liabilities *Example* : A cash ratio of 0.17 means that for every \$1 of current liabilities, the firm has \$0.17 in cash with which to pay it.
Debt-to-worth	Total Liabilities / Net Worth	Measures financial risk: the number of dollars of debt owed for every \$1 in net worth *Example* : A debt-to-worth ratio of 1.05 means that for every \$1 of net worth the owners have invested, the firm owes \$1.05 of debt to its creditors.
Income Statement Ratios		
Gross margin	Gross Margin / Sales	Measures profitability at the gross profit level: the number of dollars of gross margin produced for every \$1 of sales *Example* : A gross margin ratio of 34.4% means that for every \$1 of sales, the firm produces 34.4¢ of gross margin.
Net margin	Net Profit before Tax / Sales	Measures profitability at the net profit level: the number of dollars of net profit produced for every \$1 of sales *Example* : A net margin ratio of 2.9% means that for every \$1 of sales, the firm produces 2.9¢ of net margin.

Ratio Analysis (Cont.)

Table 11.12 Financial Ratios		
Overall Efficiency Ratios		
Sales-to-assets	Sales / Total Assets	Measures the efficiency of total assets in generating sales: the number of dollars in sales produced for every $1 invested in total assets *Example* : A sales-to-assets ratio of 2.35 means that for every $1 invested in total assets, the firm generates $2.35 in sales.
Return on assets	Net Profit before Tax / Total Assets	Measures the efficiency of total assets in generating net profit: the number of dollars in net profit produced for every $1 invested in total assets *Example* : A return on assets ratio of 7.1% means that for every $1 invested in assets, the firm is generating 7.1¢ in net profit before tax.
Return on investment	Net Profit before Tax / Net Worth	Measures the efficiency of net worth in generating net profit: the number of dollars in net profit produced for every $1 invested in net worth *Example* : A return on investment ratio of 16.1% means that for every $1 invested in net worth, the firm is generating 16.1¢ in net profit before tax.

Ratio Analysis (Cont.)

Table 11.12 Financial Ratios		
Specific Efficiency Ratios		
Inventory turnover	Cost of Goods Sold / Inventory	Measures the rate at which inventory is being used on an annual basis *Example* : An inventory turnover ratio of 9.81 means that the average dollar volume of inventory is used up almost ten times during the fiscal year.
Inventory turn-days	360 / Inventory Turnover	Converts the inventory turnover ratio into an average "days inventory on hand" figure *Example* : An inventory turn-days ratio of 37 means that the firm keeps an average of 37 days of inventory on hand throughout the year.
Accounts receivable turnover	Sales / Accounts Receivable	Measures the rate at which accounts receivable are being collected on an annual basis *Example* : An accounts receivable turnover ratio of 8.00 means that the average dollar volume of accounts receivable is collected eight times during the year.
Average collection period	360 / Accounts Receivable Turnover	Converts the accounts receivable turnover ratio into the average number of days the firm must wait for its accounts receivable to be paid *Example* : An average collection period ratio of 45 means that it takes the firm 45 days on average to collect its receivables.
Accounts payable turnover	Cost of Goods Sold / Accounts Payable	Measures the rate at which accounts payable are being paid on an annual basis *Example* : An accounts payable turnover ratio of 12.04 means that the average dollar volume of accounts payable is paid about 12 times during the year.
Average payment period	360 / Accounts Payable Turnover	Converts the accounts payable turnover ratio into the average number of days a firm takes to pay its accounts payable *Example* : An accounts payable turnover ratio of 30 means that it takes the firm 30 days on average to pay its bills.

3. Assessment of entrepreneurial ventures

Assessment of entrepreneurial ventures

1. Financial Product-Market Fit

❖ Does the target user want your product?

2. Potential market

❖ Do many people want your product?

3. Why is it now?

❖ What has changed that makes your product relevant now?

4. Distribution channels

❖ Can you help users find your products effectively?

Assessment of entrepreneurial ventures (Cont.)

5. Team

❖ Is this really the best team to build this product?

6. Competitive advantage

❖ Can you become number one?

7. Business model

❖ Will it help your startup move quickly and grow effectively and sustainably?

In conclusion

- Sources of capital for entrepreneurial ventures.
- Financial preparation for entrepreneurial ventures.
- Assessment of entrepreneurial ventures.

THANK YOU
FOR YOUR ATTENTION

Q&A