

Financial statement analysis, valuation, and corporate development

HARRT Executive Program



- **Enable human resources professionals to become more conversant in the areas of financial and strategic performance**
- Build confidence in reading and understanding the balance sheet, income statement, and cash flow statement
- See how financial statements are linked to the operating activities of a company
- Learn how to develop and evaluate pro forma (projected) financials
- Understand valuation techniques and methods by which value is built within an organization
- Appreciate the vital role that integration strategy plays in capturing value in corporate development activities such as acquisitions or partnerships

- Communicating information about the company to interested parties such as investors and other parties inside and outside of the venture
- Presenting the financial results of a venture's activities in a meaningful way
- The numbers and the narrative

Box Scores

Team	1 2 3	4 5 6	7 8 9	R H E
San Francisco Giants	0 0 0	0 0 0	3 0 0	3 7 0
Texas Rangers	0 0 0	0 0 0	1 0 0	1 3 1

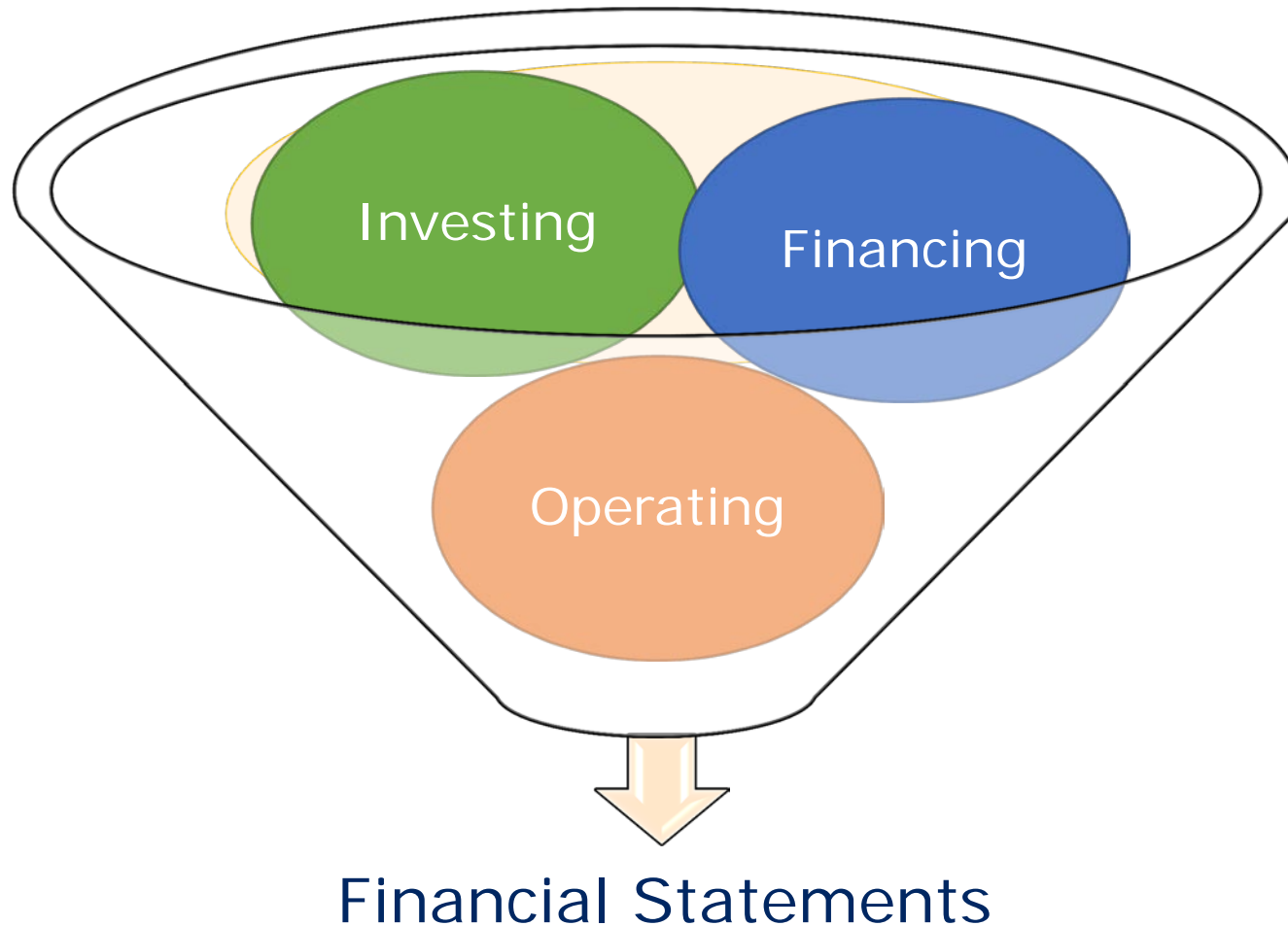
Giants

NAME	ab	r	h	rbi
Torres rf	4	0	1	0
Sanchez 2b	4	0	1	0
Posey c	4	0	2	0
Ross lf	4	1	1	0
Uribe 3b	4	1	1	0
Huff 1b	3	0	0	0
Burrell dh	4	0	0	0
Renteria ss	3	1	1	3
Rowand cf	3	0	0	0
Total	33	3	7	3

Rangers

NAME	ab	r	h	rbi
Andrus ss	4	0	0	0
Young 3b	4	0	1	0
Hamilton cf	4	0	0	0
Guerrero dh	4	0	0	0
Cruz rf	4	1	1	1
Kinsler 2b	2	0	0	0
Murphy lf	3	0	0	0
Molina c	3	0	0	0
Moreland 1b	2	0	1	0
Total	30	1	3	1

Three major domains relating to financial statements:



Ventures obtain funds from two primary sources:

- Owners
 - Provide funds in return for evidence of ownership (stock)
 - Not repaid at a particular date
 - May receive dividends
- Creditors
 - Provide funds under agreement (accounts payable, line of credit, note ...)
 - Funds repaid with interest at specified dates



Investing funds involves the acquisition of items necessary to carry out the company's business activities:

- Land, buildings and equipment
- Patents and licenses
- Inventories
- Accounts Receivable
- Cash

Prime directive for an organizational investing portfolio:

Return on investments > Cost of financing

- Operating activities within the company are those necessary to produce a product or provide a service that in turn generates revenue
- Various areas within a company typically work together to carry out operations
 - Purchasing
 - Production
 - Marketing
 - Administration

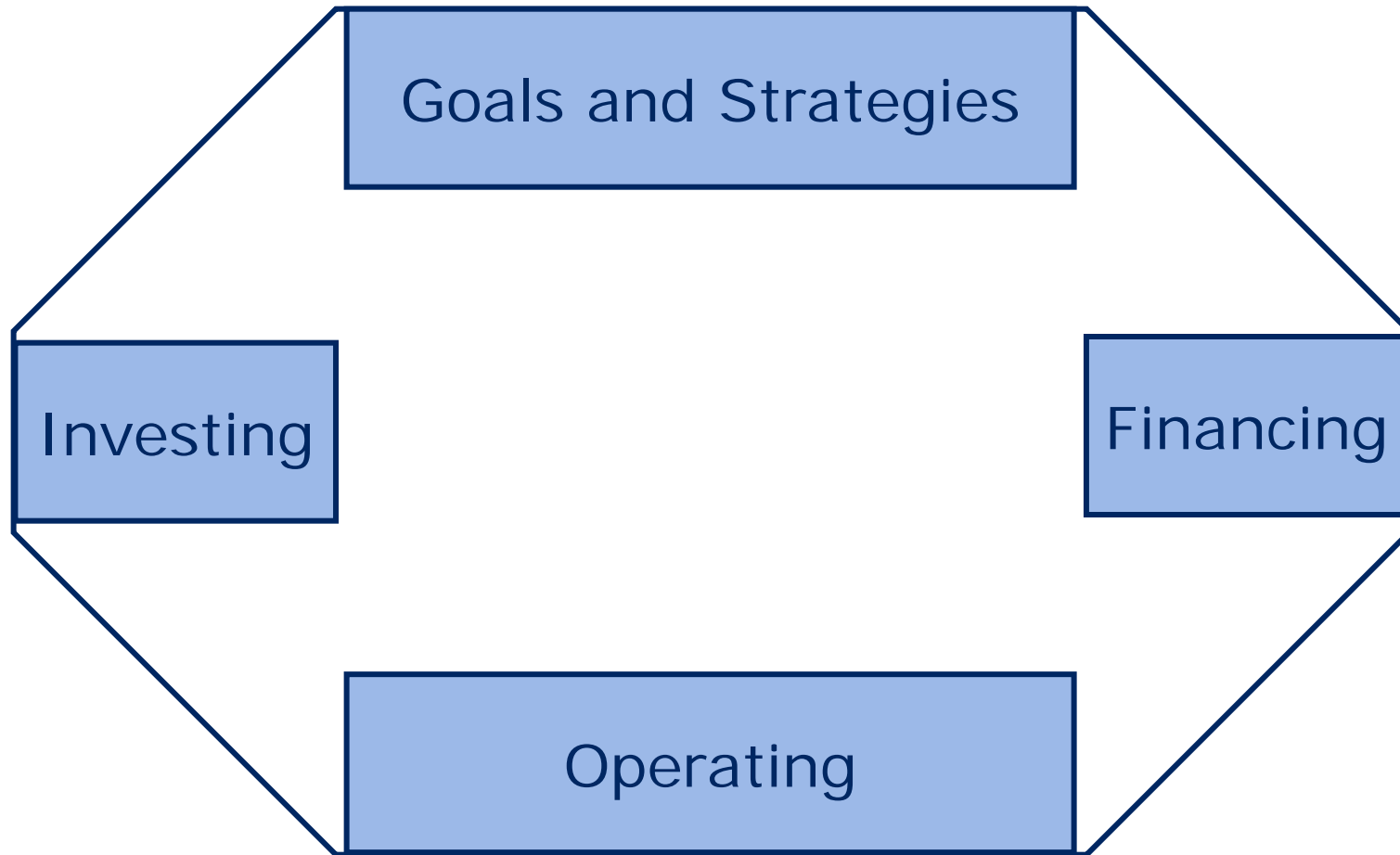
- Financial statements are a form of communication
- Financial statements address three major domains:
 - Financing
 - Investing
 - Operating

Business Activities and Financial Statements

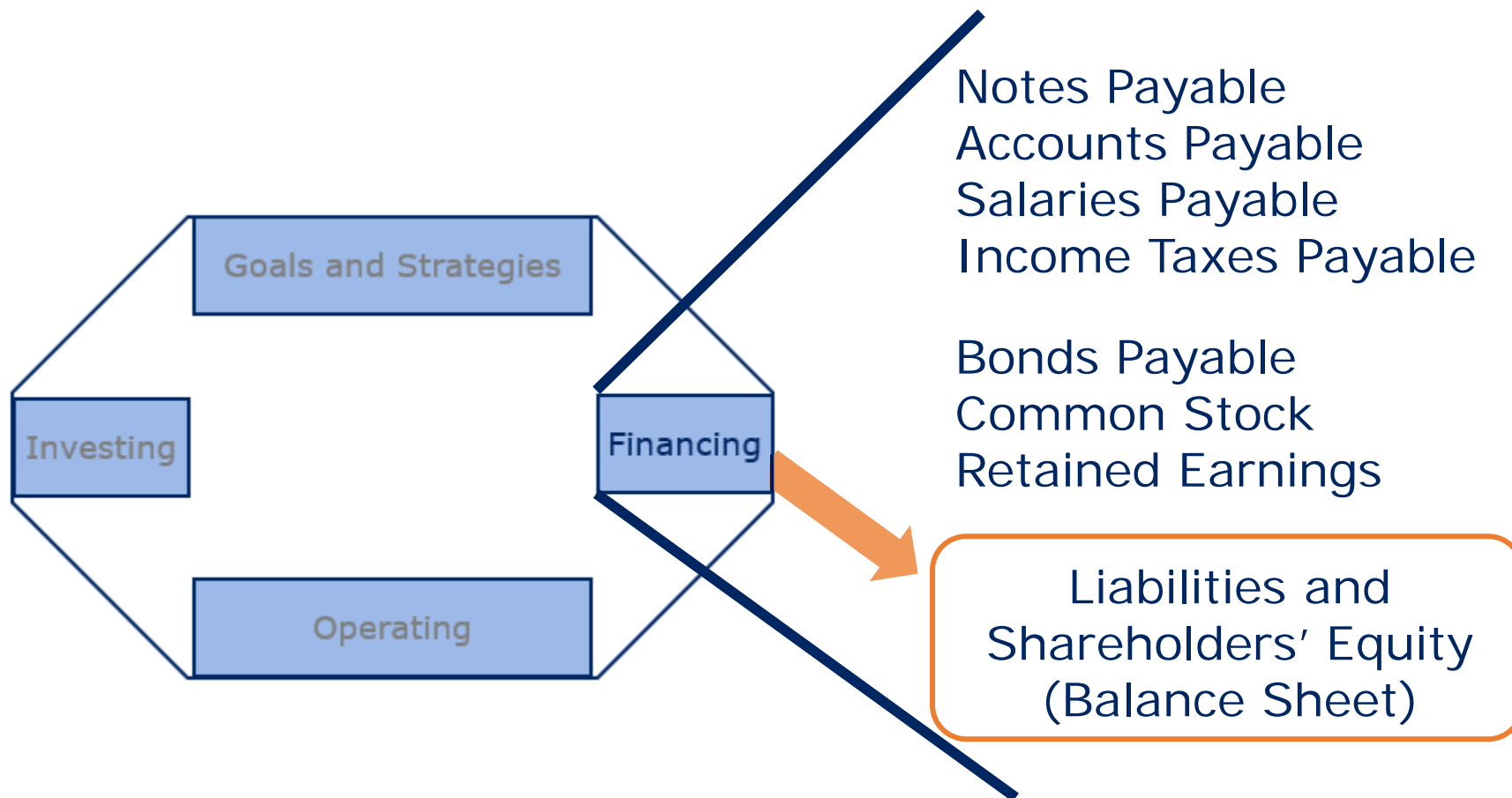


- The principal financial statements work together to communicate the various business activities of the organization
- There is a logical relationship between business activities and financial statements

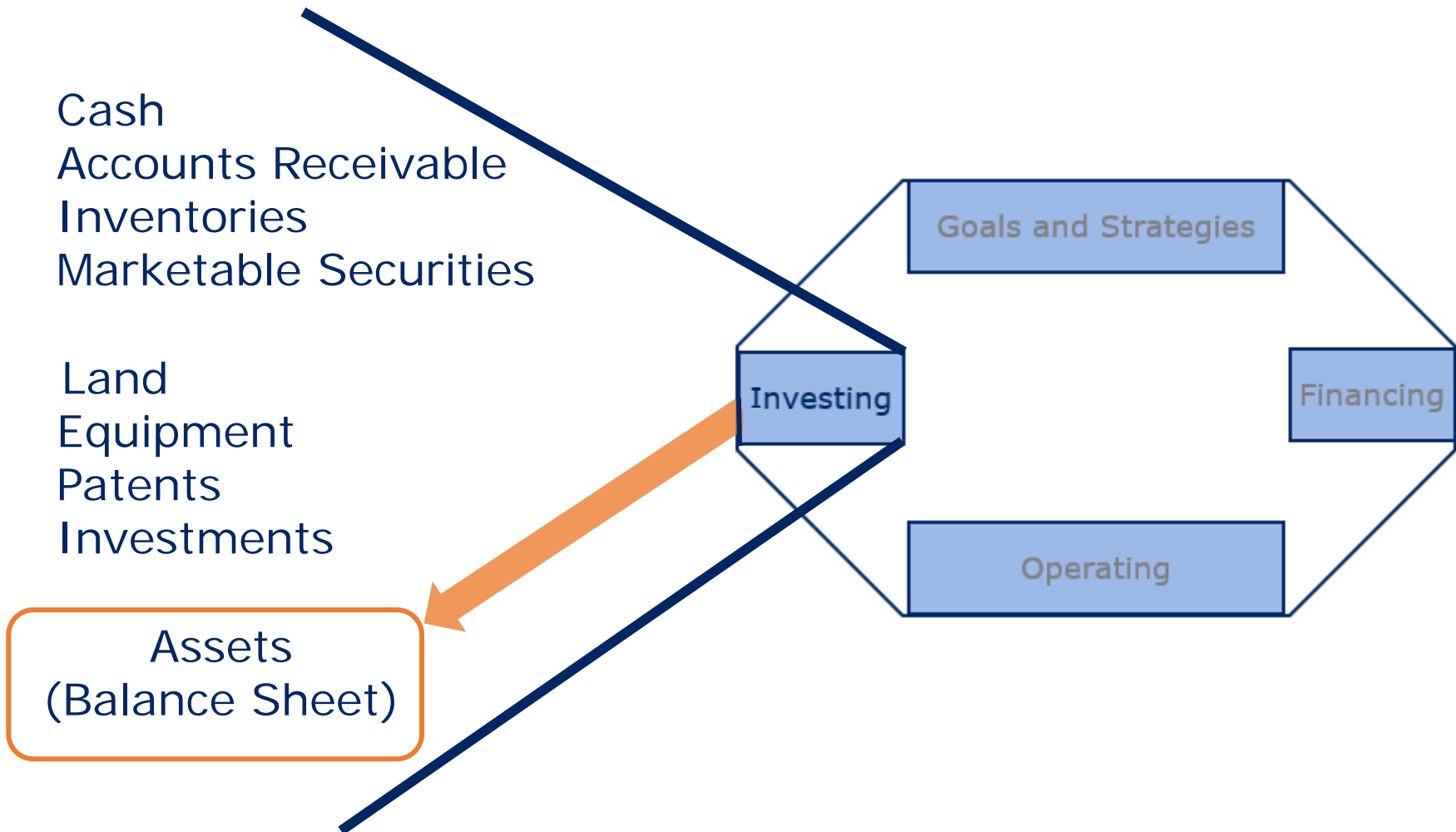
Relationship: Venture Activities and Financial Statements



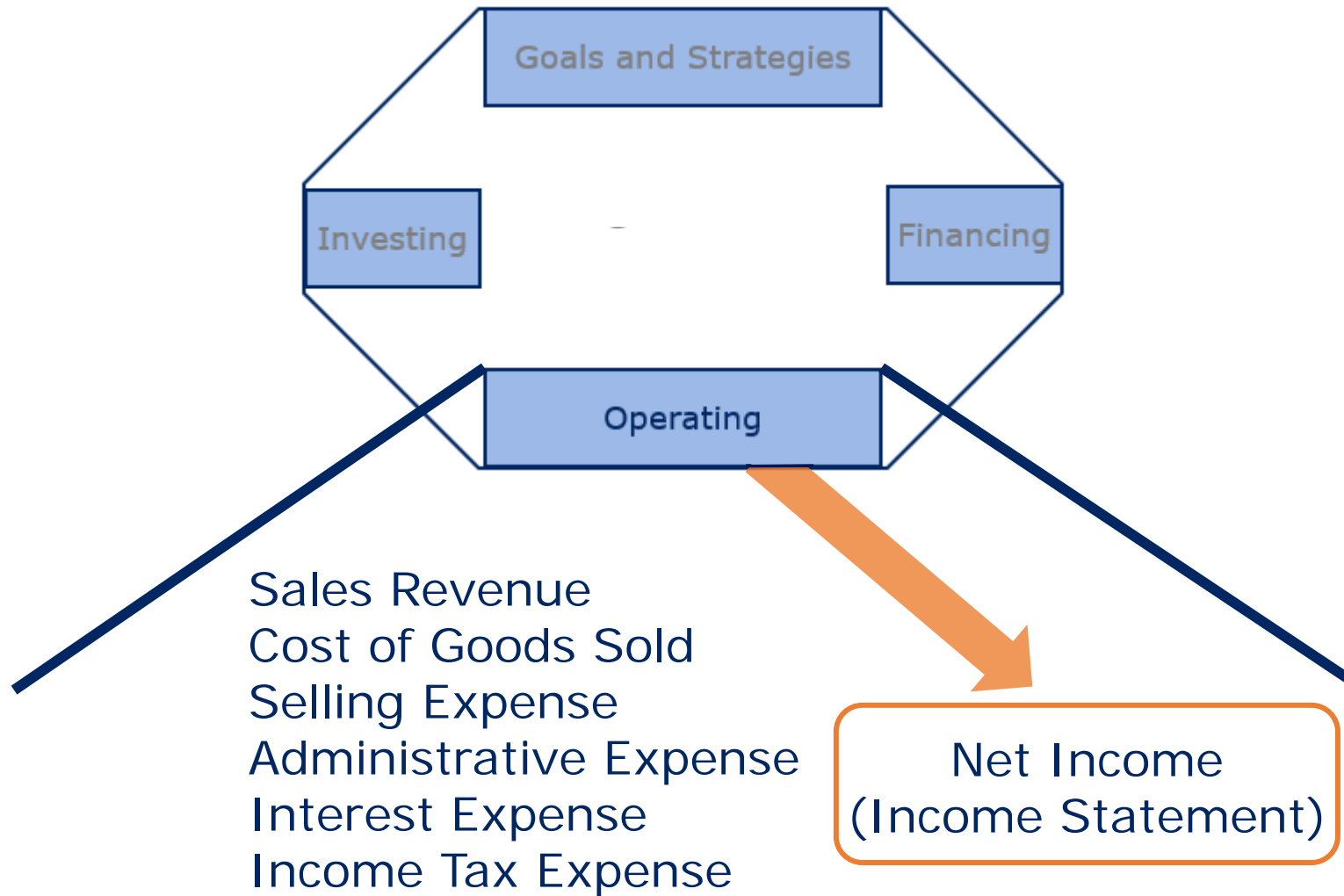
Relationship: Venture Activities and Financial Statements



Relationship: Venture Activities and Financial Statements



Relationship: Venture Activities and Financial Statements



- The financing domain produces: Liabilities and Shareholders' Equity (Balance Sheet)
- The investing domain produces: Assets (Balance Sheet)
- The operating domain produces: Net Income (Income Statement)

The Balance Sheet: Assets



Presents the investing and financing activities of a company as of a moment in time; for example:

- As of December 31, 2015
- As of December 31, 2016



Assets = Liabilities Plus Shareholders Equity

- Investing equals financing

Classifies assets and liabilities as being either current or noncurrent

The Balance Sheet: Rear-View Mirror



Example: George S. Geis, 2000

6/30/2000

ASSETS	
Cash	\$ 1500
Golf Clubs	300
Clothing	400
Total Assets	2200
LIABILITIES and NET WORTH	
Government Loan	\$ 110000
Net Worth	-107800
Total Liabilities and Net Worth	2200



Sample Balance Sheet: Assets



June 30, 2014

(in Millions)



Assets	2014	2013
Current assets		
Cash and cash equivalents ★	\$ 8,669	\$ 3,804
Short-term investments (including securities loaned of \$541 and \$579)	77,040	73,218
Total cash, cash equivalents, and short-term investments	85,709	77,022
Accounts receivable, net of allowance for doubtful accounts of \$301 and \$336 ★	19,544	17,486
Inventories	2,660	1,938
Deferred income taxes	1,941	1,632
Other	4,392	3,388
Total current assets	114,246	101,466

Sample Balance Sheet: Assets



June 30, 2014

(in Millions)

	2014	2013
Property and equipment, net of accumulated depreciation of \$14,793 and \$12,513 	13,011	9,991
Equity and other investments	14,597	10,844
Goodwill 	20,127	14,655
Intangible assets, net	6,981	3,083
Other long-term assets	3,422	2,392
Total assets	172,384	142,431

- The balance sheet shows a moment in time as if “seen in the rear-view mirror”
- Assets = Investing

The Balance Sheet: Liabilities and Shareholders' Equity



Sample Balance Sheet: Liabilities and Shareholders' Equity



June 30, 2014

(in Millions)

Liabilities and Stockholders' Equity	2014	2013
Current liabilities		
Accounts payable ★	\$ 7,432	\$ 4,828
Short-term debt	2,000	0
Current portion of long-term debt	0	2,999
Accrued compensation ★	4,797	4,117
Income taxes	782	592
Short-term unearned revenue ★	23,150	20,639
Securities lending payable	558	645
Other	6,906	3,597
Total current liabilities	45,625	37,417

Sample Balance Sheet: Liabilities and Shareholders' Equity



June 30, 2014

(in Millions)

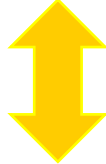

Liabilities and Stockholders' Equity	2014	2013
Long-term debt ★	\$ 20,645	\$ 12,601
Long-term unearned revenue	2,008	1,760
Deferred income taxes	2,728	1,709
Other long-term liabilities	11,594	10,000
Total liabilities	82,600	63,487
Commitments and Contingencies		
Stockholders' equity		
Common stock and paid-in capital – shares authorized 24,000; outstanding 8,239 & 8,328	68,366	67,306
Retained earnings	17,710	9,895
Accumulated other comprehensive income	3,708	1,743
Total stockholders' equity ★	89,784	78,944
Total liabilities and stockholders' equity	172,384	142,431

Sample Balance Sheet: Balanced!



June 30, 2014

(in Millions)

Total assets	172,384	142,431
		
Total liabilities and stockholders' equity	172,384	142,431

- $\text{Assets} = \text{Liabilities Plus Shareholders' Equity}$, or
- $\text{Investing} = \text{Financing}$
- This equality is “the balance”

The Income Statement



The Income Statement

JANUARY 2014							FEBRUARY 2014							MARCH 2014						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29	30	31									
MAY 2014							JUNE 2014							JULY 2014						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27	28	29	30	31								
SEPTEMBER 2014							OCTOBER 2014							NOVEMBER 2014						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30							
APRIL 2014							AUGUST 2014							DECEMBER 2014						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					

Depicts the results of the operating activities of a company for a period of time; for example, from January 1 to December 31, 2015

- Revenue minus expenses = net profit
- Measures how successful a company was in achieving its profitability goal for a given time period

The Income Statement: Another Rear-View Mirror

UCLAAnderson
EXECUTIVE EDUCATION



Sample Income Statement



June 30, 2014

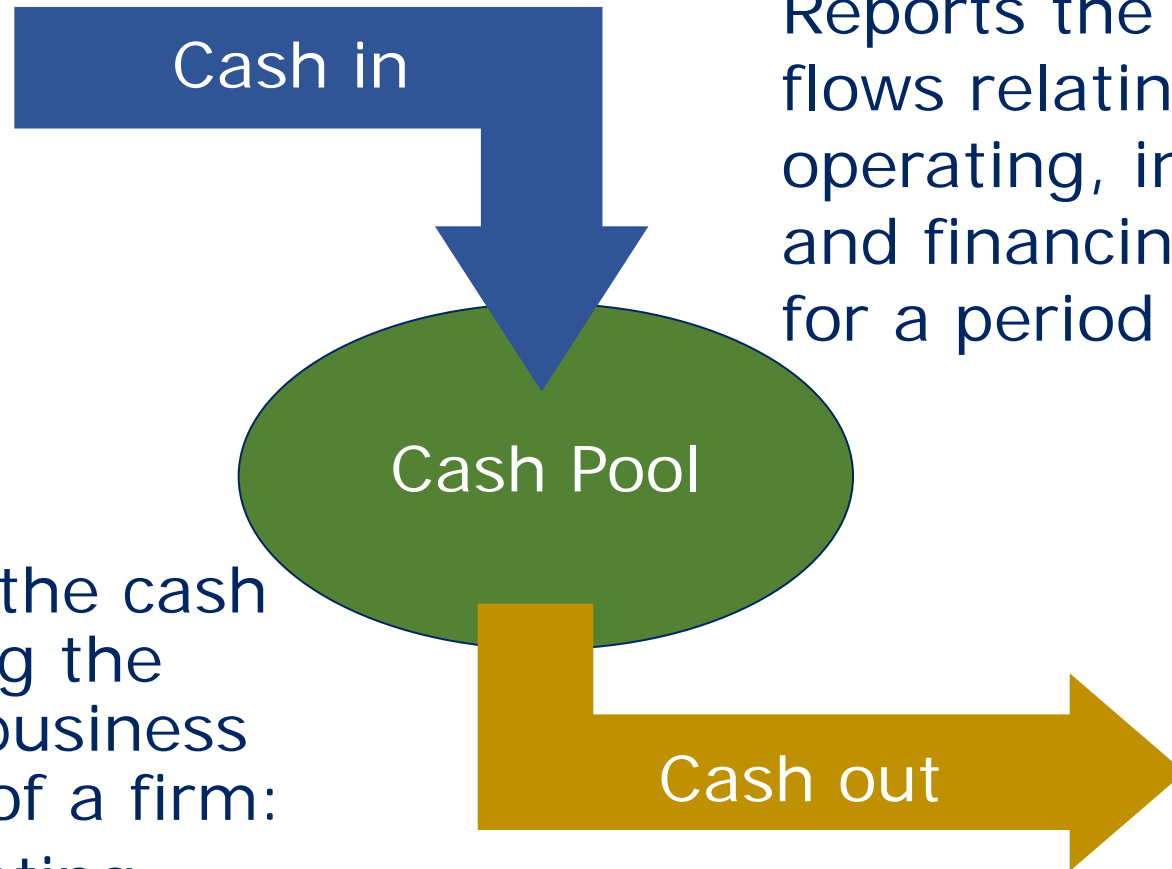
(in Millions)

	2014	2013	2012
Revenue	\$ 86,833	\$ 77,849	\$ 73,723
Cost of revenue	26,934	20,249	17,530
Gross margin ★	59,899	57,600	56,193
Research and development	11,381	10,411	9,811
Sales and marketing	15,811	15,276	13,857
General and administrative	4,821	5,149	4,569
Goodwill impairment	0	0	6,193
Integration and restructuring	127	0	0
Operating income ★	27,759	26,764	21,763
Other income, net	61	288	504
Income before income taxes	27,820	27,052	22,267
Provision for income taxes	5,746	5,189	5,289
Net income ★	22,074	21,863	16,978

- The income statement shows results over a period of time
- Demonstrates level of financial success over that period
- Revenue minus expenses = net profit

Statement of Cash Flows





Reports the net cash flows relating to operating, investing and financing activities for a period of time

Classifies the cash flows using the principal business activities of a firm:

- Operating
- Financing
- Investing

When cash receipts (Revenues)
exceed cash expenditures (Expenses)

Operating

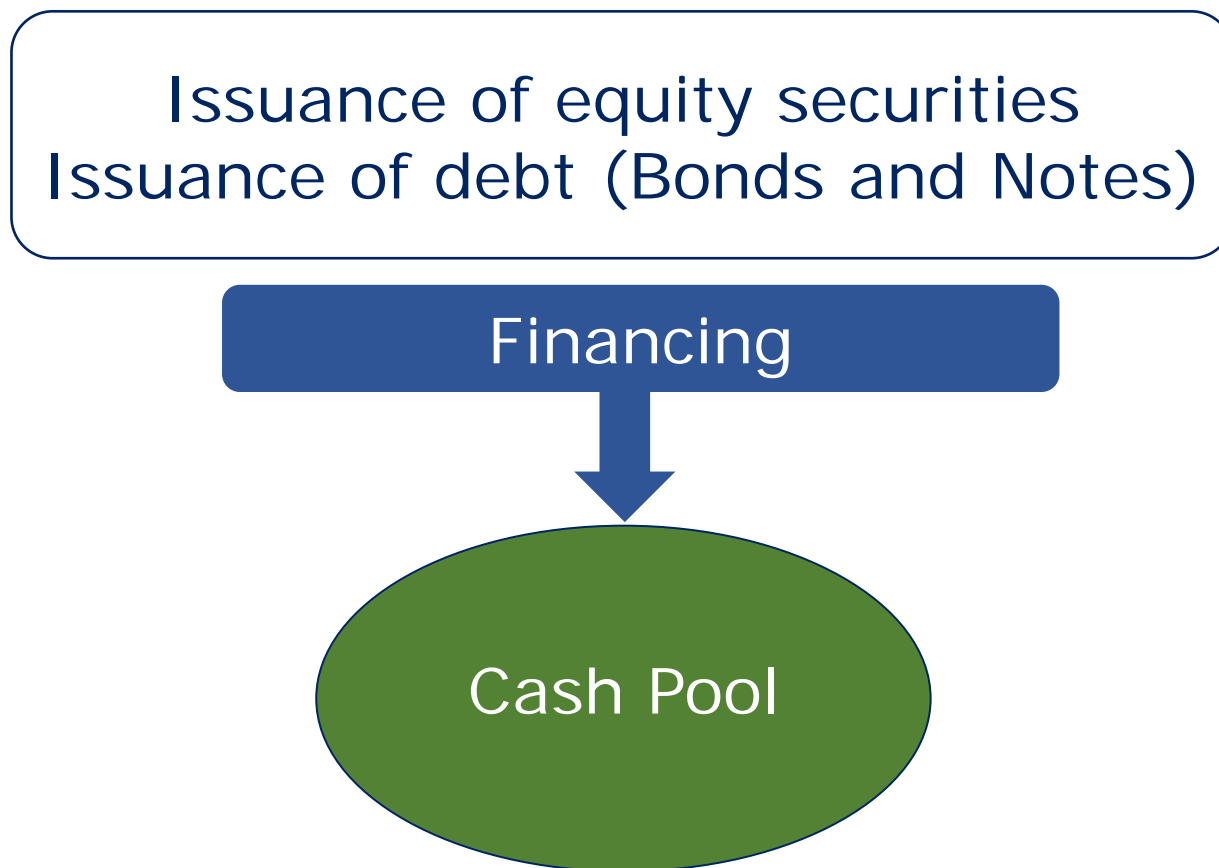
Cash Pool

```
graph TD; A[Operating] --> B((Cash Pool));
```

Issuance of equity securities
Issuance of debt (Bonds and Notes)

Financing

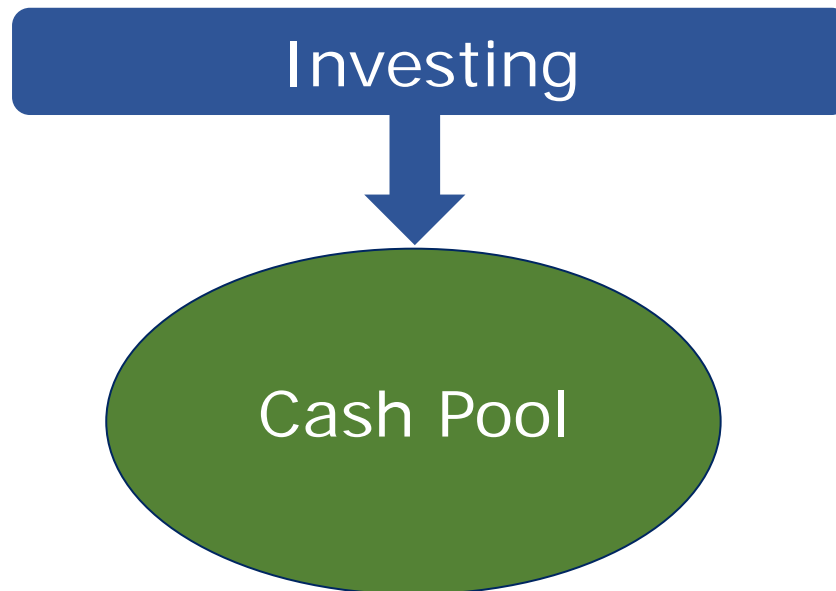
Cash Pool

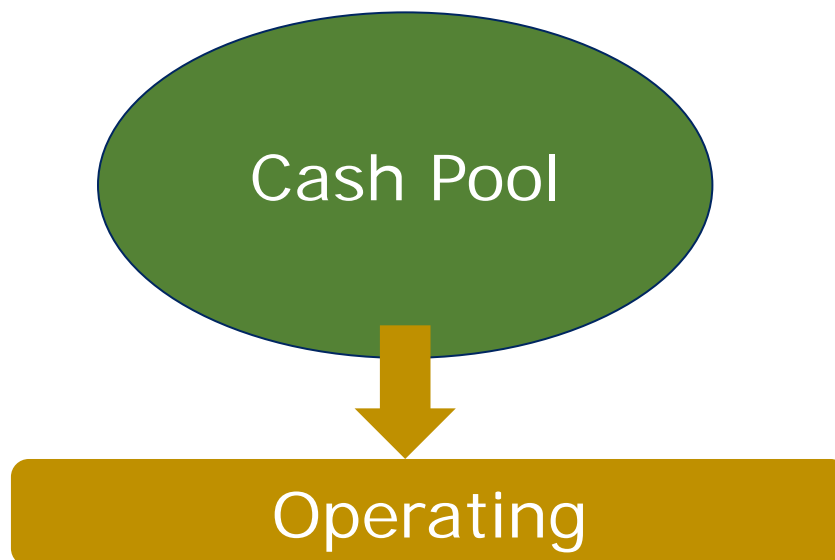


Sale of property and equipment
Sale of debt or equity securities
Collection of loans

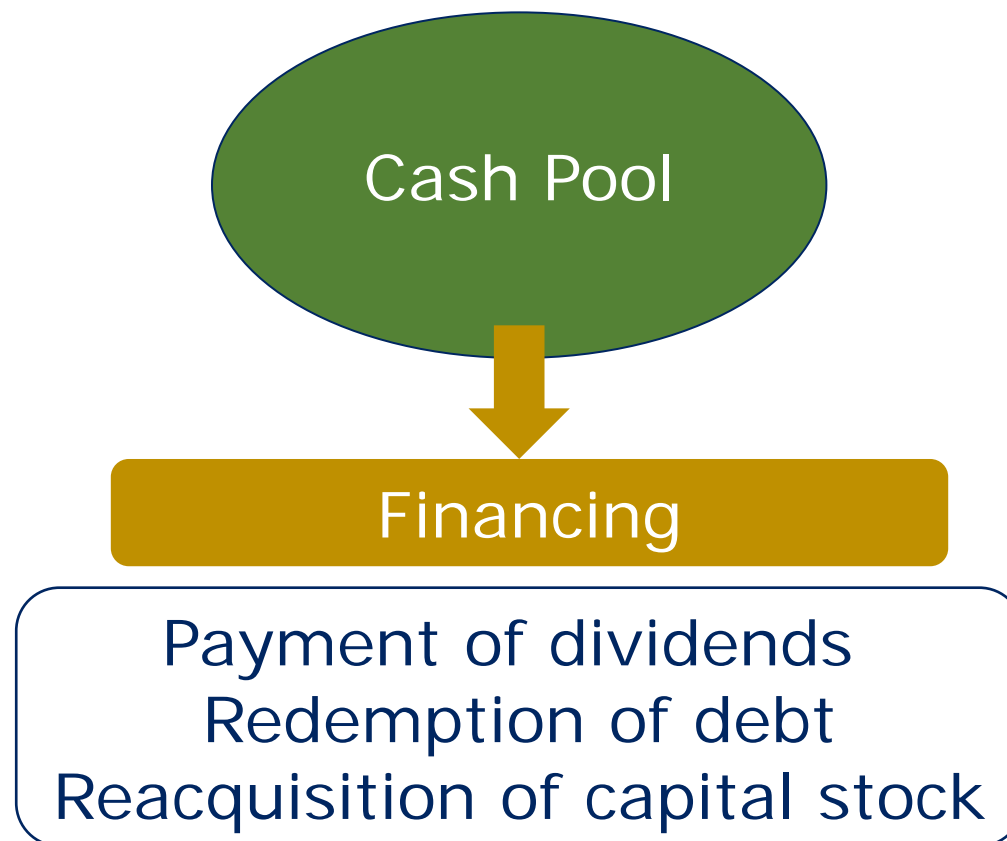
Investing

Cash Pool





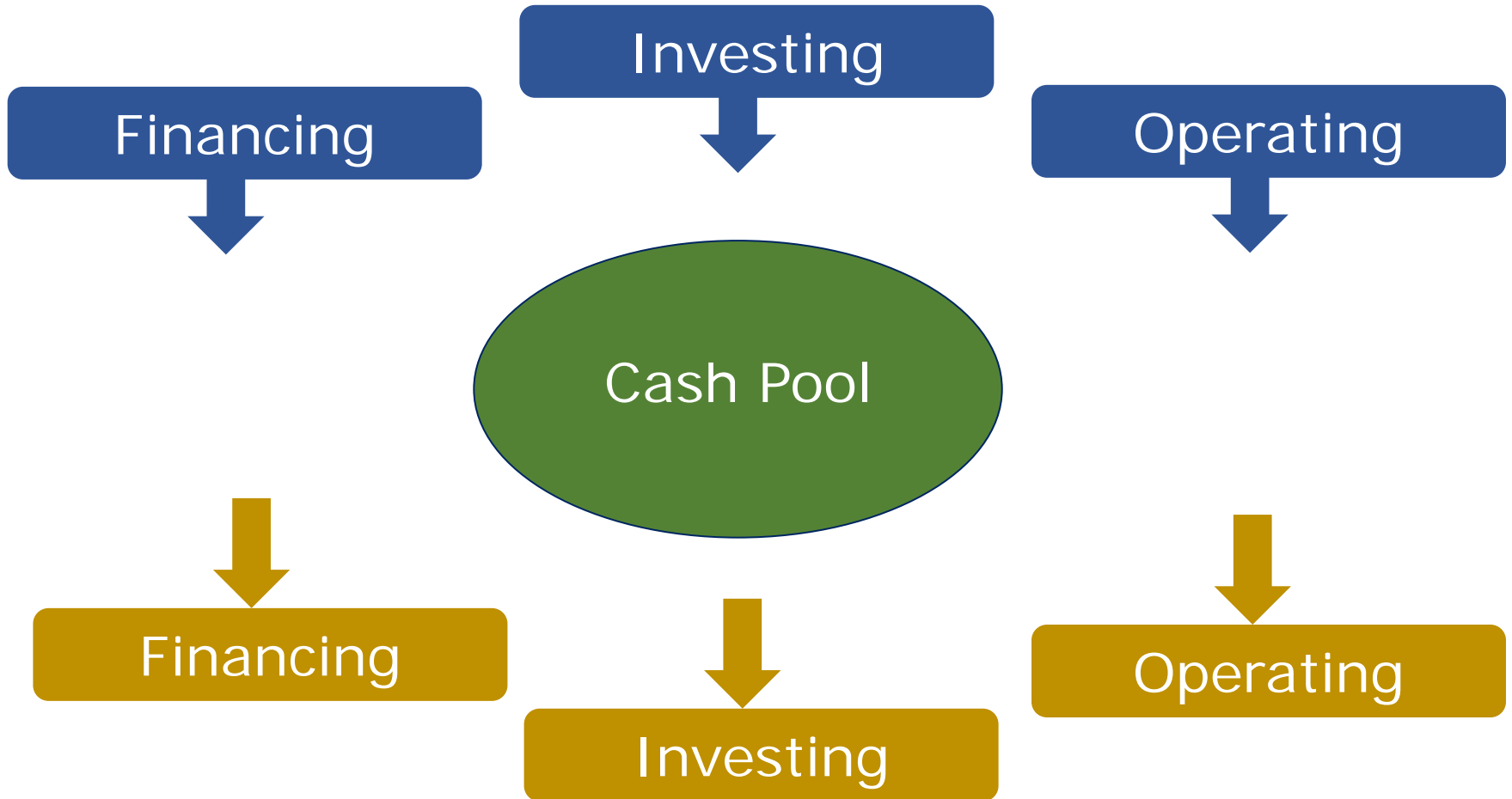
When cash expenditures (Expenses)
exceed cash receipts (Revenues)





- Purchase of property, plant, equipment
- Purchase of debt and equity security
- Loans to other entities

The Cash Vault: Cash Out



Sample Cash Flows Statements



June 30, 2014

(in Millions)


Operations	2014	2013	2012
Net income	\$ 22,074	\$ 21,863	\$ 16,978
Adjustments to reconcile net income to net cash from operations:			
Goodwill impairment	0	0	6,193
Depreciation, amortization, and other	5,212	3,755	2,967
Stock-based compensation expense	2,446	2,406	2,244
Net recognized losses (gains) on investments and derivatives	(109)	80	(200)
Excess tax benefits from stock-based compensation	(271)	(209)	(93)
Deferred income taxes	(331)	(19)	954

Sample Cash Flows Statements



June 30, 2014

(in Millions)


	2014	2013	2012
Deferral of unearned revenue	\$ 44,325	\$ 44,253	\$ 36,104
Recognition of unearned revenue	(41,739)	(41,921)	(33,347)
Changes in operating assets and liabilities:			
Accounts receivable	(1,120)	(1,807)	(1,156)
Inventories	(161)	(802)	184
Other current assets	(29)	(129)	493
Other long-term assets	(628)	(478)	(248)
Accounts payable	473	537	(31)
Other current liabilities	1,075	146	410
Other long-term liabilities	1,014	1,158	174
Net cash from operations 	32,231	28,833	31,626

Sample Cash Flows Statements



June 30, 2014

(in Millions)


Financing	2014	2013	2012
Proceeds from issuance of short-term debt, maturities of 90 days or less, net	\$ 500	\$ 0	\$ 0
Proceeds from issuance of debt	10,350	4,883	0
Repayments of debt	(3,888)	(1,346)	0
Common stock issued	607	931	1,913
Common stock repurchased	(7,316)	(5,360)	(5,029)
Common stock cash dividends paid	(8,879)	(7,455)	(6,385)
Excess tax benefits from stock-based compensation	271	209	93
Other	(39)	(10)	0
Net cash used in financing 	(8,394)	(8,148)	(9,408)

Sample Cash Flows Statements



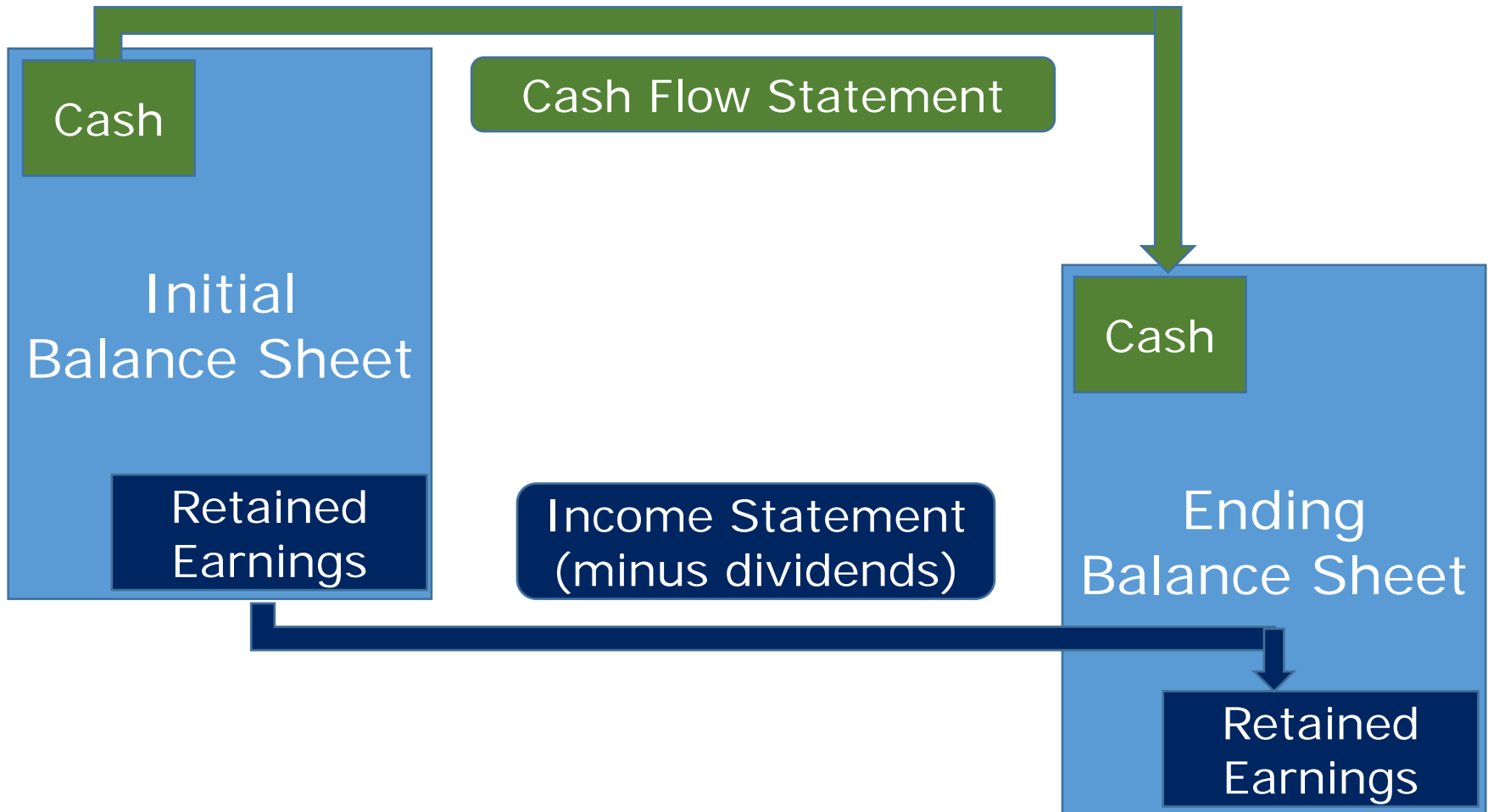
June 30, 2014

(in Millions)

Investing	2014	2013	2012
Additions to property and equipment	\$ (5,485)	\$ (4,257)	\$ (2,305)
Acquisition of companies and purchases of intangible and other assets	(5,937)	(1,584)	(10,112)
Purchases of investments	(72,690)	(75,396)	(57,250)
Maturities of investments	5,272	5,130	15,575
Sales of investments	60,094	52,464	29,700
Securities lending payable	(87)	(168)	(394)
Net cash used in investing 	(18,833)	(23,811)	(24,786)
Effect of exchange rates on cash and cash equivalents	(139)	(8)	(104)
Net change in cash/cash equivalents	4,865	(3,134)	(2,672)
Cash/cash equivalents, period bgnng	3,804	6,938	9,610
Cash/cash equivalents, period end	8,669	3,804	6938

- The income statement links the beginning balance sheet with the ending via retained earnings
- The statement of cash flows explains in detail what caused changes in the cash account on the beginning and ending balance sheets

Linking the Financials



- Analyzing historical financials is like looking through a rear-view mirror
- Pro forma financial projections look forward



How to develop pro forma financials
is our next topic

- Statement of cash flows covers a period of time, showing in detail changes from beginning of period to end
- Statement of cash flows tracks cash coming in and going out of the company
- Statement of cash flows is categorized by financing, investing, and operating domains
- The beginning and ending balance sheets are linked by way of the income statement (retained earnings) and the statement of cash flows (cash)

The Case of the Venture & the Contract

An entrepreneur enters a long-term fixed price contract with a government agency on January 1, 2014. The terms of the contract call for payment according to the following schedule. The estimated costs of performing the contract are also shown.

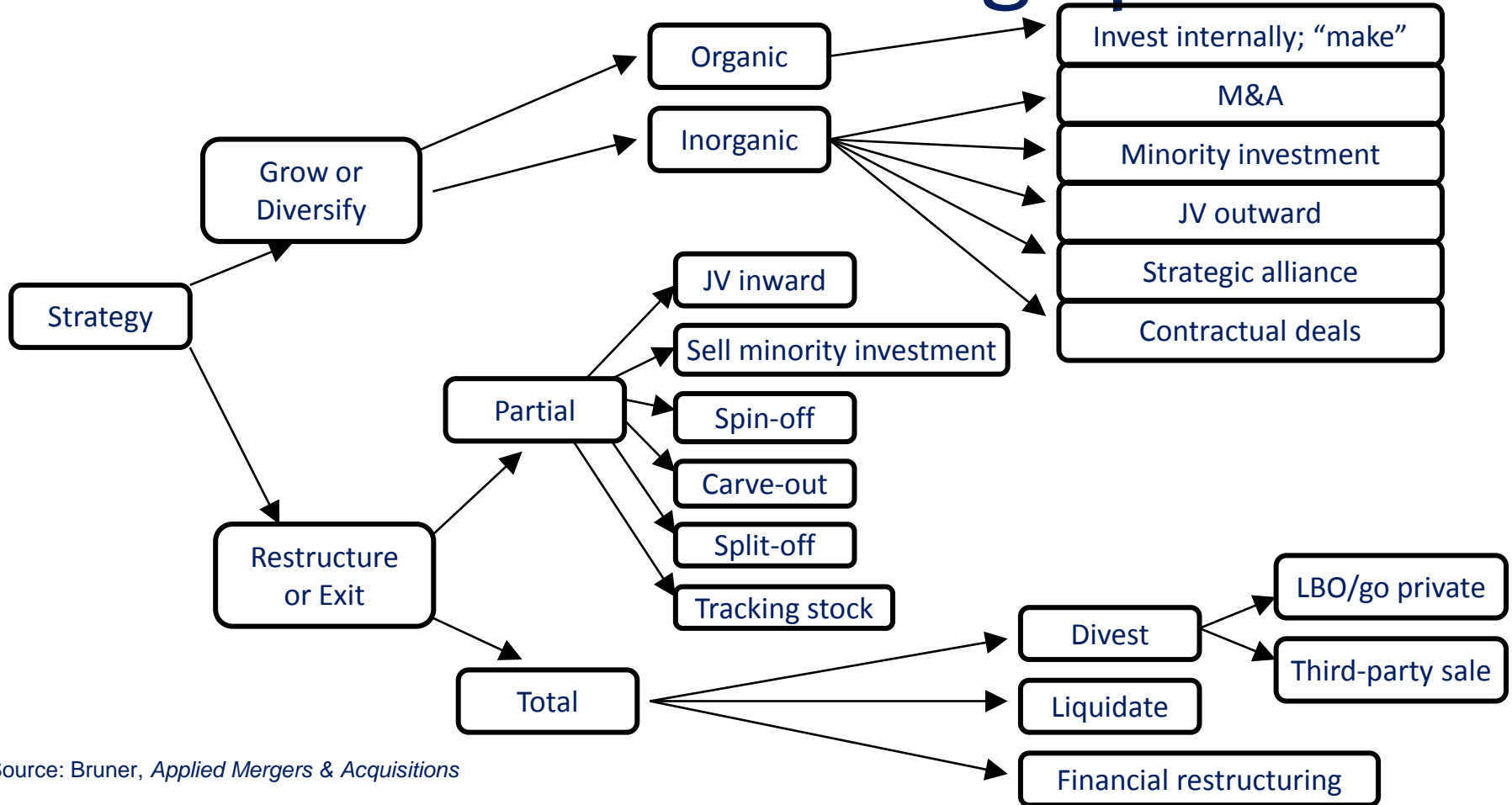
		2014	2015	2016	2017	2018	Total
Billing	\$	140	80	80	50	50	400
Receipts	\$	70	110	80	65	75	400
Direct Costs	\$	50	80	40	30	40	240

The first year payment of \$70 is paid in two installments: \$40 at the point the contract is signed and \$30 at the end of 2014. All other cash receipts and cash payments are presumed to happen evenly during the respective year. In addition to the above, the contractor must purchase \$100 of special purpose equipment at the start of 2014. It will be worth only scrap value at the end of the contract in 2018. The corporate tax rate is 40%, and the firm requires a 15% rate of return on such contracts. Assume that the contractor has cash of \$100 and capital of \$100 before entering into this contract.

Required

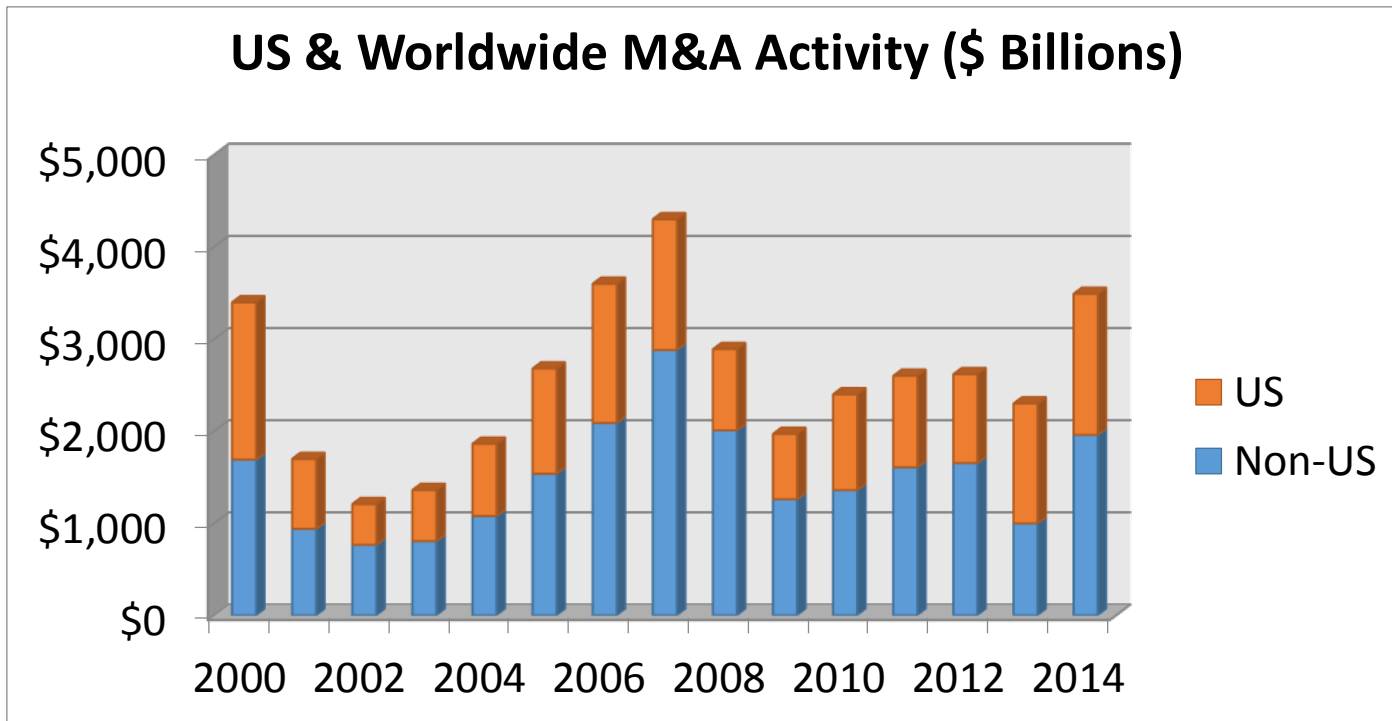
1. How much will this contract be worth to the company at the point it is signed?
2. How much profit will the company make...
 - a. Over a life of the contract?
 - b. In each of the five years?
3. What is the rate of return earned on this contract?
4. Based on your analysis of the project returns, what one recommendation would you make to the entrepreneur?

Growth & restructuring options



Source: Bruner, *Applied Mergers & Acquisitions*

M&A Activity



Recent sample deals/trends

- Google → Nest
- Disney → Maker
- LinkedIn → Lynda
- Abbvie → Pharmacyclics

Source: Thomson Reuters

M&A in 2015

- M&A activity is surging in 2015. According to Dealogic, global M&A volume reached \$3 trillion in August, poised to challenge the record-setting year of 2007. Healthcare deals led all sectors with transactions worth \$487B, with technology acquisitions in second place = \$392B.
- But one of the most active M&A company machines has been remarkably quiet. In 2014, Google acquired at least 35 companies, closing major deals that included Nest Labs (smarthome devices), DeepMind (artificial intelligence), Skybox (nano-satellites), and Dropcam (home monitoring). The Nest deal alone involved consideration of \$2.6 billion.
- This year, to date, Google has acquired a mere nine companies, with no targets reaching a valuation that Google felt obliged to disclose specific deal terms.

Key M&A issue

- Buyers (on average) earn only a going rate of return on their acquisitions, but there is a wide variance in the return. Sellers tend to earn a premium.

So:

1. How can my company do better than the average as a buyer?
2. What can my company do to maximize its premium as a seller?

Tenets of M&A framework

1. M&As can't do it alone – must start with a sound organization
 - Example: Atari/Federated (Tramiel buying shelf space for weak computer line)
2. Strategy design & execution is central
 - Identify growth opportunities where your firm can build upon core competency
3. M&A-related activity (acquisitions, alliances, JVs, minority investments) can extend capabilities and add value

Core competency examples

Competitive Advantage	Examples
Low costs	Wal-Mart
Brands; rebuildable brands	P&G; Himmel Group
Distribution, supplier relations	Dell
Technology	Intel (Microprocessors)
Resource control	Roll International/POM Wonderful (water)
Location	Walgreen
Developing managers	GE

Why M&A?

- Alternative I: “Irrational” managers
 - *Hubris* = pride that I will succeed while others may have failed
 - *Managerialism* = Size correlates with both *prestige* and *compensation*
- Alternative II: Irrational markets
 - Overvalued markets → share-for-share M&A based on information asymmetry
 - AOL/TimeWarner?
- Alternative III: Rational managers & markets
 - Managers seek competitive advantage and respond thoughtfully to opportunities and external shocks

Foundation of M&A Process



Strategy

- Responding to opportunity or threat
- Determining attractiveness of new industry positioning
- Establishing strategic deal system
- Determining optimum structural form for deal

Economics

- Doing valuation analysis
- Determining synergies
- Estimating revenues, costs & cash flows
- Determining effects of deal financing

Organization

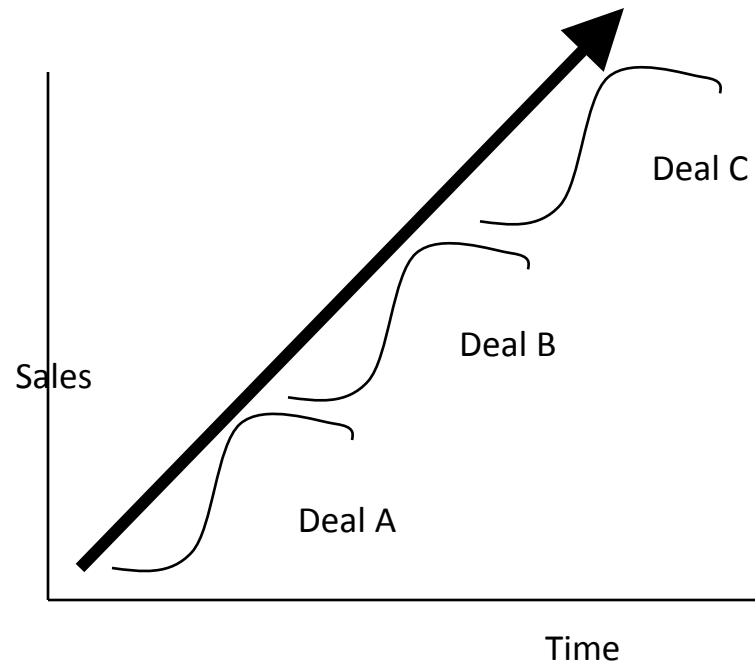
- Establishing best practices for postmerger integration
- Building acquisition teams
- Merging corporate cultures

Deal dynamics

- Designing the deal
- Conducting due diligence
- Handling legal concerns
- Engaging in negotiation and bidding
- Employing tax strategies

Motivation for inorganic growth

1. Buy business/product lines with high growth prospects to offset decline in mature product lines
 - Danger in buying sales at the cost of organizational value



Motivation for inorganic growth

2. Horizontal integration

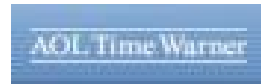
- Integrating firm with industry peers
- Goal is cost reduction or pricing power
- Antitrust regulation attempts to limit pricing power achieved via horizontal integration
- Examples:



Motivation for inorganic growth

3. Vertical integration

- » Combines firms along the value chain
- » Steel manufacturer purchases steel furniture fabricator
- » Can create value if efficiency is improved by cutting out intermediaries
- » Can guarantee a source of supply
- » Dangerous if integrated company buffers itself from external market information and discipline
- » Example:



Motivation for Inorganic Growth

4. Obtain unique resources and capabilities

- Acquire intellectual property, creative talent, patents, organizational knowledge
- Very common in biotech, software, defense electronics, entertainment
- Example: Cisco's dozens of acquisitions during the 1990's and...



Motivation for Inorganic Growth

5. Diversify

- Portfolio of companies whose returns are not highly correlated
- Does diversification create anything for shareholders that they could not do for themselves?
 - Possibly, if gains occur (e.g., knowledge transfer across divisions or cost of financing lowered)
- Conventional wisdom is that diversification destroys value (*Diworsification*, according to Peter Lynch), but
 - Consider Berkshire Hathaway, on the surface an insurance company, yet has had interests in razor blades, soft drinks, publishing, jewelry, railroads, and much more
- Examples:

BERKSHIRE HATHAWAY INC.

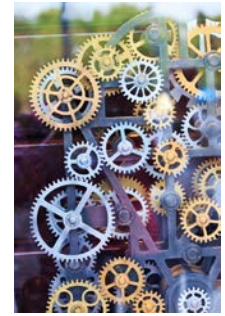




Organic growth

- In business, *organic growth* has little to do with selling organic produce. Organic growth comes from nurturing a company's existing businesses or internally developing new business lines.
- For example, an organization may choose to increase in-house sales and marketing competencies, to build inventory to generate additional sales, innovate new products or services, or other options that trigger growth to come from within. For the first decade of the 21st century, Apple was a prime example of organic growth, as it developed iPods, iPhones and iPads without making major acquisitions.

Inorganic growth



- *Inorganic growth* occurs when a company acquires another company and starts selling the target's products or services in order to enhance its own revenue. This type of growth arises from offerings that were developed outside of the acquirer.
- Investors find it useful to differentiate organic sales growth from inorganic in an attempt to better understand how sustainable growth is for a given company.

Semi-organic growth



- *Semi-organic growth* involves a stylistic blend of existing internal capabilities and acquired external resources. Such growth requires well-crafted integration efforts to succeed.

Google & semi-organic growth

- Google has enjoyed significant revenue growth as a result of blending people and technology from its acquisitions with pre-existing Google resources.
- In other words, much of Google's growth has been *semi-organic*. Semi-organic growth can be generated from acquisitions, where new products or services emerge from acquired talent and technology being attached to a company's existing capabilities in a complementary manner.
- Google's acquisition of Applied Semantics is a clear illustration of semi-organic growth.

Applied Semantics

- In 1997 Gil Elbaz and Adam Weissman founded the company that later became Applied Semantics (ASI).
- Elbaz and Weissman were initially interested in developing a search engine that would focus on *concepts* rather than keywords. They filed for a patent on semantic search, one of several patents that would turn out later to be quite valuable.

ASI technology



- ASI flushed out what it called CIRCA technology (Conceptual Information Retrieval and Communication Architecture) in a series of white papers. The technology was described as understanding, organizing, and extracting “knowledge from websites and information repositories in a way that mimics human thought.”
- ASI deployed its technology in a system known as *AdSense*
 - Companies would be paid “cents” for clicks resulting from ads placed on their web pages based on a thematic (sensed-base) analysis performed by AdSense.

Google and semantic search

- Inside Google, advertising executive Susan Wojcicki was championing the notion that Google should expand beyond search-based advertising using a strategy similar to what ASI was doing. Wojcicki believed that the entire web could become an advertising canvas for Google. Websites would develop content, leaving it to Google to determine the best ads for the sites.

The acquisition

- On April 23, 2003, Google announced its acquisition of Applied Semantics. Sergey Brin posted: "Applied Semantics is a proven innovator in semantic text processing and online advertising. This acquisition will enable Google to create new technologies that make online advertising more useful to users, publishers, and advertisers alike."

AdSense is refined

- Applied Semantics 45-person team became part of Google, but would stay in its Santa Monica, California location. Google would adopt Applied Semantics catchy name for its new advertising offering. The product would be called AdSense and over the years would undergo many revisions as the technology was refined. AdSense software would scan millions of Web pages for meaning. After parsing content, it could tell businesses what kind of ads would work well on a particular page.
- Although no one used the terms at the time, an *acqui-hire* had taken place, and Google's use of *semi-organic growth* was about to fan the flame

AdSense

Adsense impact

- Over the next ten years, Adsense grew to contribute over 25% of Google's advertising revenue, some \$13 billion. As the technology evolved, the ASI team, working with other Google engineers and related Google technology, was instrumental in helping Adsense become a cornerstone of Google's paid advertising platform.

Imprinting of semi-organic growth

- In acquiring Applied Semantics, Google obtained key assets including patents, technology, and people that greatly contributed to the revenue acceleration of what become one of its key offerings.
- But perhaps even more importantly, this deal imprinted on Google a pattern of semi-organic growth that persists to this day.



Dimensions of merger integration

Q. Is there one blueprint appropriate for all M&A integration efforts?

A. No. A variety of successful integration approaches have been identified. The *business rationale* for a deal (from obtaining cost efficiencies to developing new capabilities) is a major driver of integration strategy.

Dimensions of merger integration

Q. How do integration strategies vary?

A. Three dimensions of integration strategy have been identified: *autonomy, interdependence, and systems control*. After determining the rationale for a deal, a firm must make choices about each of these factors so that its integration strategy fits with business rationale.

Q. Can you give an example of when integration might be high in autonomy?

A. Autonomy matters when you are attempting to preserve the culture of an organization. For example, you might want to preserve craft skill (beer brewing), creative ability (computer game developer) or R&D talent (bio-tech lab)

Q. When is establishing interdependence important?

A. Interdependence is important when the target must mesh with the buyer's value chain or business processes. The AOL-Time Warner deal needed to be integrated with high interdependence.

On the other hand, a private equity firm seeking to grow the firm for resale in two years may not feel that interdependence with other portfolio companies is important.

Dimensions of M&A integration

- Q. Can you give an example of when low interdependence, but high autonomy and high control are appropriate for M&A integration.
- A. Sure. Between 1967 and 1992, Banc One acquired 60 banks. The company's integration strategy was to leave in place a target's leadership, culture and lending practices. However, Banc One did require that its banks adopt "best practice" management processes of the best performers in its confederation. And it established MIS systems that reported financial results to headquarters on 40 performance ratios.
- A confederation integration strategy may be used in industry roll-ups.
- Q. How about an example of high interdependence, high control, but low autonomy?
- A. Cisco and CEO John Chambers (~ 1998): "In a merger you can't blend resources and cultures - only one can survive."
- This illustrates an absorption strategy, where leadership, control systems and business processes are become that of the acquirer.

Acquisition types & integration strategies

Need for Strategic Interdependence

		Low	High
Need for Organizational Autonomy	High	Preservation (Domain Exploration)	Symbiosis (Domain Extension)
	Low	Holding (Many private equity deals)	Absorption (Domain Strengthening)

Adapted from Haspeslagh & Jemison, *Managing Acquisitions: Creating Value through Corporate Renewal* (Free Press, 1991)

THINK IN THE NEXT

UCLAAnderson

EXECUTIVE EDUCATION