NINJA BOOK

Financial Accounting & Reporting

Bonds

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Bonds

Investment in Bonds

Overview

Bonds are contractual agreements wherein the issuer (borrower) promises to pay the purchaser (lender) a principal amount at a designated future date. Besides, the issuer makes periodic interest payments based on the face amount of the bond and the stated rate of interest.

Acquisition

The initial recording will be at an amount equal to the purchase price of the bond plus other direct costs of acquisition (e.g., broker's fees). The market price of the bond is equal to the present value of the bond's interest and principal payments, discounted using the market interest rate for that type of bond. If bonds are bought between interest dates, the purchaser will have to pay an additional amount for the interest accrued on the bond since the last interest date (or the bond date, if before the first interest date). This additional amount is **not** part of the cost of the bond investment, but must be recorded separately as purchased interest (i.e., interest receivable).

Investment in Bonds	XXX	
Interest Receivable	XXX	
Cash		XXX

Example - 1 Acquisition of Bond and Interest Payment

X buys at par on September 1 a 10%, $1,000 bond issued on June 1 of the same year. Interest dates are June 1 and December 1.

Journal entries to record the purchase of the bonds and interest proceeds for the year:

Investment in Bonds	1,000	
Interest Receivable (10% × $1,000 × 3 months/12 months)	25	
Cash		1,025
To record the purchase of bonds on September 1.		
Cash (10% × $1,000 × 6/12)	50	
Interest Receivable		25
Interest Income		25
To record receipt of the interest proceeds on December 1.		

Premium or Discount

A premium or discount on bonds arises when the stated interest rate of the bonds is higher or lower, respectively, than the current market interest rate for similar securities. Bond premium or discount, generally, is not separately recorded by the investor (i.e., the bond investment is recorded at a single net amount).

- **Amortization** Premiums or discounts on bonds held long-term must be amortized from date of acquisition to maturity date and the interest method should be used to amortize these differences. Other methods of amortization (straight-line), may be used if the effects are not material.

- **Effect** The premium amortization decreases both the bond investment and investment income accounts, while the discount amortization increases both these accounts.

Example - 2 Bonds Acquired at a Discount

On June 30, year 1, ABC Corp. purchased 100 new bonds issued by XYZ Inc., with a total face amount of $100,000 and a 10% stated interest rate. The bonds mature in ten years and pay interest semiannually, on June 30 and December 31 (20 semiannual payments). The effective yield for similar securities is 12% annually and is reflected in the $88,530 purchase price paid by ABC Corp.

Determination of the appropriate purchase price of $88,530 for the $100,000 face amount of bonds by using the appropriate present value (PV) tables in Appendix D:

Maturity (face) amount to be received	$ 100,000	
PV factor for a single amount (6%, 20 periods)—Table 2	× 0.311805	
Present value of the maturity amount		$31,180.50
Semiannual interest payment to be received ($100,000 × 10% × 6/12)	5,000	
PV factor for an ordinary annuity (6%, 20 periods)—Table 4	× 11.469921	
Present value of future interest payments		57,349.60
Present value of the bonds		$88,530.10

Journal entry to record the acquisition of the bonds:

Bond Investment	88,530	
Cash		88,530

Example - 3 Interest Income and Discount Amortization

Referring to the facts of Example 2, following are ABC Corporation's journal entries to record interest income and discount amortization for the year ending December 31, year 1, assuming (1) straight-line and (2) effective interest methods of discount amortization:

(1)	*Straight-Line Method:*		
	Cash ($100,000 × 0.05)	5,000	
	Bond Investment [($100,000 – $88,530) / 20]	574*	
	Interest Income		5,574
(2)	*Effective Interest Method:*		
	Cash ($100,000 × 0.05)	5,000	
	Bond Investment (balancing amount)	312*	
	Interest Income ($88,530 × .06)		5,312

* **NOTE:** The total amortization of the bond investment discount will be the same over the 10-year life of the bonds under either the straight-line or the interest method. As noted earlier, the amortization of the bond investment discount increases the bond *Investment* and *Interest Income* accounts. The amortization of a bond investment premium would decrease these accounts.

Exhibit 1 - Bond Premiums and Discounts

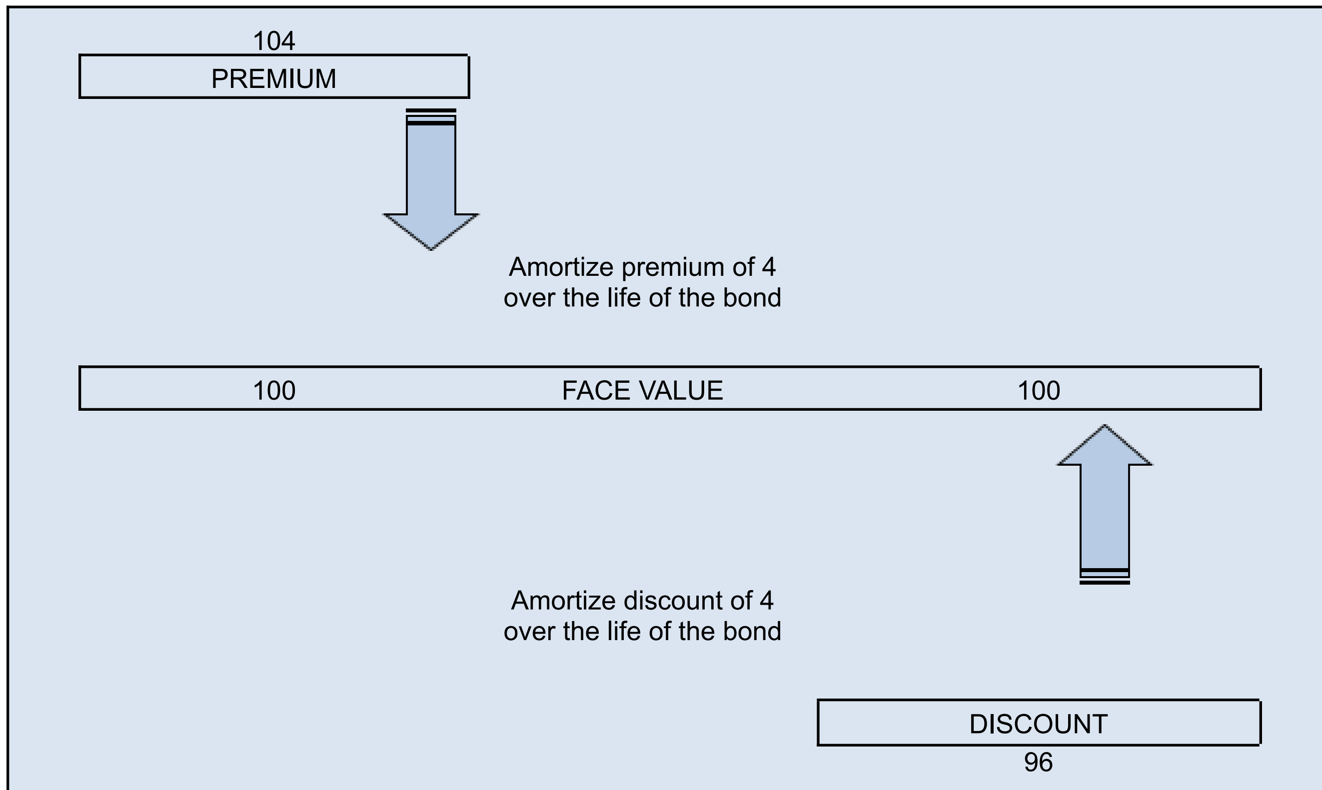

Exhibit 2 - Effective Interest Method

Bond issued at	Effective interest rate	×	Carrying value	=	Amount of interest income/expense
Discount	Constant		Increasing		Increasing
Premium	Constant		Decreasing		Decreasing

Interest Accrual

The bond interest payment date and the investor's year-end may not coincide. In this case, the investor must accrue the interest income earned through year-end, including the required amortization of premium or discount.

Example - 4 Different Year-End and Payment Dates

Referring to the facts of Example 2 again, except that ABC Corporation's year-end is March 31. Following are ABC Corporation's journal entries to record interest income and discount amortization for the year ending March 31, year 2, assuming (1) straight-line and (2) effective interest methods of discount amortization:

		Debit	Credit
(1)	*Straight-Line Method:*		
	Accrued Interest Receivable ($100,000 × 0.05 × 3/6)	2,500	
	Bond Investment ($574 × 3/6)*	287	
	Interest Income		2,787
(2)	*Interest Method:*		
	Accrued Interest Receivable	2,500	
	Bond Investment (balancing amount)	165	
	Interest Income [($88,530 + $312) × 0.06 × 3/6]		2,665

* On March 31, year 2, ABC records interest income for 3 months of the six-month payment. The 10% rate is an annual rate.

Sale of Bond Investments

The sale of bonds held for investment results in a gain or loss equal to the difference between the carrying amount of the bonds and the proceeds received on their disposal.

- **Carrying Amount** In determining the carrying amount of the bonds, adjustment must be made for premium or discount amortization to date of sale.
- **Bonds Sold Between Interest Dates** If the bonds are sold between interest dates, part of the proceeds must be assigned to the interest accrued since the last interest date.

Example - 5 Sale of Bond Investment

Refer to the facts of Example 2. On August 31, year 5, ABC sold the 100 bonds to LMN Inc. for $92,000, which included interest accrued on the bonds. ABC amortized the original discount on the bonds under the straight-line method.

Gain (or loss) to be recognized by ABC on the sale of the bonds:

Proceeds received	$ 92,000
Less: Amount attributable to accrued interest, $100,000 × 0.05 × 2/6	(1,667)
Sale price of bonds	90,333
Carrying amount*	93,313
Gain (loss) on sale of bonds	$ (2,980)

Computation:

* Original purchase price, June 30, year 1	$88,530
Plus, discount amortization:	
Through June 30, year 5 ($574 × 8)	4,592
July 1 to August 31, year 5 ($574 × 2/6)	191
Carrying amount of the bonds	$93,313

Bonds Payable

Overview

Bonds payable represent a contractual obligation to make periodic interest payments on the amount borrowed and to repay the principal upon maturity. Therefore, when a company sells a bond issue it is in effect selling two cash flows.

- **Principal** The receipt of the bond principal at its maturity.
- **Interest** The receipt of the periodic interest payments. The bonds' stated interest rate and face amount determine the amount of periodic interest payments.

Disclosures

The combined aggregate amount of maturities and sinking fund requirements for all long-term borrowings must be disclosed for each of the five years following the date of the latest balance sheet presented.

Bond Classification

- **Based on Maturity**
    - **Term Bonds:** Bonds maturing at a specified date with entire principal maturing on a single date at the end of the lease term.
    - **Serial Bonds:** Bonds providing for repayment of principal in a series of installments.

- **Based on Security**
  - **Secured Bonds:** Bonds secured by collateral.
  - **Debenture Bonds** Unsecured bonds; they are not supported by a lien or mortgage on specific assets
- **Miscellaneous**
  - **Callable Bonds:** Bonds that may be retired at the issuer's option. Issuer has the right to redeem (call) before maturity date.
  - **Convertible Bonds:** Bonds that may be converted to stock at the bondholder's option.
    - ✔ **With non-detachable warrants:** The Convertible bond itself is converted to stock by bonds being surrendered at conversion.
    - ✔ **With detachable warrants:** Bonds are not surrendered upon conversion, only the warrants plus any cash representing the exercise price of the warrants are exchanged for stocks. Warrants can also be bought and sold separately from bonds.
  - **Zero Coupon Bonds:** Bonds that do not have any stated rate of interest. These are sold at discount and redeemable at face value on maturity.

Interest rates

- **Stated / contract / face / coupon / nominal rate** - Rate of interest printed on the face of the bond. It represents interest payable by the borrower
- **Market / effective / yield / yield-to-maturity / real rate** - Prevailing market rate of interest for the bond
- **Stated rate vs. Market rate:**
  - Stated rate = Market rate → Bonds will sell at face value
  - Stated rate < Market rate → Bonds will sell at a discount
  - Stated rate > Market rate → Bonds will sell at a premium

Bond Issuance

When bonds are issued, only the face amount of the bonds is recorded in the *Bonds Payable* account. The bond discount or premium, if any, is recorded in a separate account and reported in the balance sheet as a direct deduction from or addition to the face amount of the bond. Recognized debt liability costs are presented in the balance sheet as a direct deduction from the amount of the debt liability, consistent with debt discounts.

Journal Entry:

Account	Debit	Credit
Cash	XXX	
Bond Issue Costs (BIC)	XXX	
Discount on Bond Issuance	XXX	
Premium on Bond Issuance		XXX
Bonds Payable		XXX
Accrued Interest		XXX

Example - 6 Bond Issuance

On January 1, year 1, Maple Company issued five-year bonds with a face amount of $200,000 and a stated interest rate of 8%, payable semiannually on June 30 and December 31. The bonds were priced to yield 6%. The present value factor for the present value of $1 for 10 periods at 3% is 0.74409; the factor for the present value of an ordinary annuity of $1 for 10 periods at 3% is 8.53020.

Total issue price of the bond:

Present value of principal payment		
[$200,000 × 0.74409 (PV of $1 for 10 periods at 3%)]	$	148,818
Present value of periodic interest payments [($200,000 × 8% / 2) × 8.53020]		68,242
Amount received from the issuance of the bonds	$	217,060

The stated rate of interest (8%) is above the market rate (6%). Therefore, these bonds were sold at a premium.

Journal entry to record the bond issuance:

Cash	217,060	
Bonds Payable		200,000
Bond Premium (difference)		17,060

Bond Selling Price

To estimate the proceeds to be received from the issuance of bonds payable (ignoring bond issue costs), the present values of the bond principal and interest payments must be determined. The prevailing market (yield) rate is used to discount the cash flows to arrive at their present value.

- **Premium** A bond will sell at a **premium** (more than par) when the stated interest rate is *greater* than the market rate for similar debt.
- **Discount** A bond will sell at a **discount** (less than par) when the stated interest rate is *less* than the market rate.
- **Par** A bond will sell at **par** when the stated interest rate *equals* the market rate.

Bond Issue Costs

Bond Issue Costs include legal fees, accounting fees, underwriting commissions, registration, printing and engraving, and other such costs incurred in preparing and selling a bond issue. FASB issued Accounting Standards Update 2015-03 requiring BIC to deducted from CV of bonds and amortized using effective interest method - i.e., BIC are treated similar to discount/premium & reported as an adjustment to Bond Payable liability.

The Board released the new guidance as part of its simplification initiative.

Bond Retirement

To estimate the proceeds to be received from the issuance of bonds payable (ignoring bond issue costs), the present values of the bond principal and interest payments must be determined. The prevailing market (yield) rate is used to discount the cash flows to arrive at their present value.

- **Debt Extinguishment** A debtor considers debt to be extinguished for financial reporting purposes in the following situations:
    - Once the debtor pays the creditor, he is relieved of the debt, including the debtor's reacquisition of its outstanding debt securities through cancellation or holding as treasury bonds.
    - The debtor legally is released from being the primary obligor under the debt, either judicially or by the creditor.
- **Extinguishment vs. Refunding** Extinguishment includes the reacquisition of debt securities regardless of whether the securities are canceled or held as so-called treasury bonds. Refunding refers to achieving the reacquisition by the use of proceeds from issuing other securities.
- **Principal and Related Amounts** When all or part of a bond issue is retired before maturity, it is necessary to write off both the principal and the pro-rata portion of the unamortized premium or discount on the retired bonds. If bond issue costs were incurred and recorded as an asset (i.e., as a deferred charge), it is also necessary to write off a pro-rata portion of the bond issue costs (when a bond issue is retired before maturity). The amount of such write-off increases any loss or reduces any gain recognized on the retirement.

Journal Entry for Bond Retirement:

Account	Debit	Credit
Bonds Payable (Face Value)	XXX	
Interest Payable (Accrued Interest)	XXX	
Premium (unamortized)	XXX	
Loss (plug)	XXX	
Cash paid to retire		XXX
Bond Issue Costs (unamortized)		XXX
Discount (unamortized)		XXX
Gain (plug)		XXX

Example - 7 Bond Retirement

On January 1, year 1, Ben Corporation issued $600,000 of 5% ten-year bonds at 103. Ben records amortization using the straight-line method (i.e., the amount is considered immaterial). On December 31, year 5, when the fair value of the bonds was 97, Ben repurchased $300,000 of the bonds in the open market at 97. Ben has an effective income tax rate of 30%. Ben has recorded interest and amortization for year 5. Ben should record this retirement as follows:

Account	Debit	Credit
Bonds Payable ($600,000 × 0.50)	300,000	
Bond Premium ($9,000 × 0.50)	4,500	
Taxes Payable ($13,500 × 0.30)		4,050*
Cash ($300,000 × 0.97)		291,000
Gain on Bond Retirement		9,450*

*Computations:

Original carrying amount ($600,000 × 103%)		$ 618,000
Premium to be amortized ($618,000 – $600,000)	$ 18,000	
Amortization [($18,000 / 10) × 5 yrs.]	9,000	9,000
Carrying amount of bonds, 12/31, year 5		609,000
Portion of bonds retired		× 50%
Carrying amount of bonds retired		304,500
Purchase price ($300,000 × 97%)		291,000
Gain on bond retirement, before income taxes		$ 13,500

Premium and Discount Amortization

Straight-Line Method

Straight-line amortization calls for the amortization of an equal amount of premium or discount each period over the life of the bonds. The straight-line method is acceptable only when the premium or discount is immaterial, because it fails to determine the periodic interest expense in terms of the effective rate of interest.

- Amortization = $\frac{\text{Premium or discount}}{\text{\# of periods bond is outstanding}}$
- Interest expense = (Face value * Stated interest rate) + Discount amortization - Premium amortization
- **Interest value is constant**

Example - 8 Straight-Line Amortization

To amortize the premium in Example 6 using the straight-line method, divide the premium by the number of interest periods: $17,060 / 10 = $1,706.

Effective Interest Method

The effective interest method of amortization calls for recognizing interest expense at the effective interest rate at which the bonds were sold. Thus, this interest method overcomes the criticism of the straight-line method because it offers a more accurate measurement of interest expense. Use of the effective interest method results in a constant rate of interest when applied to the carrying amount of the bonds at the beginning of the period. As with long-term notes payable, other amortization methods may be used when the results do not differ materially from those obtained with the effective interest method.

- Interest paid = Face value * Stated interest rate
- Effective Interest (expensed on the I/S) = Carrying value * Market interest rate
- Amortization of premium/discount is the difference between effective interest rate and actual interest rate
  - Amortization of premium = Interest paid - Effective interest
  - Amortization of discount = Effective interest - Interest paid
- Since **interest rate is constant** every period, also called Constant yield method

Example - 9 Effective Interest Method Amortization

To amortize the premium in Example 6 using the effective interest method, multiply the carrying amount of the bond issue ($217,060) by the effective yield (3%). This equals interest expense for the period ($6,512). The difference between the cash interest payment and the interest expense equals the amount of premium amortization for the period ($8,000 – $6,512 = $1,488). This procedure is followed each period until the maturity date when the premium (or discount) will be fully amortized.

Example - 10 Interest Payments

Journal entries to record the first four interest payments for the bonds illustrated in Example 6, rounding amounts to the nearest dollar:

		Dr.	Cr.
6/30, year 1:	Interest Expense [($200,000 + 17,060) × 0.03]	6,512	
	Bond Premium (to balance)	1,488	
	Cash ($200,000 × 0.04)		8,000
12/31, year 1:	Interest Expense [($200,000 + 15,572*) × 0.03]	6,467	
	Bond Premium (to balance)	1,533	
	Cash ($200,000 × 0.04)		8,000
6/30, year 2:	Interest Expense [($200,000 + 14,039*) × 0.03]	6,421	
	Bond Premium (to balance)	1,579	
	Cash ($200,000 × 0.04)		8,000
12/31, year 2:	Interest Expense [($200,000 + 12,460*) × 0.03]	6,374	
	Bond Premium (to balance)	1,626	
	Cash ($200,000 × 0.04)		8,000

* 12/31, year 1: $17,060 – $1,488 = $15,572; 6/30/X2, $15,572 – $1,533; 12/31/X2, $14,039 – $1,579

Exhibit 3 - Bond Premium Amortization Table

(1) Period		(2) Cash interest payments	(3) 3% × Prior (6) interest expense	(4) (2) – (3) Premium amortization	(5) Prior (5) – (4) unamortized premium	(6) $200,000 + (5) Carrying amount
0		—	—	—	$17,060.00	$217,060.00
1		$8,000	$6,511.80	$1,488.20	15,571.80	215,571.80
2		8,000	6,467.15	1,532.85	14,038.95	214,038.95
3		8,000	6,421.17	1,578.83	12,460.12	212,460.12
4		8,000	6,373.80	1,626.20	10,833.92	210,833.92
5		8,000	6,325.02	1,674.98	9,158.94	209,158.94
6		8,000	6,274.77	1,725.23	7,433.71	207,433.71
7		8,000	6,223.01	1,776.99	5,656.72	205,656.72
8		8,000	6,169.70	1,830.30	3,826.42	203,826.42
9		8,000	6,114.79	1,885.21	1,941.21	201,941.21
10		8,000	6,058.79*	1,941.21	0	200,000.00

* $0.55 difference due to rounding

Application - 1

On January 2 of the current year, West Co. issued 9% bonds in the amount of $500,000, which mature in ten years. The bonds were issued for $469,500 to yield 10%. Interest is payable annually on December 31. West uses the effective interest method of amortizing bond discount. In its June 30 current year balance sheet, what amount should West report as bonds payable?

a. $469,500
b. $470,475
c. $471,025
d. $500,000

(b) $469,500 + $975 = $470,475

Bonds payable carrying amount, 1/2	$	469,500
Effective interest rate (10% × 6/12)	×	5%
Interest expense, 1/2 - 6/30		23,475
Interest payment [$500,000 × (9% × 6/12)]		(22,500)
Amortization of discount, 1/2 - 6/30	$	975

Amortization Effects

Amortization of a bond premium decreases interest expense and the carrying amount of the bond for the issuer, while the amortization of a bond discount increases the issuer's interest expense and the carrying amount of the bond.

	Effective Interest Rate Method		Straight Line Method (non-GAAP)
	Amortization of Discount	**Amortization of Premium**	**Amortization of Premium / Discount**
Carrying amount	Increases each period (but remains lower than SLM)	Decreases each period (but remains higher than SLM)	Amortization of Premium decreases each period, Amortization of Discount - increases each period
Interest expense	Increases each period with increase in CV	Decreases each period with decrease in CV	Constant each period
Amount of Amortization	Increases each period	Increases each period	Constant each period (straight line)

Interest and Year-End Dates Differ

An adjusting entry is required when interest dates do not coincide with the end of the accounting period, to record accrued interest expense and bond premium or discount amortization.

Interest	XXX	
Premium amortization pro-rata (if any)	XXX	
Interest payable		XXX
Discount amortization pro-rata (if any)		XXX

Example - 11 Interest and Year-End Dates Differ

In Example 6, assume the end of the accounting period comes 3 months after the bonds are issued.

Journal entry required at 3/31, year 1:

Interest Expense ($6,512 × 3/6)	3,256	
Bond Premium ($1,488 × 3/6)	744	
Accrued Interest Payable ($8,000 × 3/6)		4,000

Issuance Between Interest Dates

Bonds payable are often sold between interest dates. If bond issue costs or a bond premium or discount is involved, it must be amortized over the period the bonds are outstanding.

Cash	XXX	
Bonds Payable		XXX
Accrued Interest payable		XXX

Example - 12 Issuance Between Interest Dates

On March 1 of the current year, Trisha Company issued 12% ten-year bonds with a face amount of $1,000. The bonds are dated January 1 of this year, and interest is payable semiannually on January 1 and July 1. The bonds were sold at par and accrued interest.

Journal entry to record the bond issuance:

Cash	1,020	
Bonds Payable (face amount)		1,000
Accrued Interest Payable ($1,000 × 0.12 × 2/12)		20

Bonds with Additional Features

Serial Bonds

A set of bonds issued at the same time but having different maturity dates. These are also called installment bonds because they provide a series of installments for repayment of principal.

- **Present Values** To determine the selling price of serial bonds, compute the present value of the principal and interest payments for each series separately, then total the present value of each series.
- **Declining Principal** The amortization of bond premium or discount on serial bonds requires the recognition of a declining debt principal. Successive bond years cannot be charged with equal amounts of premium or discount because of a shrinking debt and successively smaller interest payments.
- **Amortization of Premium/Discount** Bond premium or discount, if material, should be amortized using the effective interest method.

Bonds with Detachable Stock Warrants

When bonds are issued with detachable stock warrants, allocation of the proceeds between the warrants and the debt security based on relative fair values is required. If the FV of one security is not determinable, the proceeds are assigned based on the FV of the other security. The rationale behind this allocation is that, even if the warrants are exercised, the debt will still remain. There are two separate elements, the debt and the warrants. The warrants are accounted for as paid-in capital.

Example - 13 Detachable Stock Warrants

On November 1, year 1, two hundred $1,000, 8% bonds due October 31, year 5, were sold at 103 with one detachable stock purchase warrant attached to each bond. The fair value of the bonds without the stock warrants is 98. The fair value of the warrants has not been determined. Each warrant entitles the holder to purchase ten shares of common stock (par $10) at $30 per share.

Borrower			Investor (net)		
Cash	206,000		Bond Investment	196,000	
Bond Discount	4,000		Stock Warrants	10,000	
Bond Payable		200,000	Cash		206,000
APIC-Stock Warrants		10,000			

Computations:

Cash proceeds [(200 × $1,000) × 103%]	$ 206,000
Proceeds allocated to bonds (200 × $1,000 × 98%)	196,000
Proceeds allocated to warrants (remainder)	$ 10,000
Bond discount ($200,000 – $196,000)	$ 4,000

If 100 of the 200 stock purchase warrants are exercised:

Borrower			Investor (net)		
Cash (100 × 10 × $30)	30,000		Inv. in Common Stock		
APIC-Stock Warrants			(1,000 × $35)	35,000	
($10,000 × 100/200)	5,000		Stock Warrants		
Common Stock			($10,000 × 100/200)		5,000
(1,000 × $10 PV)		10,000	Cash (100 × 10 × $30)		30,000
APIC-Common St. (to bal.)		25,000			

Convertible Bonds

Convertible bonds provide the bondholder the option of converting the bond to capital stock, typically common stock. Convertible debt securities are those debt securities which are convertible into common stock of the issuer or an affiliated company at a specified price at the option of the holder and which are sold at a price or have a value at issuance not significantly in excess of the face amount. In most cases such securities also are callable at the option of the issuer and are subordinated to nonconvertible debt.

- **Terms** The terms of convertible debt securities generally include the following:
    - An interest rate which is lower than the issuer could establish for nonconvertible debt.
    - An initial conversion price which is greater than the market value of the common stock at time of issuance.
    - A conversion price which does not decrease except pursuant to anti-dilution provisions.
- **General** No proceeds from the debt issue are to be assigned to the conversion feature (even though the convertible bonds may sell for substantially more than similar nonconvertible bonds). The reason for no allocation to equity is that the debt cannot be separated from the conversion feature, as would be the case with detachable stock warrants.

- **Book Value Method** The conversion of the bonds into common stock is generally recorded by crediting the paid-in capital accounts for the carrying amount of the debt at the date of the conversion; thus, no gain or loss is recognized upon conversion. Costs associated with the conversion are **not** recognized as an expense. The paid-in capital accounts are credited for the carrying amount of the debt converted, **less** any costs associated with the conversion.

- **Market Value Method** Alternately, the market value method recognizes a gain or loss on retirement equal to the difference between the carrying amount of the debt at the date of the conversion and the fair value of the shares issued upon conversion.

Book value method (GAAP)	**Market value method (non-GAAP)**
Value at book value of the bonds	Value at market price of the stocks or bonds, whichever is more reliable
No gain or loss balance is plugged to Additional paid-in capital	Plug the gain or loss on redemption
Bonds Payable XXX Premium XXX Bond Issue Costs XXX Common Stock (par) XXX **APIC (plug)** XXX	Bonds Payable XXX Premium XXX **Loss (plug)** XXX Bond Issue Costs XXX Common Stock (par) XXX Addl. Paid-in Capital XXX **Gain (plug)** XXX

Example - 14 Bond Conversion

Bonds with a face amount of $10,000 and a carrying amount of $10,400 are converted into 100 shares of $50 par common stock with $90 fair value.

Journal entries recording conversion of the bonds in the books of the issuer under (a) the book value method, and (b) the market value method:

(a) *Book Value Method:*

	Dr	Cr
Bonds Payable	10,000	
Bond Premium	400	
Common Stock (100 × $50 PV)		5,000
Add'l. Paid-In Capital (to balance)		5,400

(b) *Market Value Method:*

	Dr	Cr
Bonds Payable	10,000	
Bond Premium	400	
Common Stock (100 × $50 PV)		5,000
Add'l. Paid-In Capital [100 × ($90 FV – $50 PV)]		4,000
Gain on Conversion ($10,400 – $9,000)		1,400

- **Induced Conversions** Generally a gain or loss is required to be recognized on the *retirement* of debt, including certain convertible debt. However, this does not apply to debt that is *converted* to equity securities of the debtor pursuant to conversion privileges provided in the terms of the debt at issuance. The conversion of convertible debt securities to stock may or may not result in gain recognition, depending on whether the book value or the market value method is used. (Note: the same method must be consistently applied.)

Bond Journal Entries

Premiums and Discounts

Example - 15 Straight-Line Premium Amortization

On January 1, year 1, a $1,000 face value, two-year bond, with a 10% coupon rate of interest is sold for 104. The effective yield is 7.8%. Interest is paid semi-annually on June 30 and December 31.

Journal entries using the straight-line method to amortize the premium:

Borrower			Investor		
January 1, year 1					
Cash	1,040		Invest. in Bond	1,040	
Bond Payable		1,000	Cash		1,040
Premium		40			
June 30, year 1					
Interest Expense	40		Cash	50	
Premium	10		Invest. in Bond		10
Cash		50	Interest Income		40
Same journal entries for next 3 periods.			Same journal entries for next 3 periods.		
December 31, year 2					
Bond Payable	1,000		Cash	1,000	
Cash		1,000	Invest. in Bond		1,000

Example - 16 Effective Interest Method of Premium Amortization

Same as Example 15, except using the effective interest method to amortize the premium:

Borrower			Investor		
January 1, year 1					
Cash	1,040				
Bond Payable		1,000	Invest. in Bond	1,040	
Premium		40	Cash		1,040
June 30, year 1					
Interest Expense			Cash	50	
[($1,000 + $40) × 3.9%]	41		Invest. in Bond		9
Premium	9		Interest Income		41
Cash		50			
December 31, year 1					
Interest Expense			Cash	50	
[($1,000 + 30.56) × 3.9%]	40		Invest. in Bond		10
Premium	10		Interest Income		40
Cash		50			
June 30, year 2					
Interest Expense			Cash	50	
[(1,000 + 20.75) × 3.9%]	40		Invest. in Bond		10
Premium	10		Interest Income		40
Cash		50			
December 31, year 2					
Interest Expense			Cash	50	
[(1,000 + 10.56) × 3.9%]	39		Invest. in Bond		11
Premium	11		Interest Income		39
Cash		50			
Bond Payable	1,000		Cash	1,000	
Cash		1,000	Invest. in Bond		1,000

Example - 17 Straight-Line Discount Amortization

Same as Example 15, except that the bond is sold for 96 and the effective interest rate is 12.3%.

Borrower			Investor		
January 1, year 1					
Cash	960		Invest. in Bond	960	
Discount	40		Cash		960
Bond Payable		1,000			
June 30, year 1					
Interest Expense	60		Cash	50	
Cash		50	Invest. in Bond	10	
Discount		10	Interest Income		60
Same journal entries for next 3 periods.			Same journal entries for next 3 periods.		
December 31, year 2					
Bond Payable	1,000		Cash	1,000	
Cash		1,000	Invest. in Bond		1,000

Example - 18 Effective Interest Method of Discount Amortization

Same as Example 15, except use the effective interest method to amortize the discount.

Borrower			Investor		
January 1, year 1					
Cash	960		Invest. in Bond	960	
Discount	40		Cash		960
Bond Payable		1,000			
June 30, year 1					
Interest Expense			Cash	50	
[(1,000 – 40) × 6.15%]	59		Invest. in Bond	9	
Cash		50	Interest Income		59
Discount		9			
December 31, year 1					
Interest Expense			Cash	50	
[($1,000 – 30.96) × 6.15%]	60		Invest. in Bond	10	
Cash		50	Interest Income		60
Discount		10			
June 30, year 2					
Interest Expense			Cash	50	
[(1,000 – 21.36) × 6.15%]	60		Invest. in Bond	10	
Cash		50	Interest Income		60
Discount		10			
December 31, year 2					
Interest Expense			Cash	50	
[(1,000 – 11.18) × 6.15%]	61		Invest. in Bond	11	
Cash		50	Interest Income		61
Discount		11			

Mid-Period Issue

Example - 19 Issuance Between Interest Dates

$1,000 face value, 2-year bond with a 10% coupon rate of interest is sold on April 1 of the current year at par. Interest is paid semi-annually on June 30 and December 31.

Borrower			Investor		
April 1					
Cash	1,025		Invest. in Bond	1,000	
Bond Payable		1,000	Interest Receivable	25	
Interest Payable		25	Cash		1,025
June 30					
Interest Expense	25		Cash	50	
Interest Payable	25		Interest Income		25
Cash		50	Interest Receivable		25

Warrants

Example - 20 Detachable Warrants

On January 1 of the current year, 100 bonds with $1,000 face values and each with 20 detachable stock warrants (100 × 20 = 2,000) are sold at 105. Twenty warrants and $800 may be converted into one share of $200 par value common stock. The warrants have a fair value of $12,000 and expire on July 1. One half of the warrants are exercised on June 30 and the other half expire on July 1.

Borrower			Investor		
January 1					
Cash	105,000		Invest. in Bond	93,000	
Discount	7,000		Warrants	12,000	
Bond Payable		100,000	Cash		105,000
APIC—Warrants		12,000			
June 30					
Cash	40,000		Invest. in Stock	46,000	
APIC—Warrant	6,000		Cash		40,000
Common Stock		10,000	Warrants		6,000
APIC		36,000			
July 1					
APIC—Warrant	6,000		Loss on Investment	6,000	
APIC		6,000	Warrants		6,000

Computations:

Warrant	$12,000 × 50% =	$ 6,000
Cash	$ 800 × 50 =	40,000
		46,000
Common stock	$200 par × 50 =	(10,000)
APIC		$ 36,000

Convertible Bonds

Example - 21 Convertible Bonds, Book Value Method

On January 1 of the current year, 100 bonds with $1,000 face values and each with 20 nondetachable stock warrants (100 × 20 = 2,000) are sold at 105. Twenty warrants, one bond, and $800 may be converted into one share of $200 par value common stock. 50% of the bonds are converted on June 30, and the book value method is used to record the conversion.

Borrower			Investor		
January 1					
Cash	105,000		Invest. in Bond	105,000	
Bond Payable		100,000	Cash		105,000
Premium		5,000			
June 30					
Cash	40,000		Invest. in Stock	92,500	
Bond Payable	50,000		Cash		40,000
Premium	2,500		Invest. in Bond		52,500
Common Stock		10,000			
APIC		82,500			

Computations:

Bond	$1,000 × 50 =	$50,000
Premium	$5,000 × 50% =	2,500
Cash	$ 800 × 50 =	40,000
		92,500
Common stock	$200 par × 50 =	(10,000)
APIC		$82,500

Example - 22 Convertible Bonds, Market Value Method

On January 1 of the current year, 100 bonds with $1,000 face values and each with 20 nondetachable stock warrants (100 × 20 = 2,000) are sold at 105. Twenty warrants, one bond, and $800 may be converted into one share of $200 par value common stock. All of the bonds are converted on June 30. The market value method is used to record the conversion and the fair value of the stock on the date of conversion is $2,000.

Borrower			Investor		
January 1					
Cash	105,000		Invest. in Bond	105,000	
Bond Payable		100,000	Cash		105,000
Premium		5,000			
June 30					
Cash	80,000		Invest. in Stock	200,000	
Bond Payable	100,000		Cash		80,000
Premium	5,000		Invest. in Bond		105,000
Loss on Conversion	15,000		Gain on Conversion		15,000
Common Stock		20,000			
APIC		180,000			

Computations:

Bond	$1,000 × 100=	$ 100,000	Common stock	$ 20,000	
Cash	$ 800 × 100=	80,000	APIC	180,000	
					$ 200,000
Common stock	$200 par × 100=	20,000	Bond	100,000	
APIC	($2,000 – 200) × 100=	180,000	Premium	5,000	
			Cash	80,000	
					(185,000)
			Gain		$15,000

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Auditing & Attestation

Attestation Engagements

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Attestation Engagements

Overview of Attestation Standards

Attestation Engagements

1. **Attestation** An attest engagement is one in which a CPA in public practice (i.e., practitioner) is engaged to, or does, issue an examination, review, compilation or agreed-upon procedures report on subject matter, or an assertion about subject matter, that is the responsibility of another party (usually management). An attest engagement may be part of a larger engagement, for example, a feasibility study or business acquisition study that includes an examination of prospective financial information.

2. **Applicability** Attestation services include: agreed-upon procedures (excluding letters to underwriters and consulting services or any attest engagement concerning assertions about solvency); financial forecasts and projections; pro forma financial statements; internal control over financial reporting; compliance reporting (regulatory or contractual); and Management's Discussion and Analysis. An attest engagement can be: an audit or other engagement under SAS; a review of financial statements under SSARS; an examination of prospective financial information under SSAE; or any engagement under PCAOB. It does not include any other SSAE engagement (such as a review or agreed-upon procedure), nor does it include compilations under SSARS.

3. **Degrees of Responsibility** AT 20, *Defining Professional Requirements in Statements on Standards for Attestation Engagements*, defines two kinds of requirements that describe the practitioner's degrees of responsibility.

    a. **Unconditional Requirements** The practitioner is required to comply with an unconditional requirement in all cases in which the requirement applies. The words *must* or *is required* indicate an unconditional requirement.

    b. **Presumptively Mandatory Requirements** The practitioner is also required to comply with a presumptively mandatory requirement in all cases in which the requirement applies. However, in rare circumstances, the practitioner may depart from such a requirement provided the practitioner documents the justification in the workpapers and the alternative procedures performed to achieve the objectives of that requirement. The word *should* indicate a presumptively mandatory requirement.

4. **Subsequent Events** Attest standards define subsequent events in essentially the manner as for audits performed in accordance with GAAS. While the practitioner has no responsibility to detect subsequent events, the practitioner should inquire of the responsible party (and the client, if different) as to whether they are aware of any subsequent events through the report date. The representation letter ordinarily contains a representation about subsequent events.

5. **Subject Matter** The subject matter of an attest engagement may take many forms, including:

    a. Historical or prospective performance or condition, for example, historical or prospective financial information, performance measurements, and backlog data

    b. Physical characteristics, for example, narrative descriptions, square footage of facilities

    c. Historical events, for example, the price of a market basket of goods on a certain date

    d. Analyses, for example, break-even analyses

    e. Systems and processes, for example, internal control

    f. Behavior, for example, corporate governance, compliance with laws and regulations, human resource practices

6. **Written Assertion** An assertion is any declaration(s) about whether subject matter is based on, or in conformity with, selected criteria. A CPA may attest to a written assertion or directly on the subject matter.

In either situation, the CPA typically obtains a written assertion in an examination or a review engagement. A written assertion may be presented to the CPA in several ways, including: a narrative description, a schedule, or as part of a representation letter which clearly identifies what is being presented and the point in time or period of time covered. Without a written assertion, the CPA still may report on the subject matter; however, the CPA needs to exercise caution and ensure that interested parties clearly understand the subject matter in question, including restricting use of the report, when appropriate.

7. **Trust Services** Trust Services are a set of professional assurance services based on a framework comprised of a core set of principles and criteria. The framework addresses risk and opportunities associated with information technology. SysTrust and WebTrust are two specific services jointly developed by the AICPA and the Canadian Institute of Chartered Accountants. Engagements use the following five principles and criteria: security; availability; processing integrity; online privacy; and confidentiality.

    a. **WebTrust** Practitioners who obtain a WebTrust business license from can provide assurance services to evaluate and test whether a particular eCommerce service meets the selected principles and criteria. The WebTrust seal of assurance is placed on the organization's website following the engagement and signifies the practitioner's unqualified opinion.

    b. **SysTrust** A SysTrust engagement allows practitioners to provide assurance on the reliability of a system.

Attestation Standards

The AICPA Code of Professional Conduct requires an AICPA member who performs an attestation engagement to comply with Statements on Standards for Attestation Engagements (SSAE). SSAE are codified within the framework of the 11 attestation standards. Attestation interpretations are recommendations on the application of SSAE in specific circumstances. The practitioner should be aware of and consider attestation interpretations applicable to the attestation engagement. If the practitioner does not apply the attestation guidance included in an applicable attestation interpretation, the practitioner should be prepared to explain how he or she complied with SSAE provisions addressed by such attestation guidance.

1. **Applicability** SSAE do not apply to: audits; reviews and compilations of financial statements of nonissuers under SSARS; tax return preparation; advocating, consulting, or advisory services; or operational audits.

2. **General Standards**

    a. **Training and Proficiency** The practitioner must have adequate technical training and proficiency to perform the attestation engagement.

    b. **Adequate Knowledge of the Subject Matter** The practitioner must have adequate knowledge in the subject matter.

    c. **Suitability and Availability of Criteria** The practitioner must have reason to believe that the subject matter is capable of evaluation against criteria that are suitable and available to users.

    d. **Independence** The practitioner must maintain independence in mental attitude in all matters relating to the engagement.

    e. **Due Professional Care** The practitioner must exercise due professional care in the planning and performance of the engagement and the preparation of the report.

Exercise 14.1 - Attestation Standards

The general standard regarding the suitability and availability of criteria for an attest engagement performed in accordance with the AICPA's Statements on Standards for Attestation Engagements (SSAE) requires that suitable criteria have all of the following attributes **except**

a. Objectivity
b. Measurability
c. Relevance
d. Acceptance

Answer d. is not one of the required attributes for suitable criteria for an attest engagement. There are four; the one missing from above is *completeness*. See the descriptions of each attribute in the supplemental material at the end of this chapter.

3. **Fieldwork Standards**

   a. **Planning and Supervision** The practitioner must adequately plan the work and must properly supervise any assistants.

   b. **Obtaining Sufficient Evidence** The practitioner must obtain appropriate sufficient evidence to provide a reasonable basis for the conclusion that is expressed in the report.

4. **Reporting Standards**

   a. **Identification of Subject Matter or Assertion** The practitioner must identify the subject matter or the assertion being reported on and state the character of the engagement in the report.

   b. **Conclusion** The practitioner must state the practitioner's conclusion about the subject matter or the assertion in relation to the criteria against which the subject matter was evaluated in the report.

   c. **Disclosure of Reservations** The practitioner must state all of the practitioner's significant reservations about the engagement, the subject matter, and, if applicable, the assertion related thereto in the report.

   d. **Restrictions** The practitioner must state in the report that the report is intended solely for the information and use of the specified parties under the following circumstances:

      (1) When the criteria used to evaluate the subject matter are determined by the practitioner to be appropriate only for a limited number of parties who either participated in their establishment or can be presumed to have an adequate understanding of the criteria

      (2) When the criteria used to evaluate the subject matter are available only to specified parties

      (3) When reporting on subject matter and a written assertion has not been provided by the responsible party

      (4) When the report is on an attestation engagement to apply agreed-upon procedures to the subject matter

Report Components
Standard reports for examinations and reviews share some elements:

1. **Title** The title includes the word *independent*, a signature, and a date.

2. **Responsible Party's Responsibility** A statement that the subject matter [or, assertion] is the responsible party's responsibility.

3. **Identification** An identification of the subject matter [or, assertion] and the responsible party. If the assertion doesn't accompany the practitioner's report, the first paragraph of the report also contains a statement of the assertion.

4. **Restriction** A statement restricting the report use to specified parties

Conclusions

Three types of conclusions can be issued by the accountant:

1. **Examination** Examinations represent the highest level of assurance. They usually include: search; verification; inquiry; and analysis procedures.

   Examinations Engagements are of two types:

   a. **Assertion-Based Examination Engagements**

      (1) Report When CPAs are engaged to express an opinion as the result of an attestation engagement, they should state clearly whether: (1) management's assertion is presented (or fairly stated), in all material respects, based on (or in conformity with) the established/stated criteria, or (2) the subject matter of the assertion is based on (or in conformity with) the established or stated criteria in all material respects.

      (2) Modifications Reports expressing a positive opinion on the reliability of an assertion may be qualified or modified for an aspect of the subject matter, assertion, or the engagement. In addition, examination reports may emphasize certain matters relating to the attest engagement, subject matter, or assertion. Remember, if deviations from the criteria or material misstatements exist, the practitioner should modify the report, directly expressing an opinion on the subject matter, rather than the assertion.

   b. **Direct Examination Engagements**

      SSAE 21 allows entities that do not provide an assertion about whether the underlying subject matter is in accordance with the criteria, to undergo an examination engagement, thus providing the public with confidence in information about the underlying subject matter. These engagements are called direct examination engagement.

Exhibit 14.1 - Examination Report on a Subject Matter

Independent Accountant's Report

[Appropriate Addressee]

We have examined the [*identify the subject matter—for example, the accompanying schedule of investment returns of XYZ Company for the year ended December 31, 20XX*]. XYZ Company's management is responsible for the schedule of investment returns. Our responsibility is to express an opinion based on our examination.

Our examination was conducted in accordance with attestation standards established by the AICPA. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether [identify the subject matter, for example, the schedule of investment returns] is in accordance with (or based on) the criteria, in all material respects. An examination involves performing procedures to obtain evidence about [identify the subject matter, for example, the schedule of investment returns]. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risks of material misstatement of [identify the subject matter, for example, the schedule of investment returns], whether due to fraud or error. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion

We are required to be independent and to meet our other ethical responsibilities in accordance with relevant ethical requirements relating to the engagement.

[Include a description of significant inherent limitations, if any, associated with the measurement or evaluation of the subject matter against the criteria.] [Additional paragraphs may be added to emphasize certain matters relating to the attestation engagement or the subject matter.] In our opinion, [identify the subject matter, for example, the schedule of investment returns of XYZ Company for the year ended December 31, 20XX, or the schedule of investment returns referred to above], is presented in accordance with (or based on) [identify the criteria, for example, the ABC criteria set forth in Note 1], in all material respects. [Practitioner's signature] [Practitioner's city and state] [Date of practitioner's report]

[Include a description of significant inherent limitations, if any, associated with the measurement or evaluation of the subject matter against the criteria.] [Additional paragraphs may be added to emphasize certain matters relating to the attestation engagement or the subject matter.] In our opinion, [identify the subject matter, for example, the schedule of investment returns of XYZ Company for the year ended December 31, 20XX, or the schedule of investment returns referred to above], is presented in accordance with (or based on) [identify the criteria, for example, the ABC criteria set forth in Note 1], in all material respects.

[Practitioner's signature]

[Practitioner's city and state]

[Date of practitioner's report]

2. **Review** A review report provides limited assurance. They usually include: inquiry and analysis procedures. The CPA's report states whether any information came to the CPA's attention on the basis of the work performed that indicates that the subject matter is materially misstated or divergent from criteria; or that assertions are not presented in all material respects in conformity with criteria. The report: (a) indicates that the work performed was less in scope than an examination, (b) disclaims a positive opinion on the assertions, and (c) contains a statement of limitations on the use of the report when it has been prepared in conformity with specified criteria that have been agreed upon by the specified parties because it is intended solely for specified parties.

Exhibit 14.2 - Review Report on an Assertion About a Subject Matter (Restricted)

Independent Accountant's Report

[Appropriate Addressee]

We have reviewed [identify the subject matter, for example, the accompanying schedule of investment returns of XYZ Company for the year ended December 31, 20XX]. XYZ Company's management is responsible for [identify the subject matter, for example, presenting the schedule of investment returns] in accordance with (or based on) [identify the criteria, for example, the ABC criteria set forth in Note 1]. Our responsibility is to express a conclusion on [identify the subject matter, for example, the schedule of investment returns] based on our review.

Our review was conducted in accordance with attestation standards established by the AICPA. Those standards require that we plan and perform the review to obtain limited assurance about whether any material modifications should be made to [identify the subject matter, for example, the schedule of investment returns] in order for it to be in accordance with (or based on) the criteria. The procedures performed in a review vary in nature and timing from and are substantially less in extent than, an examination, the objective of which is to obtain reasonable assurance about whether [identify the subject matter, for example, the schedule of investment returns] is in accordance with (or based on) the criteria, in all material respects, in order to express an opinion. Accordingly, we do not express such an opinion. Because of the limited nature of the engagement, the level of assurance obtained in a review is substantially lower than the assurance that would have been obtained had an examination been performed. We believe that the review evidence obtained is sufficient and appropriate to provide a reasonable basis for our conclusion.

We are required to be independent and to meet our other ethical responsibilities in accordance with relevant ethical requirements related to the engagement.
[Include a description of the work performed as a basis for the practitioner's conclusion.]
[Include a description of significant inherent limitations, if any, associated with the measurement or evaluation of the subject matter against the criteria.]
[Additional paragraphs may be added to emphasize certain matters relating to the attestation engagement or the subject matter.]

Based on our review, we are not aware of any material modifications that should be made to [identify the subject matter, for example, the accompanying schedule of investment returns of XYZ Company for the year ended December 31, 20XX], in order for it be in accordance with (or based on) [identify the criteria, for example, the ABC criteria set forth in Note 1].

[Practitioner's signature]
[Practitioner's city and state]
[Date of practitioner's report]

Editor's Note: Although suitable criteria exist for the subject matter, the report in exhibit 14.2 is restricted as to use because the criteria are available only to specified parties; otherwise, the paragraph restricting the use of the report would be omitted.

3. **Agreed-upon Procedures** No assurance is provided, but procedures and findings are listed. See next section for more detailed information.

Agreed-Upon Procedures

Definition

An agreed-upon procedures engagement is one in which a practitioner is engaged to issue a report of findings based on specific procedures performed on subject matter; a written assertion is not required. The nature, extent, and timing of procedures may vary widely. The specified parties assume responsibility for the sufficiency of the procedures since they best understand their own needs.

Required Conditions

To satisfy the agreement and responsibility requirements listed here, the practitioner ordinarily communicates directly with, and obtains affirming acknowledgments from, each specified party.

1. **Independence** The practitioner must be independent

2. **Responsibility** The client takes responsibility for the sufficiency of the agreed-upon procedures for their purpose, or a third party assumes responsibility for the subject matter

3. **Procedures and Criteria** The specified parties and the practitioner agree upon procedures to be performed by the practitioner, the criteria to be used in the determination of findings, and any materiality limits

4. **Measurement** The specific subject matter is subject to reasonably consistent measurement. The procedures are expected to result in reasonably consistent findings using the criteria. Evidential matter related to the specific subject matter is expected to exist to provide a reasonable basis for expressing findings in the practitioner's report

5. **Restricted Report** Use of the report is restricted to the specified parties

6. **Disclosure** For engagements involving prospective financial information, the prospective financial statements must include a summary of significant assumptions

7. **Specialist** The specified parties and the practitioner must agree explicitly on the involvement of a specialist.

8. **Internal Auditors and Other Personnel** The agreed-upon procedures are to be performed entirely by the practitioner and any assisting specialists; however, internal auditors or other client personnel may prepare schedules or provide other information for the practitioner's use in performing the procedures.

Exercise 14.2 - Agreed-Upon Procedures Engagement

When performing an agreed-upon procedures engagement, the practitioner

a. And the specified parties should explicitly agree to the involvement of the specialist
b. Is not required to be independent
c. May issue a general-use report
d. Makes the determination regarding materiality limits for reporting purposes

Answer a. is correct. The practitioner is required to be independent. Use of the report is required to be restricted to specified parties. Where applicable, the practitioner and the specified parties agree on any materiality limits for reporting purposes.

Report Components

The practitioner reports all findings from applying the agreed-upon procedures. The concept of materiality is inapplicable unless the specified parties and the practitioner have established a definition of materiality. The practitioner should **not** provide negative assurance about whether the subject matter or the assertion is fairly stated based on the criteria. For example, the practitioner should **not** include a statement in the report that "nothing came to my attention that caused me to believe that the [*identify subject matter*] is not presented based on [or the assertion is not fairly stated based on] [*identify criteria*]." The practitioner's report should contain the following elements:

1. A title that includes the word independent to clearly indicate that it is the report of an independent accountant.
2. An appropriate addressee as required by the circumstances of the engagement.
3. Identification of the engaging party.
4. Identification of the subject matter to which the procedures have been applied.
5. Identification of the responsible party, including a statement that the responsible party is responsible for the subject matter. When the engaging party is not the responsible party and identification of the responsible party and its responsibility for the subject matter is based solely on representations received from the engaging party, the practitioner's agreed-upon procedures report should include a statement to that effect.
6. A statement that the engaging party acknowledged that the procedures performed are appropriate to meet the intended purpose of the engagement.
7. An identification of the intended purpose of the engagement in sufficient detail to enable the user to understand the nature of the work performed.
8. A statement that the practitioner's report may not be suitable for any other purpose
9. A statement that the procedures performed may not address all the items of interest to a user of the report and may not meet the needs of all users of the report and, as such, users are responsible for determining whether the procedures performed are appropriate for their purposes.
10. A statement that an agreed-upon procedures engagement involves the practitioner performing specific procedures that the engaging party has agreed to and acknowledged to be appropriate for the intended purpose of the engagement and reporting on findings based on the procedures performed.
11. A description of the procedures performed detailing the nature and extent, and if applicable, the timing, of each procedure.
12. A description of the findings from each procedure performed, including sufficient details on exceptions found.
13. If applicable, a description of any specified threshold established by the engaging party for reporting exceptions.
14. A statement that the agreed-upon procedures engagement was conducted in accordance with attestation standards established by the AICPA.
15. A statement that the practitioner was not engaged to and did not conduct an examination or review, the objective of which would be the expression of an opinion or conclusion, respectively, on the subject matter.
16. A statement that the practitioner does not express such an opinion or conclusion.
17. A statement that had the practitioner performed additional procedures; other matters might have come to the practitioner's attention that would have been reported.
18. A statement that the practitioner is required to be independent of the responsible party and to meet the practitioner's other ethical responsibilities, in accordance with the relevant ethical requirements relating to the agreed-upon procedures engagement.
19. If applicable, a description of the nature of the assistance provided by a practitioner's external specialist, as discussed in paragraphs
20. When applicable, reservations or restrictions concerning procedures or findings.
21. The manual or printed signature of the practitioner's firm.
22. The city and state where the practitioner's report is issued.
23. The date of the report. The practitioner's report should be dated no earlier than the date on which the practitioner completed the procedures and determined the findings

Report on Agreed-Upon Procedures

Independent Accountant's Report
on Applying Agreed-Upon Procedures

[Appropriate Addressee]

We have performed the procedures enumerated below on [identify the subject matter, for example, the accompanying Statement of Investment Performance Statistics of XYZ Fund for the year ended December 31, 20X1]. [The responsible party, for example, XYZ Fund] is responsible for [the subject matter].

[The engaging party, for example, XYZ Fund] has agreed to and acknowledged that the procedures performed are appropriate to meet the intended purpose of [identify the intended purpose of the engagement, for example, assisting users in understanding the Statement of Investment Performance Statistics of XYZ Fund for the year ended December 31, 20X1]. This report may not be suitable for any other purpose. The procedures performed may not address all the items of interest to a user of this report and may not meet the needs of all users of this report and, as such, users are responsible for determining whether the procedures performed are appropriate for their purposes.

The procedures and the associated findings are as follows:

[Include paragraphs to describe the procedures performed detailing the nature and extent, and if applicable, the timing, of each procedure and to describe the findings from each procedure performed, including sufficient details on exceptions found.]

We were engaged by [the engaging party, for example, XYZ Fund] to perform this agreed-upon procedures engagement and conducted our engagement in accordance with attestation standards established by the AICPA. We were not engaged to and did not conduct an examination or review engagement, the objective of which would be the expression of an opinion or conclusion, respectively, on [identify the subject matter, for example, the accompanying Statement of Investment Performance Statistics of XYZ Fund for the year ended December 31, 20X1]. Accordingly, we do not express such an opinion or conclusion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

We are required to be independent of XYZ Fund and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements related to our agreed-upon procedures engagement.

[Additional paragraphs may be added to describe other matters.]
[Signature of the practitioner's firm]
[City and state where the practitioner's report is issued]
[Date of the practitioner's report]

Other Requirements

1. **Explanatory Language** The practitioner may include explanations about issues such as the following: (a) disclosures of stipulated facts, assumptions, or interpretations used in applying procedures; (b) condition of records, controls, or data; (c) a statement that the practitioner has no responsibility to update the report.

2. **Scope Limitations** When the situation imposes restrictions on the performance of procedures, the practitioner should obtain agreement from the specified parties to modify the agreed-upon procedures, describe any restrictions in the report, or withdraw from the engagement.

3. **Outside Knowledge** The practitioner need not perform additional procedures, but if a matter comes to the practitioner's attention that significantly contradicts the subject matter, the practitioner should include this matter in the report.

4. **Request to Change Engagement Type** If the practitioner concludes, based on professional judgment, that there is reasonable justification to change the engagement, and provided the practitioner complies with the standards applicable to that engagement, the practitioner issues the report appropriate to the new engagement type. This report should not include reference to either the original engagement or performance limitations that resulted in a different engagement.

Financial Forecasts and Projections

Guidance

AT 301, *Financial Forecasts and Projections*, establishes guidance concerning performance and reporting for engagements to examine, compile, or apply agreed-upon procedures to prospective financial statements (PFS). Pro Forma financial statements show what past financial results would have been if something had been different; they are not considered to be PFS.

Definitions

1. **Financial Forecast** PFS that present, to the best of the responsible party's knowledge and belief, an entity's expected financial position, results of operations, and cash flows. A financial forecast may be expressed in specific monetary amounts as a single-point estimate of forecasted results or as a range.

2. **Financial Projection** PFS that present, to the best of the responsible party's knowledge and belief, given one or more hypothetical assumptions, an entity's expected financial position, results of operations, and cash flows. A financial projection sometimes is prepared to present one or more hypothetical courses of action for evaluation. It answers the question, "What would happen if…?" It may also contain a range.

Restrictions

1. **General Use** Refers to the use of PFS by persons with whom the responsible party is not negotiating directly. Since users are unable to ask questions of the responsible party, the presentation most useful to them is one that portrays, to the best of the responsible party's knowledge and belief, the expected results. *Only a financial forecast is appropriate for general use*.

2. **Limited Use** Refers to the use of PFS by the responsible party alone or by the responsible party and third parties with whom the responsible party is negotiating directly. Third-party recipients of PFS intended for limited use can ask questions of the responsible party and directly negotiate terms with it. Any type of PFS that would be useful in the circumstances normally is appropriate for limited use. The presentation may be a financial forecast or a financial projection.

Report Components

1. **Formats** The practitioner may perform a compilation report, an examination (usually to be used by a third party), or an agreed-upon procedures report. A review of PFS is not permitted.

2. **Common Elements** Standard reports for the three engagements share some elements:

   a. A caveat that the prospective results might not be achieved

   b. A statement that the CPA assumes no responsibility to update the report for events and circumstances occurring after the date of the report

   c. The practitioner's signature

   d. The date of the completion of the CPA's procedures

3. **Compilation of PFS** Independence is **not** necessary for a compilation engagement.

   a. A compilation of PFS involves:

      (1) Assembling the PFS based on the responsible party's assumptions

      (2) Performing the required compilation procedures, including reading the statements and considering whether they are appropriate and are presented in conformity with AICPA presentation guidelines

      (3) Issuing a compilation report.

   b. **Limited Procedures** A compilation is not intended to provide assurance on the PFS or the assumptions underlying such statements. Because of the limited nature of the CPA's procedures, a compilation does not provide assurance that the CPA will become aware of significant matters that might be disclosed by more extensive procedures.

   c. **Assumptions** Since this summary is essential to the reader's understanding of PFS, the CPA should **not** compile PFS that exclude disclosure of the summary of significant assumptions. Also, the CPA should **not** compile a financial projection that omits:

      (1) An identification of the hypothetical assumptions

      or

      (2) A description of the limitations on the usefulness of the presentation.

   d. **Obviously Inappropriate** The practitioner should consider when representations or other information appear to be obviously inappropriate, incomplete, etc., and if so, should attempt to clarify the matter. If the matter is not clarified, the practitioner ordinarily withdraws from the engagement.

4. **Compilation Reports**

   a. In addition to the previously discussed elements, the standard compilation report includes:

      (1) Identification of the PFS presented by the responsible party

      (2) A statement that the CPA has compiled the PFS in accordance with attestation standards established by the AICPA

      (3) A statement that a compilation is limited in scope and does not enable the CPA to express an opinion or any other form of assurance on the PFS or the assumptions

Exhibit 14.4 - Compilation Report on a Forecast / Projection

> We have compiled the accompanying forecasted [projected] balance sheet, statements of income, retained earnings, and cash flows of XYZ Company as of December 31, 20X1, and for the year then ending, in accordance with attestation standards established by the American Institute of Certified Public Accountants. [*If for a projection add:* The accompanying projection was prepared for *(state special purpose, for example, “the purpose of negotiating a loan to expand XYZ Company’s plant”)*.]
>
> A compilation is limited to presenting in the form of a forecast [projection] information that is the representation of management and does not include evaluation of the support for the assumptions underlying the projection. We have not examined the forecast [projection] and, accordingly, do not express an opinion or any other form of assurance on the accompanying statements or assumptions. Furthermore, [*If for a projection, add:* even if (*describe hypothetical assumption, for example, “the loan is granted and the plant is expanded,”*)] there will usually be differences between the forecasted [projected] and actual results, because events and circumstances frequently do not occur as expected, and those differences may be material. We have no responsibility to update this report for events and circumstances occurring after the date of this report.
>
> <Additional paragraph for a projection>
>
> The accompanying projection and this report are intended solely for the information and use of [*identify specified parties, for example*, “*XYZ Company and DEF National Bank*”] and is not intended to be and should not be used by anyone other than these specified parties.
>
> [*Signature*]
>
> [*Date*]

b. **Projection Presentation** The practitioner’s report should include a separate paragraph that describes the limitations on the usefulness of the presentation.

c. **Range** When the PFS contain a range, the practitioner’s report also should include a separate paragraph that states that the responsible party has elected to portray the expected results of one or more assumptions as a range.

d. **Emphasis** In some circumstances, a CPA may wish to expand the report to emphasize a matter regarding the PFSs. Such information may be presented in a separate paragraph of the CPA’s report. However, the CPA should exercise care that emphasizing such a matter does not give the impression that the CPA is expressing assurance or expanding the degree of responsibility the CPA is taking regarding such information.

e. **Historical Financial Information** PFS may be included in a document that also includes historical financial statements (HFS) with a related practitioner’s report. Additionally, HFS may be summarized and presented with PFS for comparative purposes.

f. **Independence *Not* Required** A CPA may compile PFS for an entity with respect to which a CPA is not independent. When the CPA is not independent, the CPA should include the following as a separate paragraph in the report, “We are not independent with respect to XYZ Company.” The CPA is permitted, but not required, to disclose (in the same paragraph) the reason(s) for the independence impairment. If the CPA elects to do this, *all* the reasons should be included.

5. **Examination of PFS** An examination of PFS is substantially more in scope and responsibility than a compilation or an agreed-upon procedures engagement. The practitioner must be independent, and follow the general, fieldwork, and reporting standards outlined in AT 101 as applicable to examination engagements.

   a. **Examination Reports** As a result of the examination, the CPA has a basis for reporting on whether, in the CPA’s opinion:

      (1) The assumptions provide a reasonable basis for the responsible party’s forecast or projection, given the hypothetical assumptions

      (2) Whether the PFS are presented in accordance with AICPA guidelines.

b. **Standard Report** In addition to the previously listed elements, the CPA's standard report on an examination of PFS includes the following:

  (1) A title which includes independent; a signature, and a date

  (2) Identification of the PFS presented

  (3) Identification of the responsible parties and a statement that the PFS are the responsibility of said parties

  (4) A statement that the practitioner's responsibility is to express an opinion on the PFS based on an examination

  (5) A brief description of the nature of an examination of PFS

  (6) The CPA's opinion that the PFS are presented in accordance with AICPA presentation guidelines and that the underlying assumptions provide a reasonable basis for the forecast (or projection, given the hypothetical assumptions).

c. **Projection** The CPA should express an opinion on whether the assumptions provide a reasonable basis for the projection given the hypothetical assumptions. A reference should be included to the hypothetical assumption(s), and the report should include a separate paragraph that limits the use to specified parties.

d. **Emphasis** The practitioner may wish to emphasize a matter regarding the PFS, but issue an unmodified opinion. The practitioner may present other information and comments, such as explanatory comments or other informative material, in a separate paragraph of the report.

e. **Evaluation Based in Part on Report of Another Accountant** When the principal practitioner decides to refer to the report of another CPA as a basis, in part, for the principal's own opinion, the principal practitioner should disclose that fact in stating the scope of the examination and refer to the report of the other CPA in expressing the opinion. Such a reference indicates the division of responsibility for the performance of the examination.

f. **Part of Larger Engagement** When the practitioner's examination of PFS is part of a larger engagement, for example, a financial feasibility study or business acquisition study, it is appropriate to expand the report on the examination of the PFS to describe the entire engagement.

Exhibit 14.5 - Standard Report on an Examination of Forecast / Projection

Independent Accountant's Report

We have examined the accompanying forecasted [projected] balance sheet, statements of income, retained earnings, and cash flows of XYZ Company as of December 31, 20X1, and for the year then ending. XYZ Company is responsible for the forecast [*projection*]. Our responsibility is to express an opinion on the forecast [*projection*] based on our examination.

Our examination was made in accordance with attestation standards established by the American Institute of Certified Public Accountants and, accordingly, included such procedures as we considered necessary to evaluate both the assumptions used by management and the preparation and presentation of the forecast [projection]. We believe our examination provides a reasonable basis for our opinion.

<Opinion paragraph for a forecast>

In our opinion, the accompanying forecast is presented in conformity with guidelines for presentation of a forecast established by the American Institute of Certified Public Accountants, and the underlying assumptions provide a reasonable basis for management's forecast. However, there will usually be differences between the forecasted and actual results, because events and circumstances frequently do not occur as expected, and those differences may be material. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

<Opinion paragraph for a projection>

In our opinion, the accompanying projection is presented in conformity with guidelines for presentation of a projection established by the American Institute of Certified Public Accountants, and the underlying assumptions provide a reasonable basis for management's projection [*describe the hypothetical assumption, for example, "assuming the granting of the requested loan to expand XYZ Company's plant as described in the summary of significant assumptions."*]. However, even if [*describe hypothetical assumption, for example, "the loan is granted and the plant is expanded,"*] there will usually be differences between the projected and actual results, because events and circumstances frequently do not occur as expected, and those differences may be material. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

<Additional paragraph for a projection report>

The accompanying projection and this report were prepared for [*identify specified parties, for example, "XYZ Company and DEF National Bank"*] and are not intended to be and should not be used by anyone other than these specified parties.

[*Signature*]

[*Date*]

g. Qualified Opinion In a qualified report, the CPA states, in a separate paragraph, all the substantive reasons for modifying the opinion, and describes the departure from AICPA presentation guidelines. The opinion includes the words *except* or *exception* as the qualifying language and refers to the separate explanatory paragraph.

h. Adverse Opinion In an adverse opinion, the CPA states, in a separate paragraph, all the substantive reasons for the adverse opinion. The opinion should state that the presentation is not in conformity with presentation guidelines and should refer to the explanatory paragraph. When applicable, the opinion paragraph also should state that, in the accountant's opinion, the assumptions do not provide a reasonable basis for the prospective financial statements.

(1) If the presentation, including the summary of significant assumptions, fails to disclose assumptions that, at the time, appear to be significant, the CPA should describe the assumptions in the report and issue an adverse opinion.

(2) The CPA should not examine a presentation that omits all disclosures of assumptions. Also, the CPA should not examine a financial projection that omits:

(a) An identification of the hypothetical assumptions

or

(b) A description of the limitations on the usefulness of the presentation.

i. **Disclaimer of Opinion** The CPA's report should indicate, in a separate paragraph, the respects in which the examination did not comply with standards for an examination. The CPA should state that the scope of the examination was not sufficient to enable an opinion to be expressed concerning the presentation or the underlying assumptions, and the CPA's disclaimer of opinion should include a direct reference to the explanatory paragraph. When there is a scope limitation and the CPA also believes that there are material departures from the presentation guidelines, those departures should be described in the CPA's report.

6. Agreed-Upon Procedures

a. **Standards** The guidance in AT 101 (including general, fieldwork, and reporting standards) and AT 201 applies to engagements to apply agreed-upon procedures to PFS. This includes the extent of procedures and agreement among the parties regarding the procedures.

b. **Conditions** A practitioner may accept an engagement to apply agreed-upon procedures to PFS provided that:

(1) The practitioner is independent

(2) The practitioner and the specified users agree upon the procedures and criteria

(3) The specified users take responsibility for the sufficiency of the agreed-upon procedures for their purposes

(4) The PFS include a summary of significant assumptions

(5) The PFS are subject to reasonably consistent evaluation against criteria that are suitable and available to the specified parties

(6) The procedures are expected to result in reasonably consistent findings using the criteria

(7) Evidential matter related to the PFS is expected to exist to provide a reasonable basis for expressing the findings in the practitioner's report

(8) Where applicable, the practitioner and the specified user agree on any materiality limits for reporting purposes

(9) Use of the report is restricted to the specified parties.

c. **Reports on Results** When the CPA reports on the results of applying agreed-upon procedures, the CPA should not express any form of negative assurance on the PFS. In addition to the previously discussed elements, the practitioner's report must include:

- A title that includes the word independent
- Identification of the specified parties
- Reference to the PFS and the character of the engagement
- A statement that the procedures performed were those agreed to by the specified parties identified in the report
- Identification of the responsible party and a statement that the PFS are the responsible party's responsibility

- A statement that the engagement was conducted in accordance with attestation standards established by the AICPA
- A statement that the sufficiency of the procedures is solely the responsibility of the specified parties and a disclaimer of responsibility for the sufficiency of those procedures
- A list of (or reference to) procedures performed and related findings
- Where applicable, a description of any agreed-upon materiality limits
- A statement that the practitioner was not engaged to and did not conduct an examination of PFS
- A disclaimer of opinion on whether the presentation of the PFS is in conformity with AICPA presentation guidelines and on whether the underlying assumptions provide a reasonable basis for the forecast or a reasonable basis for the projection given the hypothetical assumptions
- A statement that if the practitioner had performed additional procedures, other matters might have come to his or her attention that would have been reported
- A restriction on the use of the report, because it is intended to be used solely by the specified parties, and should not be used by others
- Where applicable, reservations or restrictions concerning procedures or findings
- Where applicable, a description of assistance provided by a specialist

Pro Forma Financial Information

Purpose

Pro forma financial information is used to show what the significant effects on historical financial information might have been if a consummated or proposed transaction or event had occurred at an earlier date. Pro forma financial information generally is used to show the effects of transactions such as a business combination, a change in capitalization, the disposition of a significant portion of a business, a change in the form of business organization, or the proposed sale of securities and the application of proceeds.

1. **Examination Objective** Examination procedures applied to pro forma financial information are to provide reasonable assurance as to whether the following exists:

   a. Management's assumptions provide a reasonable basis for presenting the significant effects directly attributable to the underlying transaction or event

   b. The related pro forma adjustments give appropriate effect to those assumptions

   c. The pro forma column reflects the proper application of those adjustments to the historical financial statements

2. **Review Objective** Review procedures are to provide negative assurance as to whether any information came to the CPA's attention to cause a belief that: (a) management's assumptions do not provide a reasonable basis for presenting the significant effects directly attributable to the transaction or event; (b) the related pro forma adjustments do not give appropriate effect to those assumptions; and (c) the related pro forma column does not reflect the proper application of those adjustments to the historical financial statements.

Guidance

Engagements to report on an examination or review of pro forma financial information are covered by AT 101 and AT 401, *Reporting on Pro Forma Financial Information*.

Requirements

A CPA may agree to report on an examination or a review of pro forma financial information under certain conditions. The presentation should indicate that the pro forma information should be read in conjunction with the historical data, make reference to the financial statements from which the historical data is derived, and state

whether those statements were audited or reviewed. The presentation also should state that the pro forma financial information does not necessarily indicate the results that would have been attained had the transaction actually taken place earlier.

1. **Procedures** The procedures the CPA applies to the assumptions and pro forma adjustments for either an examination or a review engagement, other than those applied to the historical financial statements, include:

   a. Obtain an understanding of the underlying transaction or event; obtain a level of knowledge of each significant constituent part of the combined entity in a business combination; and discuss with management its assumptions regarding the effects of the transaction or event.

   b. Evaluate whether pro forma adjustments are included for all significant effects directly attributable to the transaction or event.

   c. Obtain sufficient evidence in support of adjustments. The evidence required to support the level of assurance given is a matter of professional judgment.

   d. Evaluate whether management's assumptions that underlie the pro forma adjustments are presented in a sufficiently clear and comprehensive manner.

   e. Determine that computations of pro forma adjustments are mathematically correct.

   f. Obtain written representations from management acknowledging responsibility for the assumptions used in determining the pro forma adjustments.

2. **Report** The report on pro forma financial information may be added to the CPA's report on historical financial information, or it may appear separately.

   a. **Contents** In addition to the previously listed items, a report on pro forma financial information includes the following: a separate paragraph explaining the objective of pro forma financial information and its limitations; and reference to the financial statements from which the historical financial information is derived and any modification in the practitioner's report on the historical financial information.

   b. **Date** The practitioner's report on pro forma financial information should be dated as of the completion of the appropriate procedures. If the reports are combined and the date of completion of the procedures for the examination or review of the pro forma financial information is after the date of completion of the fieldwork for the audit or review of the historical financial information, the combined report should be dual-dated.

   c. **Modifications** Restrictions on the scope of the engagement, significant uncertainties about the assumptions that could affect the transaction or event materially, reservations about the propriety of the assumptions and the conformity of the presentation with those assumptions (including inadequate disclosure of significant matters), or other reservations may require the CPA to qualify the opinion, render an adverse opinion, disclaim an opinion, or withdraw from the engagement. The CPA should disclose all substantive reasons for any report modifications. Uncertainty as to whether the transaction or event will be consummated ordinarily would not require a report modification.

   d. **Examination** In addition to the previously listed elements, an examination report also includes the following:

      (1) **Reference** A statement that the historical financial statements were audited.

      (2) **Responsibility** A statement that the practitioner's responsibility is to express an opinion on the pro forma financial information based on his or her examination.

      (3) **Standards** A statement that the examination was made in accordance with attestation standards established by the AICPA, and accordingly, included such procedures as the practitioner considered necessary in the circumstances.

(4) Basis A statement that the practitioner believes the examination provides a reasonable basis for his or her opinion.

(5) Opinion The practitioner's opinion as to whether management's assumptions provide a reasonable basis for presenting the significant effects directly attributable to the transaction or event, whether the related pro forma adjustments give appropriate effect to those assumptions, and whether the pro forma column reflects the proper application of those adjustments to the historical financial statements.

e. Review In addition to the previously listed elements, a review report also includes the following:

(1) Reference A statement as to whether the historical financial statements were audited or reviewed.

(2) Disclaimer A statement that a review is substantially less in scope than an examination, the objective of which is the expression of an opinion on the pro forma financial information, and accordingly, the practitioner does not express such an opinion.

3. Conclusion The practitioner's conclusion as to whether any information came to the CPA's attention to cause a belief that management's assumptions do not provide a reasonable basis for presenting the significant effects directly attributable to the transaction or event, or that the related pro forma adjustments do not give appropriate effect to those assumptions, or that the pro forma column does not reflect the proper application of those adjustments to the historical financial statements.

Exhibit 14.6 - Report on an Examination of Pro Forma Financial Information

Independent Accountant's Report

We have examined the pro forma adjustments reflecting the transaction [*or event*] described in Note 1 and the application of those adjustments to the historical amounts in [*the assembly of*] the accompanying pro forma condensed balance sheet of X Company as of December 31, 20X1, and the pro forma condensed statement of income for the year then ended. The historical condensed financial statements are derived from the historical financial statements of X Company, which were audited by us, and of Y Company, which were audited by other accountants, appearing elsewhere herein [*or incorporated by reference*]. Such pro forma adjustments are based upon management's assumptions described in Note 2. X Company's management is responsible for the pro forma financial statements. Our responsibility is to express an opinion on the pro forma financial information based on our examination.

Our examination was made in accordance with attestation standards established by the American Institute of Certified Public Accountants and, accordingly, included such procedures as we considered necessary under the circumstances. We believe our examination provides a reasonable basis for our opinion.

The objective of this pro forma financial information is to show what the significant effects on the historical financial information might have been had the transaction [*or event*] occurred at an earlier date. However, the pro forma condensed financial statements are not necessarily indicative of the results of operations or related effects on financial position that would have been attained had the above-mentioned transaction [*or event*] occurred earlier.

[*Additional paragraph(s) may be added to emphasize certain matters relating to the engagement.*]

In our opinion, management's assumptions provide a reasonable basis for presenting the significant efforts directly attributable to the above-mentioned transaction [*or event*] described in Note 1, the related pro forma adjustments give appropriate effect to those assumptions, and the pro forma column reflects the proper application of those adjustments to the historical financial statement amounts in the pro forma condensed balance sheet as of December 31, 20X1, and the pro forma condensed statement of income for the year then ended.

[*Signature*]

[*Date*]

Exhibit 14.7 - Report on a Review of Pro Forma Financial Information

Independent Accountant's Report

We have reviewed the pro forma adjustments reflecting the transaction [*or event*] described in Note 1 and the application of those adjustments to the historical amounts in [*the assembly of*] the accompanying pro forma condensed balance sheet of X Company as of March 31, 20X2, and the pro forma condensed statement of income for the three months then ended. These historical condensed financial statements are derived from the historical unaudited financial statements of X Company, which were reviewed by us, and of Y Company, which were reviewed by other accountants, appearing elsewhere herein [*or incorporated by reference*]. Such pro forma adjustments are based on management's assumptions as described in Note 2. X Company's management is responsible for the pro forma financial statements.

Our review was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. A review is substantially less in scope than an examination, the objective of which is the expression of an opinion on management's assumptions, the pro forma adjustments, and the application of those adjustments to historical financial information. Accordingly, we do not express such an opinion.

<Same third paragraph as in an examination report.>

[*Additional paragraph(s) may be added to emphasize certain matters relating to the engagement.*]

Based on our review, nothing came to our attention that caused us to believe that management's assumptions do not provide a reasonable basis for presenting the significant effects directly attributable to the above-mentioned transaction [*or event*] described in Note 1, that the related pro forma adjustments do not give appropriate effect to those assumptions, or that the pro forma column does not reflect the proper application of those adjustments to the historical financial statement amounts in the pro forma condensed balance sheet as of March 31, 20X2, and the pro forma condensed statement of income for the three months then ended.

[*Signature*]

[*Date*]

Examination of Internal Control Over Financial Reporting

AT 501, An Examination of an Entity's Internal Control Over Financial Reporting That Is Integrated with an Audit of Its Financial Statements, establishes requirements and provides guidance for the performance of an examination of a nonissuer's internal control over financial reporting (internal control) that is integrated with an audit of financial statements. (An auditor should **not** accept an engagement to review an entity's internal control or a written assertion thereon.) It aligns the definitions and related guidance for evaluating deficiencies in internal control with PCAOB AS 5, An Audit of Internal Control Over Financial Reporting That is Integrated with an Audit of Financial Statements (see chapter 11).

Overview

1. **Applicability** AT 501 does not provide guidance for the following engagements:

   a. As covered under AT 101, *Attest Engagements*:

   b. Performance of agreed-upon procedures on controls covered under AT 201, *Agreed-Upon Procedures Engagements*

   c. Examining controls over compliance with laws and regulations covered under AT 601, *Compliance Attestation*

   d. Reporting on controls at a service organization covered under AT 801, *Reporting on Controls at a Service Organization*

See the supplemental material at the end of this chapter for the definitions of relevant terms for this topic.

Examination Requirements

Management must: (1) accept responsibility for the effectiveness of the entity's internal control; (2) evaluate the effectiveness of the entity's internal control using suitable and available criteria; (3) support its assertion about the effectiveness of the entity's internal control with sufficient appropriate evidence, including documentation of the controls and their objectives and evidence of monitoring activities; and (4) provide its assertion about the effectiveness of the entity's internal control in a report that accompanies the audit report.

Material Weaknesses

If one or more material weaknesses exist, an entity's internal control cannot be considered effective, thus the auditor must obtain sufficient appropriate evidence to obtain reasonable assurance about whether material weaknesses exist as of the date specified in management's assertion. There may be a material weakness in internal control even when financial statements are not materially misstated. An auditor is not required to search for deficiencies that are less severe than a material weakness.

Integrating the Examination with the Financial Statement Audit

1. **Significant Accounts and Disclosures and Their Relevant Assertions** The significant accounts and disclosures and their relevant assertions and the risk factors used to identify them are the same in the examination of internal control (examination) as in an audit of financial statements (audit).

2. **Tests of Controls** The tests of controls should be designed to achieve the objectives of both engagements simultaneously, i.e., to obtain sufficient appropriate evidence to support the auditor's opinion on internal control as well as the auditor's risk assessment for purposes of the audit. As previously mentioned, for the purposes of the audit, the auditor is not required to test the controls of all relevant assertions as is required in the examination. Consideration of the results of the additional tests of controls performed for the purposes of the examination may affect the auditor's decisions about the nature, timing and extent of substantive procedures and further tests of controls for the purposes of the audit. Obviously, this would be particularly true if deficiencies were identified in the examination.

3. **Substantive Procedures** Likewise, the results of substantive procedures performed for purposes of the audit should be evaluated to determine their effect on the auditor's risk assessments regarding the testing

necessary to form a conclusion about the effectiveness of a control in the examination. Results of substantive tests of particular interest include those related to fraud, illegal acts, related-party transactions, and those that detect misstatements or indicate management bias in making accounting estimates or selecting accounting principles.

4. **Period End Reporting Process** As part of the examination, the auditor should evaluate the procedures that make up the period end reporting process because of its importance to financial reporting and the integrated approach.

5. **Risk Assessment and Materiality** The same materiality should be used for planning and performing both engagements and the same risk assessment process supports both.

6. **Fraud Risk Assessment** The results of the fraud risk assessment for the purposes the audit should be incorporated into the examination. The auditor should consider whether the identified risks due to fraud and inappropriate management override of other controls are sufficiently addressed by the internal control system.

7. **As of Date or Period Covered** The date specified in management's assertion (the as of date of the examination) should correspond to the balance sheet date of the period covered by the financial statements. If management chooses an as of date for the examination that is different than the end of the entity's fiscal year, the examination and the audit should still be integrated. If the auditor is engaged to examine the effectiveness of internal control for a period of time (rather than an as of date), the examination should be integrated with an audit that covers the same period.

8. **Audit Report Date** Because the examination is integrated with the audit, the dates of the reports should be the same.

Communications

Significant deficiencies and material weaknesses should be communicated, in writing by the audit report release date, to the entity's management and those charged with governance, including those previously communicated, but not remediated. In the case where the nature of some matters directs their early communication, even if such significant deficiencies or material weaknesses are remediated during the audit, they should still be included in this formal written communication.

Adverse Opinion

If there a material weakness, the auditor should express an adverse opinion. Under these circumstances, the auditor is prohibited from expressing an opinion on management's assertion and should report directly on the effectiveness of internal control. The auditor should determine the effect of an adverse opinion on the auditor's opinion on the financial statements and disclose whether the auditor's opinion on the financial statements was affected by the material weakness. The adverse report should include:

1. A definition of material weakness

2. A statement that one or more material weaknesses have been identified and an identification of the material weaknesses described in management's report; the audit report does not need to include a description of the material weaknesses as long as each material weakness is included and fairly presented in all material respects in management's report

3. If management's report does not include a fair presentation of all material weaknesses, the audit report should include a statement that one or more material weaknesses have been identified and not included in management's report, along with a description of all such material weaknesses which contains specific information about the nature of each, and its actual and potential effect on the presentation of the entity's financial statements.

Disclaimer of Opinion or Withdrawal

1. If there are restrictions on the scope of an engagement, for example, if management refuses to provide written representations, the auditor should either withdraw from the engagement or disclaim an opinion.

The auditor may issue the disclaimer of opinion as soon as the auditor concludes that the scope limitation will prevent the auditor from obtaining the reasonable assurance necessary to express an opinion. No additional work is required.

2. The auditor should disclaim an opinion when the auditor discovers a material weakness subsequent to the as of date of the examination, but before the date of the audit report that existed as of the date in management's assertion and whose effect on internal control cannot be determined. (If its effect can be determined, the auditor should issue an adverse opinion.)

3. A disclaimer of opinion should include: a statement that the auditor does not express an opinion on the effectiveness of internal control; an explanation in a separate paragraph that includes the substantive reasons for the disclaimer. The auditor should not identify the procedures that were performed nor include the statements describing the characteristics of an examination.

Compliance Attestation

AT 601, *Compliance Attestation*, provides guidance for engagements related to an entity's compliance with requirements of specified laws, regulations, rules, contracts, or grants, as well as the effectiveness of an entity's internal control (IC) over compliance with specified requirements. An attest engagement must comply with the general, fieldwork, and reporting standards delineated in AT 101 as well as specific standards established in AT 601.

Applicability

CPAs may be engaged to perform agreed-upon procedures to assist users in evaluating compliance with specified requirements (or related assertions) and/or the effectiveness of an entity's IC over compliance. These engagements also are subject to the requirements of AT 201. CPAs also may be engaged to examine, but not review, an entity's compliance with specified requirements, or related written assertions. CPAs may provide nonattest services connected with compliance; however, these services adhere to professional consulting standards, rather than SSAE.

1. **Agreed-Upon Procedures** The objective is to present specific findings to assist users in evaluating an entity's assertion about compliance with specified requirements or about the effectiveness of an entity's IC over compliance based on procedures agreed-upon by the report users. The CPA's procedures generally may be as limited or as extensive as the specified parties desire as long as the specified users participate in establishing the procedures to be performed, and take responsibility for the adequacy of such procedures for their purposes. Prior to performing procedures, the practitioner should obtain an understanding of the specified compliance requirements.

2. **Examination** The objective is to express an opinion on an entity's compliance with specified requirements (or related assertion) based on specified criteria. To express such an opinion, the practitioner accumulates sufficient evidence regarding the entity's compliance with specified requirements, thereby limiting attestation risk to an appropriately low level. Among other procedures, the practitioner considers subsequent events. The practitioner considers issues that parallel those in a financial statement audit, but the perspective may be different. Some of these issues are risk, materiality, planning, professional skepticism, relevant internal controls and internal audit functions, use of specialists, and obtaining sufficient evidence.

3. **Conditions for Engagement** For both types of engagements, the responsible party must accept responsibility for the entity's compliance with specified requirements and the effectiveness of IC over compliance, and provide a written assertion about compliance with specified requirements or IC over compliance in either: (a) a separate report to accompany the practitioner's report; or (b) a representation letter to the practitioner.

    a. **Agreed-Upon Procedures** The responsible party evaluates compliance with specified requirements or the effectiveness of the entity's IC over compliance.

    b. **Examinations** The responsible party evaluates compliance with specified requirements, and sufficient evidential matter exists, or could be developed, to support that evaluation.

Report Components

The practitioner modifies the report if: (1) material noncompliance with specified requirements exists; (2) a restriction on the engagement scope exists; or (3) the practitioner refers to another practitioner's report as the basis, in part, for the report.

1. When a situation imposes restrictions on the engagement scope, the practitioner attempts to obtain agreement to modify the procedures. If such agreement is not obtained, the practitioner should describe the restrictions in the report or withdraw from the engagement.

2. The practitioner has no obligation to perform beyond the agreed-upon procedures and no responsibility to perform procedures to detect noncompliance in the subsequent period, beyond obtaining the responsible party's representation about noncompliance in the subsequent period.

3. The practitioner's report should not provide negative assurance about whether management's assertion is fairly stated.

Management's Discussion & Analysis

Management is responsible for the preparation of management's discussion & analysis (MD&A). AT 701, *Management's Discussion and Analysis*, provides specific guidance to CPAs related to the performance of an attest engagement with respect to MD&A prepared pursuant to Securities and Exchange Commission (SEC) regulations. This guidance does not change an auditor's responsibility in a financial statement audit, or apply to situations where CPAs provide recommendations rather than assurance. (SSAE require an auditor to read the MD&A and consider whether it is materially inconsistent with information appearing in the financial statements.) A practitioner engaged to examine or review MD&A complies with AT 101 plus the specific standards in AT 701. A practitioner engaged to perform agreed-upon procedures on MD&A follows the guidance in AT 201.

Objectives
The objective is to report on MD&A taken as a whole. An examination of MD&A provides users with an independent opinion regarding whether: (a) the presentation meets SEC criteria; (b) the historical financial information is derived accurately from the financial statements; and (c) the underlying information and assumptions provide a reasonable basis for the disclosures contained therein. A review of MD&A provides users and preparers with negative assurance concerning such matters.

Engagement Acceptance

A CPA may perform an examination or review of MD&A for an annual period, an interim period, or a combined annual and interim period. A base knowledge of the entity gained through a financial statement audit is necessary to provide the CPA with sufficient knowledge to evaluate the results of procedures. For nonpublic entities, the CPA also must receive a written assertion from management that MD&A was prepared using SEC criteria.

1. **Annual Period** A CPA may accept an engagement to examine or review MD&A of an entity for an annual period, provided the practitioner audits the financial statements for at least the latest period to which MD&A relates and the financial statements for the other periods covered by MD&A have been audited.

2. **Review of Interim Period** A CPA may accept an engagement to review MD&A for an interim period provided that MD&A for the most recent fiscal year has been (or will be) examined or reviewed (by either the CPA or a predecessor) and the CPA performs either an audit of the interim financial statements or a review.

3. **Predecessor** If a predecessor audited prior period financial statements, the successor must acquire sufficient knowledge of the entity and apply appropriate procedures relating to prior years included in the MD&A presentation.

Scope

The practitioner considers the following as well as historical financial information:

1. **Pro Forma Information** The guidance in AT 401 when performing procedures with respect to any pro forma information, even if MD&A indicates that certain information is derived from unaudited financial statements

2. **External Information** For example, debt ratings of a rating agency

3. **Forward-Looking Information** Tested only for the purpose of expressing an opinion or providing limited assurance on MD&A taken as a whole; the CPA considers whether cautionary language concerning achievability is included

4. **Voluntary Information** When the entity includes other information in MD&A required by other SEC regulations, the CPA also considers those other SEC criteria in subjecting such information to procedures

Engagement Procedures

The CPA obtains an understanding of the SEC criteria for MD&A and management's MD&A preparation method; plans the engagement; considers materiality; considers relevant portions of the entity's internal control; considers subsequent events; and obtains appropriate written representations from management. The misstatement of an individual assertion is material if the magnitude of the misstatement (individually or aggregated) is such that a reasonable person would be influenced by its correction. A practitioner also considers whether management (and any assistants) has appropriate knowledge of rules and regulations of the SEC to prepare MD&A. Because the objective of an audit of financial statements is different from that of an examination of MD&A, additional procedures typically are performed in an examination of MD&A.

1. **Examination** The CPA obtains sufficient evidence, including testing completeness, and forms an opinion consistent with examination objectives. The CPA considers the results of financial statement audits for the periods covered by MD&A, including the possible impact on the examination engagement scope of a modified audit report.

2. **Review** Procedures generally are limited to inquiries and analytics concerning factors that have a material effect on financial condition, results of operations, and cash flows. The CPA also forms a conclusion consistent with review objectives.

Control Risk

After obtaining an understanding of the entity's internal controls over preparation of the MD&A section, the CPA assesses control risk for the content in the MD&A. Control risk may be assessed at the maximum level (the greatest probability that a material misstatement could occur in an assertion and will not be prevented or detected in a timely manner) if the CPA believes controls are ineffective.

Review Performance

The CPA develops an overall strategy for analytics and inquiries. The CPA considers factors such as matters affecting the entity's industry; matters relating to the entity's business; the types of relevant information that management reports to external analysts; the extent of management's knowledge of, and experience with, SEC criteria for MD&A; if the entity is a nonpublic entity, the intended use of MD&A; matters identified during other engagements; and, the nature of complex or subjective matters that may require special skill or knowledge.

Reports

A report on an examination or review of MD&A includes the date of the completion of the CPA's procedures, which should not precede the date of the audit (or review) report on the latest historical financial statements covered by the MD&A. An entity should not name the practitioner in a client-prepared document as having examined or reviewed MD&A unless the MD&A presentation and related practitioner's report and the related financial statements and auditor's (or accountant's review) report are included in the document (or, in the case of a public entity, incorporated by reference to such information filed with a regulatory agency). The practitioner's report on an examination or review of MD&A should include the following:

1. **Both:** a title that includes the word independent

2. **Both (introductory paragraph):** an identification of the MD&A presentation, including the period covered

3. **Responsibility (introductory paragraph contd.)**

   a. **Both:** a statement that management is responsible for the preparation of the MD&A pursuant to the rules and regulations adopted by the SEC

   b. **Examination only:** and a statement that the practitioner's responsibility is to express an opinion on the presentation based on his or her examination

4. **Both (introductory paragraph concluded):** a reference to the audit report on the related financial statements, and, if the report was other than a "standard" report, the substantive reasons

5. **Both (scope paragraph):** a statement that the examination or review was conducted in accordance with attestation standards established by the AICPA

6. **Scope (scope paragraph contd.)**

   a. **Examination only:** a description of the scope of an examination of MD&A

   b. **Review only:** a description of the procedures for a review of MD&A

7. **Nature of engagement (scope paragraph concluded)**

   a. **Examination only:** a statement that the practitioner believes the examination provides a reasonable basis for his or her opinion

   b. **Review only:** a statement that a review of MD&A is substantially less in scope than an examination, the objective of which is an expression of opinion regarding the MD&A presentation, and accordingly, no such opinion is expressed

8. **Both: Explanation of MD&A (explanatory paragraph)**

   a. The preparation of MD&A requires management to interpret the criteria, make determinations as to the relevancy of information to be included, and make estimates and assumptions that affect reported information

   b. Actual results in the future may differ materially from management's present assessment of information regarding the estimated future impact of transactions and events that have occurred or are expected to occur, expected sources of liquidity and capital resources, operating trends, commitments, and uncertainties

   c. If the entity is a nonpublic entity, a statement that although the entity is not subject to the rules and regulations of the SEC, the MD&A presentation is intended to be a presentation in accordance with the rules and regulations adopted by the SEC

9. **Examination only (opinion paragraph):** the practitioner's opinion on whether:

   a. The presentation includes, in all material respects, the required elements of the rules and regulations adopted by the SEC

- **b.** The historical financial amounts have been accurately derived, in all material respects, from the entity's financial statements

- **c.** The underlying information, determinations, estimates, and assumptions of the entity provide a reasonable basis for the disclosures contained therein

10. **Review only (concluding—negative assurance—paragraph):** a statement about whether any information came to the practitioner's attention that caused him or her to believe that:

    - **a.** The MD&A presentation does not include, in all material respects, the required elements of the rules and regulations adopted by the SEC

    - **b.** The historical financial amounts included therein have not been accurately derived, in all material respects, from the entity's financial statements

    - **c.** The underlying information, determinations, estimates, and assumptions of the entity do not provide a reasonable basis for the disclosures contained therein

11. **Review only (restricted use paragraph):** if the entity is a public entity or a nonpublic entity that is making or has made an offering of securities and it appears that the securities may subsequently be registered or subject to a filing with the SEC or other regulatory agency, a statement of restrictions on the use of the report to specified parties, because it is not intended to be filed with the SEC as a report under the 1933 Act or the 1934 Act

12. **Both:** the manual or printed signature of the practitioner's firm

13. **Both:** the date of the report

Review Presentation

In order for a CPA to issue a report on a review of MD&A, the financial statements for the periods covered by MD&A and the related auditor's or practitioner's report(s) should accompany MD&A (or be incorporated by reference to information filed with a regulatory agency). There are additional requirements in the following circumstances:

1. **Interim Periods** The comparative financial statements for the most recent annual period and the related MD&A should accompany the interim MD&A (or be incorporated by reference). Generally, this requirement is satisfied by a public entity that has filed its annual financial statements and MD&A in its annual Form 10-K.

2. **Nonpublic Entity** The MD&A should include a statement that it was prepared using SEC criteria or a separate written assertion should accompany MD&A.

Reporting on Controls at a Service Organization

Guidance

Service Organization Controls (SOC) are a series of accounting standards that measure the control of financial information for a service organization. SOC 1 reports are examination engagements prepared in accordance with SSAE No. 16, and are undertaken by a service auditor to report on controls at an organization that provides services to user entities when those controls are likely to be relevant to user entities' internal control over financial reporting. For reports that are not specifically focused on internal controls over financial reporting, SOC 2 and SOC 3 reports should be used, which focus on controls at a service organization relevant to

1. **Security** The system is protected against unauthorized access
2. **Availability** The system is available for operation and use as committed and agreed
3. **Processing Integrity** The system processing is complete, accurate, timely, and authorized
4. **Confidentiality** Information classified as confidential is protected as committed or agreed
5. **Privacy** Personal information is collected, used, retained, disclosed, and destroyed in conformity with the commitments in the entity's privacy notice and with criteria set forth in the AICPA's generally accepted privacy principles

Objective

The objectives of the service auditor are to:

1. Obtain reasonable assurance about whether, in all material respects, based on suitable criteria
    a. Management's description of the service organization's system fairly presents the system that was designed and implemented throughout the specified period (or in the case of a type 1 report, as of a specified date)
    b. The controls related to the control objectives stated in management's description of the service organization's system were suitably designed throughout the specified period (or in the case of a type 1 report, as of a specified date)
    c. When included in the scope of the engagement, the controls operated effectively to provide reasonable assurance that the control objectives stated in management's description of the service organization's system were achieved throughout the specified period
2. Report on the preceding matters in accordance with the service auditor's findings

Engagement Acceptance

1. **Auditor Responsibilities** The service auditor has the capabilities and competence to perform the engagement. The service auditor should obtain an understanding of the service organization's system, including controls that are included in the scope of the engagement. The service auditor's preliminary knowledge of the engagement circumstances indicates that the
    a. Criteria to be used will be suitable and available to the intended user entities and their auditors
    b. Service auditor will have access to sufficient appropriate evidence to the extent necessary
    c. Scope of the engagement and management's description of the service organization's system will not be so limited that they are unlikely to be useful to user entities and their auditors.

2. **Management's Responsibilities** Management agrees to the terms of the engagement by acknowledging and accepting its responsibility in that they have used suitable criteria in:

    a. Preparing its description of the service organization's system

    b. Evaluating whether controls were suitably designed to achieve the control objectives stated in the description

    c. Evaluating whether controls operated effectively throughout the specified period to achieve the control objectives stated in the description of the service organization's system

3. **Materiality** In an engagement to report on controls at a service organization, the concept of materiality relates to the information being reported on, not the financial statements of user entities.

4. **Internal Audit** If the work of the internal audit function has been used, the service auditor should not make reference to that work in the service auditor's *opinion*; however, in the case of a type 2 report, if the work of the internal audit function has been used in performing tests of controls, that part of the service auditor's report that describes the service auditor's tests of controls and results thereof should include a description of the internal auditor's work and of the service auditor's procedures with respect to that work.

Report Components

1. **Date** The service auditor should date the service auditor's report no earlier than the date on which the service auditor has obtained sufficient appropriate evidence to support the service auditor's opinion.

2. **Time Frame** A Type 1 Report is a report on management's description of a service organization's system and the suitability of the design of controls for a specific date. A Type 2 Report expands on the Type 1 Report and includes the operating effectiveness of controls as well as the suitability of their design for a period of time.

3. **Elements** A Type 1 Report will include:

    a. A description of the service organization's system prepared by management

    b. A written assertion by management about whether, in all material respects, and based on suitable criteria:

        (1) The description of the service organization's system fairly presents the design and implementation of the system as of a specified period/date.

        (2) The controls related to the control objectives stated in management's description were suitably designed to achieve those control objectives as of the specified period/date.

        (3) For Type 2 Reports only, the controls that were tested were operating effectively to provide reasonable, but not absolute, assurance that the control objectives were achieved during the period specified.

    c. A service auditor's opinion on management's assertions.

4. **Modified Opinion** The service auditor's opinion should be modified and the service auditor's report should contain a clear description of all the reasons for the modification, if the service auditor concludes that:

   a. Management's description of the service organization's system is not fairly presented, in all material respects

   b. The controls are not suitably designed to provide reasonable assurance that the control objectives stated in management's description of the service organization's system would be achieved if the controls operated as described

   c. In the case of a type 2 report, the controls did not operate effectively throughout the specified period to achieve the related control objectives stated in management's description of the service organization's system

   d. The service auditor is unable to obtain sufficient appropriate evidence

5. **Disclaimer** If the service auditor plans to disclaim an opinion because of the inability to obtain sufficient appropriate evidence, and, based on the limited procedures performed, has concluded that:

   a. Certain aspects of management's description of the service organization's system are not fairly presented, in all material respects

   b. Certain controls were not suitably designed to provide reasonable assurance that the control objectives stated in management's description of the service organization's system would be achieved if the controls operated as described

   c. In the case of a type 2 report, certain controls did not operate effectively throughout the specified period to achieve the related control objectives stated in management's description of the service organization's system

   The service auditor should not identify the procedures that were performed nor include statements describing the characteristics of a service auditor's engagement in the service auditor's report; to do so might overshadow the disclaimer.

Supplemental Material

Overview of Attestation Standards—Representation Letter from the Responsible Party

(1) When the client is the responsible party, the following are examples of matters that might appear in a representation letter:

- A statement acknowledging responsibility for the subject matter and, when applicable, the assertion
- A statement acknowledging responsibility for selecting the criteria, where applicable
- A statement acknowledging responsibility for determining that such criteria are appropriate for its purposes, where the responsible party is the client
- The assertion about the subject matter based on the criteria selected
- A statement that all known matters contradicting the assertion and any communication from regulatory agencies affecting the subject matter or the assertion have been disclosed to the practitioner
- Availability of all records relevant to the subject matter
- A statement that any known events subsequent to the period (or point in time) of the subject matter being reported on that would have a material effect on the subject matter (or, if applicable, the assertion) have been disclosed to the practitioner
- Other matters as the practitioner deems appropriate

(2) When the client is **not** the responsible party, the following are examples of matters that might appear in a representation letter:

- A statement that any known events subsequent to the period (or point in time) of the subject matter being reported on that would have a material effect on the subject matter (or, if applicable, the assertion) have been disclosed to the practitioner
- A statement acknowledging the client's responsibility for selecting the criteria, where applicable
- A statement acknowledging the client's responsibility for determining that such criteria are appropriate for its purposes
- Other matters as the practitioner deems appropriate

General Attestation Standards—Adequate Knowledge of the Subject Matter

The CPA may use specialists, provided that the CPA has enough knowledge of the subject matter:

(1) To communicate to the specialist the objectives of the work

(2) To evaluate the specialist's work to determine if the objectives were achieved.

General Standards—Suitability and Availability of Criteria

(1) Criteria are the standards or benchmarks used to measure and present the subject matter and against which the practitioner evaluates the subject matter. Suitable criteria must have each of the following attributes:

  (a) Objectivity: Criteria should be free from bias.

  (b) Measurability: Criteria should permit reasonably consistent measurements, qualitative or quantitative, of subject matter.

  (c) Completeness: Criteria should be sufficiently complete so that those relevant factors that would alter a conclusion about subject matter are not omitted.

  (d) Relevance: Criteria should be relevant to the subject matter.

(2) The criteria should be available to users in one or more of the following ways:

  - Available publicly
  - Available to all users through inclusion in a clear manner in the presentation of the subject matter or in the assertion
  - Available to all users through inclusion in a clear manner in the practitioner's report
  - Well understood by most users, although not formally available (for example, "The distance between points A and B is twenty feet;" the criterion of distance measured in feet is considered to be well understood)
  - Available only to specified parties; for example, terms of a contract or criteria issued by an industry association that are available only to those in the industry

Fieldwork Standards—Planning and Supervision

Planning factors include:

- The criteria to be used
- Preliminary judgments about attestation risk and materiality for attest purposes
- The nature of the subject matter or the items within the assertion that are likely to require revision or adjustment
- Conditions that may require extension or modification of attest procedures
- The nature of the report expected to be issued

Fieldwork Standards—Obtaining Sufficient Evidence

Presumptions about evidence that are generally true:

Evidence obtained from independent sources outside an entity provides greater assurance about the subject matter or the assertion than evidence secured solely from within the entity.

- Information obtained from the independent attester's direct personal knowledge (such as through physical examination, observation, computation, operating tests, or inspection) is more persuasive than information obtained indirectly.
- The more effective the controls over the subject matter, the more assurance they provide about the subject matter or the assertion

Reporting Standards—Identification of Subject Matter or Assertion

If the attestation is on an assertion, the assertion must accompany, or be restated within, the CPA's report. The statement of the character of an attest engagement designed to result in a general-use report (i.e., an examination or a review) includes two elements:

(1) A description of the nature and scope of the work performed

(2) A reference to the professional (AICPA) standards governing the engagement.

Reporting Standards—Conclusion

(1) Misstatements: If deviations from the criteria or material misstatements exist, the practitioner should modify the report, directly expressing an opinion on the subject matter, rather than the assertion.

(2) Materiality: The CPA should consider the idea of materiality in applying this standard. Materiality is determined by the relative size of a misstated or omitted fact, rather than by its absolute amount. Materiality considerations include whether a reasonable person relying on the presentation of assertions would be influenced by the inclusion or correction of an individual assertion.

Reporting Standards—Disclosure of Reservations

(1) Unresolved Problem Reservations about the engagement refers to any unresolved problem the CPA had in complying with the standards and guidance applicable to attestation services or procedures agreed to by the specified parties. An unqualified conclusion should not be expressed if the CPA has been unable to apply all the procedures considered necessary to comply with attestation standards.

(2) Scope Restrictions Restrictions on the scope of the engagement, whether imposed by the client or by other circumstances, may require the CPA to qualify the report, to disclaim any assurance, or to withdraw from the engagement. When restrictions that significantly limit the scope of the engagement are imposed by the client, the CPA generally should either withdraw from the engagement or disclaim any assurance on the subject matter, assertions, or presentation. An incomplete review engagement requires the CPA to withdraw.

Reporting Standards—Restrictions

When a report is restricted as to use, it contains a separate final paragraph that includes the following types of statements:

(1) Indicate the report is intended solely for the use of the specified parties

(2) Identify the specified parties

(3) Indicate the report is not intended to be, and should not be, used by anyone other than the specified parties.

Agreed-Upon Procedures—Agreement on and Sufficiency of Procedures

(1) If the practitioner is not able to communicate directly with all of the specified parties, the practitioner may satisfy the requirements for agreement on and sufficiency of procedures by applying any one or more of the following or similar procedures:

- Compare the procedures to be applied to written requirements of the specified parties.
- Discuss the procedures to be applied with appropriate representatives of the specified parties involved.
- Review relevant contracts with or correspondence from the specified parties.

(2) The practitioner should not agree to perform procedures that are overly subjective and thus possibly open to varying interpretations.

(a) Examples of appropriate procedures:

- Execution of a sampling application after agreeing on relevant parameters
- Inspection of specified documents evidencing certain types of transactions or detailed attributes thereof
- Confirmation of specific information with third parties
- Comparison of documents, schedules, or analyses with certain specified attributes
- Performance of specific procedures on work performed by others (including the work of internal auditors
- Performance of mathematical computations

(b) Examples of inappropriate procedures:

- Mere reading of the work performed by others solely to describe their findings
- Evaluating the competency or objectivity of another party
- Obtaining an understanding about a particular subject
- Interpreting documents outside the scope of the practitioner's professional expertise

Agreed-Upon Procedures—Involvement of a Specialist

It may be appropriate to involve a specialist to assist the practitioner in the performance of one or more procedures. The following are examples:

- An attorney might provide assistance concerning the interpretation of legal terminology involving laws, regulations, rules, contracts, or grants.
- A medical specialist might provide assistance in understanding the characteristics of diagnosis codes documented in patient medical records.
- An environmental engineer might provide assistance in interpreting environmental remedial action regulatory directives that may affect the agreed-upon procedures applied to an environmental liabilities account in a financial statement.
- A geologist might provide assistance in distinguishing between varying physical characteristics of a generic minerals group related to information to which the agreed-upon procedures are applied.

Agreed-Upon Procedures—Use of Internal Auditors and Other Personnel

(1) A practitioner may agree to perform procedures on information documented in the working papers of internal auditors. For example, the practitioner may agree to:

- Repeat all or some of the procedures.

- Determine whether the internal auditors' working papers contain documentation of procedures performed and whether the findings documented in the working papers are presented in a report by the internal auditors.

(2) However, it is **not** appropriate for the practitioner to:

- Agree to merely read the internal auditors' report solely to describe or repeat their findings.
- Take responsibility for all or a portion of any procedures performed by internal auditors by reporting those findings as the practitioner's own.
- Report in any manner that implies shared responsibility for the procedures with the internal auditors.

Examination of Internal Control Over Financial Reporting—Definitions

(1) Control Objective: The aim or purpose of specified controls. Control objectives ordinarily address the risks that the controls are intended to mitigate. In the context of internal control, a control objective generally relates to a relevant assertion for a significant account or disclosure and addresses the risk that the controls in a specific area will not provide reasonable assurance that a misstatement or omission in that relevant assertion is prevented, or detected and corrected on a timely basis.

(2) Deficiency: A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis.

 (a) A deficiency in design exists when

  - A control necessary to meet the control objective is missing or
  - An existing control is not properly designed so that, even if the control operates as designed, the control objective would not be met.

 (b) A deficiency in operation exists when a properly designed control does not operate as designed, or when the person performing the control does not possess the necessary authority or competence to perform the control effectively.

(3) Detective Control: A control that has the objective of detecting and correcting errors or fraud that have already occurred that could result in a misstatement of the financial statements.

(4) Financial Statements and Related Disclosures: An entity’s financial statements and notes to the financial statements as presented in accordance with the applicable financial reporting framework. References to financial statements and related disclosures do not extend to the preparation of other financial information presented outside an entity’s basic financial statements and notes.

(5) Internal Control Over Financial Reporting: A process effected by those charged with governance, management, and other personnel, designed to provide reasonable assurance regarding the preparation of reliable financial statements for external purposes in accordance with the applicable financial reporting framework and includes those policies and procedures that

 (a) Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of an entity

 (b) Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with the applicable financial reporting framework, and that receipts and expenditures of an entity are being made only in accordance with authorizations of management and those charged with governance

 (c) Provide reasonable assurance regarding prevention, or timely detection and correction of unauthorized acquisition, use, or disposition of an entity’s assets that could have a material effect on the financial statements

(d) Internal control has inherent limitations. Internal control is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control also can be circumvented by collusion or improper management override.

(6) Material Weakness: A deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility (per the FASB's definition regarding accounting for contingencies) that a material misstatement of an entity's financial statements will not be prevented, or detected and corrected on a timely basis.

(7) Preventive Control: A control that has the objective of preventing errors or fraud that could result in a misstatement of the financial statements.

(8) Relevant Assertion: A financial statement assertion that has a reasonable possibility of containing a misstatement or misstatements that would cause the financial statements to be materially misstated. The determination of whether an assertion is a relevant assertion is made without regard to the effect of controls.

(9) Significant Account or Disclosure: An account balance or disclosure that has a reasonable possibility that it could contain a misstatement that, individually or when aggregated with others, has a material effect on the financial statements, considering the risks of both overstatement and understatement. The determination of whether an account balance or disclosure is a significant account or disclosure is made without regard to the effect of controls.

(10) Significant Deficiency: A deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

(11) Engagement Objective: The auditor's objective is to form an opinion on the effectiveness of an entity's internal control as of a point in time and taken as a whole. To express an opinion as of a point in time, the auditor should obtain evidence that internal control has operated effectively for a sufficient period of time which may be less than the period covered by the company's financial statements. To express an opinion on internal control taken as a whole, the auditor should obtain evidence about the effectiveness of selected controls over all relevant assertions. This involves testing the design and operating effectiveness of controls that in most cases would not be required if only expressing an opinion on the financial statements.

Exhibit 14.8 - Summary of Statements on Standards for Attestation Engagements (SSAE)

Statements on Standards for Attestation Engagements (SSAE)	Engagement	Report	Independence
Statements on Standards for Attestation Engagements (SSAE) (Covers Examination, Review or Compilation of anything other than Historical Financial Statements)	**Examination** Prospective Financial Statements (Forecast/Projection) Pro-Forma Financial Statements Compliance with specified laws, rules or regulations Management Discussion and Analysis Internal Controls at Service Organization	Opinion is Expressed	Independence is required
	Review Pro-Forma Financial Statements Management Discussion and Analysis	Negative Assurance (Not aware of any material modifications)	Independence is required
	Agreed-upon Procedures	No Opinion is expressed	Independence is required

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Discover How Prepared You Really Are.

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Regulation

Partnership Taxation

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PARTNERSHIP TAXATION

Partnership Taxation

Overview

Generally, partnerships are not tax-paying entities. Rather, they are conduits through which several types of income, loss, deductions, and credits are passed to the part through which several types of income, loss, deductions, and credits are passed to the partners [IRC §701].

- **Entity Classification** Under the *check-the-box* regulations, an eligible entity is an entity that does not meet the definition of a corporation under the regulations and is not a single owner entity, trust, or otherwise subject to special treatment under the IRC. If the entity fails to elect a classification, the regulations provide a default classification.

  - ✔ A partnership is a syndicate, group, pool, joint venture, or other unincorporated entity through which a business is carried on, and which is not a corporation, trust, or estate.

  - ✔ Mere co-ownership of property is not a partnership. However, if the entity provides services in conjunction with the use of the property by the lessee or licensee, the entity may be characterized as a partnership.

  - ✔ Limited partnerships are subject to the same rules as general partnerships.

  - ✔ Limited liability entities may be classified for federal tax purposes as either corporations or partnerships. Limited liability companies (LLC), limited liability partnerships (LLP), professional limited liability companies, etc., are frequently designed to take advantage of the pass-through tax status of partnerships or corporations, but the partnership tax status is not automatic. A limited liability entity must meet specific conditions that require it to be taxed as a corporation or elect to be treated as such. If conditions are not met and no election has been made, then it is treated as a partnership for tax purposes.

- **Information Return** Partnerships must file an information tax return (Form 1065) showing partnership income. Failure to file a return can result in a penalty being assessed against the partnership. The penalty amount is based on the number of partners. In general, partnerships with more than 100 partners must provide Form 1065 and copies of each partner's Schedule K-1 to the IRS on magnetic media. Since the items will be reported on the tax returns of the partners, the partners must segregate items that have special treatment on their individual tax returns. The partnership prepares a **Schedule K** that summarizes ordinary income and separately lists all items that are not ordinary. Additionally, a **Schedule K-1** is prepared for each partner showing that partner's allocated share of all the items on the Schedule K

- **Tax Year** The partnership's taxable year majority interest in the partnership, unless a business purpose can be established for designating a different taxable year [IRC §706(b)(1)]. The taxable year of a partnership generally is not affected by the entry of new partner. The taxable year of a partnership generally is not affected by the entry of new partners or the death or retirement of old partners.

  - ✔ **Principal Partners** If partners owning a majority interest do not have the same taxable year, the partnership must adopt the taxable year of its principal partners. Principal partners are partners having an interest of 5% or more in the partnership's profits or capital.

  - ✔ **Calendar Year** If neither partner owning a majority interest nor principal partners have the same taxable year, the partnership must adopt a calendar year as its taxable year.

- ✔ **Fiscal Year** A partnership can elect to use a fiscal year instead of a calendar year as long as the fiscal year does not result in a deferral period that is greater than 3 months [IRC §444]. Therefore, a partnership that normally is required to have a calendar year under IRC §706 can elect to have a fiscal year if the fiscal year ends on September 30, October 31, or November 30. For more information, see the coverage of S corporations.

- ✔ **Termination** The taxable year closes upon termination of the partnership.

- ✔ **With Respect to One Partner** The taxable year of a partnership closes *with respect to a partner* whose entire interest in the partnership terminates, whether by death, liquidation, sale, exchange, or otherwise. The taxable year of a partnership does not close with respect to a partner who disposes of less than her/his entire interest in the partnership, but that partner's distributive share must reflect her/his varying interests during the year.

- **Partner Level** Each partner reports her/his distributive share of income, loss, deduction, and credit for the partnership's taxable year that ends within or with the partner's taxable year [IRC §706(a)].

Example - 1 Timing of Income Recognition

A. Both the partnership's and the individual partners' taxable years end on December 31, Year 5. The partners report their shares of Year 5 partnership income, etc., on their Year 5 returns.

B. An individual partner is on a calendar-year basis, while the partnership is on a fiscal-year basis ending January 31. The partner's share of partnership income, etc., for the partnership year ending January 31, Year 5, is reported on her/his Year 5 return, (e.g., the return filed in Year 6.)

Overview of Form 1065

Each partner must account for her/his share of partnership items. The partner is taxed on the distributive share. The actual distributions are rarely taxable events, but merely a return of previous investment or previously taxed partnership income.

- **Types of Income**

  - ✔ **Ordinary Business Income**

Business Net Receipts
<Deductions>
Ordinary Business Income

  - ✔ **Separately Stated Item**

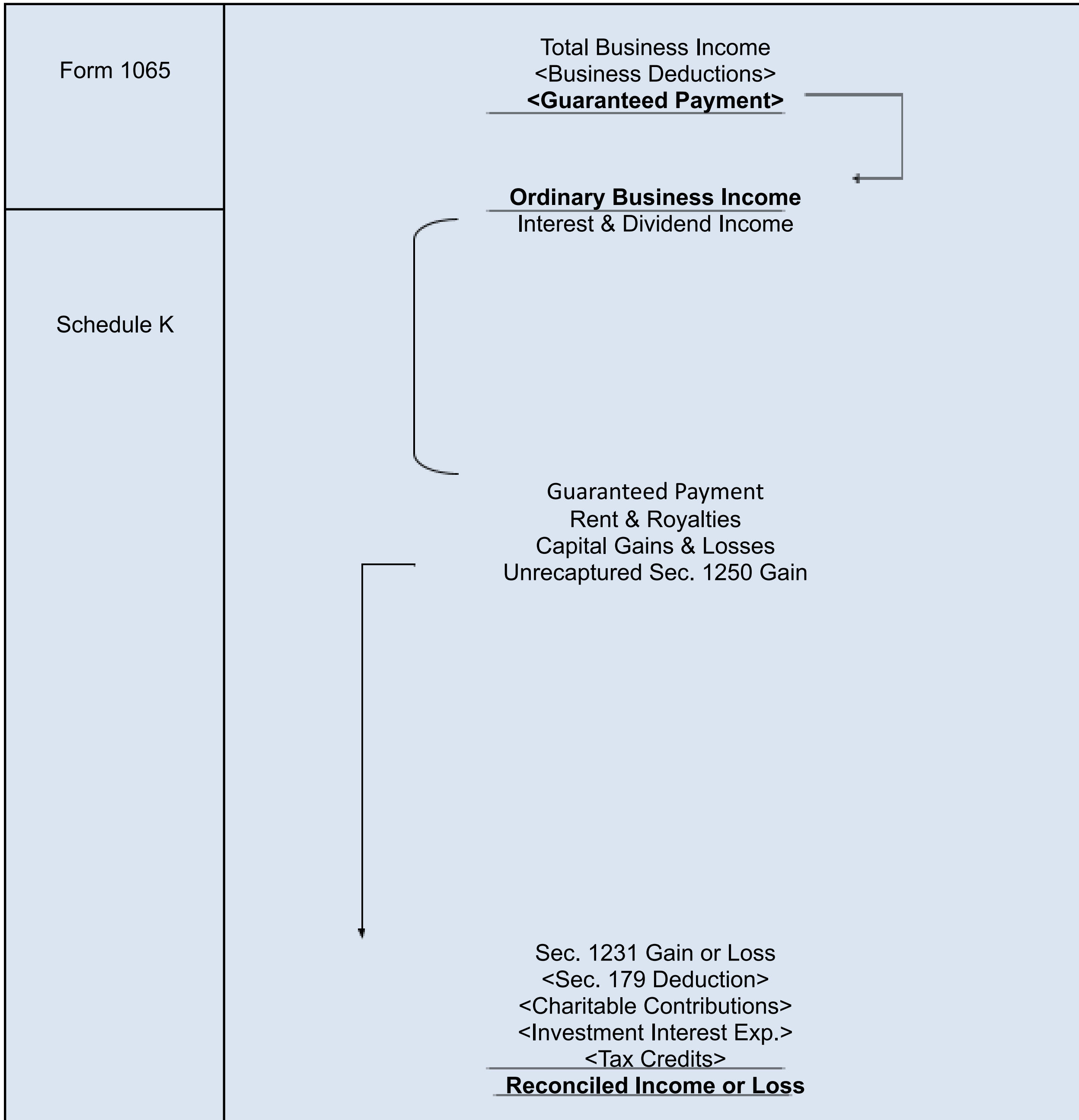
Any item which is always included in gross income of an individual without any limitations or restrictions need not be separately stated. The purpose of separately stating items is to allow any special treatment on individual returns. Following are examples of separately stated items:

Separately stated item	Reason not included in ordinary income
Interest & Dividends	Needed for investment interest limitation
Capital gains and losses	Limit on deductibility of net capital losses
Passive activities	Passive activity loss limitations
Section 1231 gains and losses	Classification of net gain as capital gain
Section 179 election	Dollar limit on use of election per year
Charitable contributions	Must itemize to deduct Up to 50% of AGI
Tax credits	Limited to tax liability

✔ **Guaranteed Payments to Partners**

Guaranteed Payments to partners such as salary, fringe benefits, interest on capital which are to be paid regardless of partnership profit or loss. Such payments are first deducted in Form 1065 to arrive at Ordinary Business Income from Partnership and then added to Schedule K which then flows from Schedule K to partner's individual Schedule K-1 and further to Form 1040.

✔ **Flow of Form 1065 to Form 1040**

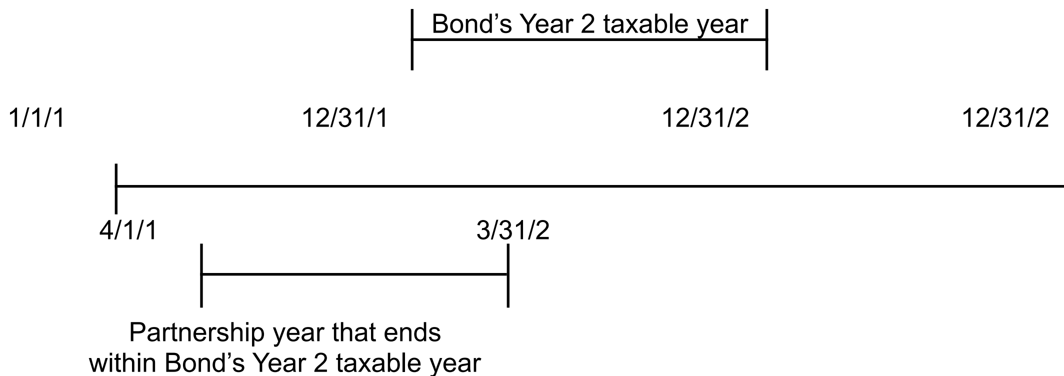


Schedule K-1	Form 1040
% Ordinary Business Income	Schedule **E**
Guaranteed Payment	Schedule **E**
% Interest & Dividend Income	Schedule **B**
% Rent & Royalties	Schedule **E**
% Capital Gains & Losses	Schedule **D**
% Unrecaptured Sec. 1250 Gain	Schedule **D**
% Sec. 1231 Gain or Loss	Schedule **D**
<% Sec. 179 Deduction>	Schedule **E**
<% Charitable Contributions>	Schedule **A**
<% Investment Interest Exp.>	Schedule **A**
<% Tax Credits>	Form **1040**
% Reconciled Income or Loss	

Example - 2 Income Recognition

The partnership of Bond and Felton has a fiscal year ending March 31. John Bond files his tax return on a calendar-year basis. The partnership paid Bond what the partnership calls a guaranteed salary of $1,000 per month during calendar Year 1 and $1,500 per month during calendar Year 2. (The IRC calls this a guaranteed payment.) After deducting this salary, the partnership realized ordinary income of $80,000 for the year ended March 31, Year 2, and $90,000 for the year ended March 31, Year 3. Bond's share of the profits is the salary paid him plus 40% of the ordinary income after deducting this salary. For Year 2, Bond should report taxable income from the partnership of $45,500.

Computations:



Bond includes in his personal gross income only his pro rata share of partnership income (distributed or undistributed) for his taxable year ending with or within the taxable year of the partnership. Bond's Year 2 taxable year ends on December 31, Year 2. However, the partnership's taxable year begins on April 1, Year 1, and ends on March 31, Year 2. Therefore, Bond's share of partnership income for calendar Year 2 is:

$1,000/month × 9 months of Year 1	$ 9,000	
$1,500/month × 3 months of Year 2	4,500	
Salary received from April 1, Year 1, to March 31, Year 2		$ 13,500
Add Bond's share of partnership income realized during April 1, Year 1 to March 31, Year 2 (80,000 × 40%)		32,000
Bond's Year 2 taxable income from the partnership		$ 45,500

The $13,500 salary that Bond received during the last nine months of Year 2 must be considered in determining his taxable income from the partnership for Year 3. The same applies to his pro rata share of the $90,000 partnership income realized during the partnership's fiscal year, beginning on April 1, Year 2, and ending on March 31, Year 3. This is because it relates to the partnership year that ends with or within Bond's Year 3 taxable year.

Example - 3 Income Flow-Through from Partnership

	XY Partnership Items	Trial Balance	Partnership	Partners
(A)	Sales	$100,000	$ 100,000	
(B)	Cost of goods sold	(50,000)	(50,000)	
(C)	Salaries	(20,000)	(20,000)	
(D)	Other operating expenses	(10,000)	(10,000)	
(E)	Guaranteed payments	(5,000)	(5,000)	
(F)	Dividends	1,000		$ 1,000
(G)	Short-term capital gains	2,000		2,000
(H)	Short-term capital losses	(4,000)		(4,000)
(I)	Long-term capital gains	10,000		10,000
(J)	Section 1231 casualty loss	(3,000)		(3,000)
(K)	Section 1231 gain	5,000		5,000
(L)	Charitable contributions	(1,000)		(1,000)
(M)	Section 1245 gain	3,000	3,000	
Net income from operations (A, B, C, D, E and M)			$ 18,000	

(1) Items F through L pass through the partnership's return and are not considered in arriving at the partnership's net income from operations. These items are treated individually by the two partners, X and Y, based on special allocations (if having substantial economic effect) or profit-and-loss sharing ratios, and are dealt with in the tax returns of the individual partners.

Note that items F through L are items of income and expense that are generally subject to individual taxpayer limitations. Such limitations apply to each individual partner of the partnership. For example, item F, Dividends, is not considered at the partnership level but is passed through and dealt with on the returns of the partners. Thus, in the case of a corporate partner, the dividends are eligible for the 80% deduction of IRC §243.

(2) The partnership's net income from operations, $18,000, is computed on the basis of items A, B, C, D, E, and M. This net taxable income is divided among the partners according to their profit-and-loss sharing ratios.

Application - 1

PDK, LLC had three members with equal ownership percentages. PDK elected to be treated as a partnership. For the tax year ending December 31, year 1, PDK had the following income and expense items:

Revenues	$120,000
Interest income	6,000
Gain on sale of securities	8,000
Salaries	36,000
Guaranteed payments	10,000
Rent expense	21,000
Depreciation expense	18,000
Charitable contributions	3,000

What would PDK report as non-separately stated income for year 1 tax purposes?

a. $30,000
b. $35,000
c. $43,000
d. $51,000

(b) While each partner calculates an individual §179 deduction, regular depreciation is deducted in arriving at the partnership's non-separately stated income. Salaries, guaranteed payments, and rent expense also are deducted in arriving at the partnership's non-separately stated income. Charitable contributions, gain or loss on the sale of securities, and portfolio income and expense items (dividends, interest, and royalties) are reported separately on the partnership return. $120k − $36k − $10k − $21k − $18k = $35k)

Partnership Formation and Operation

Contributions by the Partner to Partnership

No gain or loss is recognized by the partnership or any partner when property is contributed to the partnership in exchange for an interest in the partnership [IRC §721(a)]. Note also that, unlike IRC §351 transfers to a corporation, there is no control requirement on transfers to a partnership.

- **Cash:** When a partner contributes cash, their basis is increased by the amount paid.
- **Services:** When a partner renders services to the partnership in exchange for an interest in the business, the partner reports ordinary income equal to the FMV of the partnership interest being granted, and the partner's basis is increased by the same amount.
- **Property:** When a partner contributes property, their basis is increased by the partner's tax basis in the contributed asset and the Fair Market Value is ignored. However, if the asset being contributed is subject to a liability, the partner's net contribution is reduced because of the contributed liability, but then each partner's basis is increased by their individual shares of the liability the partnership has assumed

Application - 2

In return for a 20% partnership interest, Skinner contributed $5,000 cash and land with a $12,000 basis and a $20,000 fair market value to the partnership. The land was subject to a $10,000 mortgage that the partnership assumed. In addition, the partnership had $20,000 in recourse liabilities that would be shared by partners according to their partnership interests. What amount represents Skinner's basis in the partnership interest?

a. $27,000
b. $21,000
c. $19,000
d. $13,000

(d) The basis of the partner's interest resulting from a contribution of property is the sum of the amount of money contributed, the adjusted basis of property and services contributed, and any gain recognized by the partner. A decrease in a partner's share of partnership liabilities is treated as a distribution of money to the partner; an increase in a partner's share of partnership liabilities is treated as a contribution of money by the partner.

Cash	$ 5,000
Add: Adjusted basis of land	12,000
Less: Debt relief	(10,000)
Add: Partnership debt assumed [($10,000 + $20,000) × 20%]	6,000
Initial basis of partnership interest (not below zero)	$ 13,000

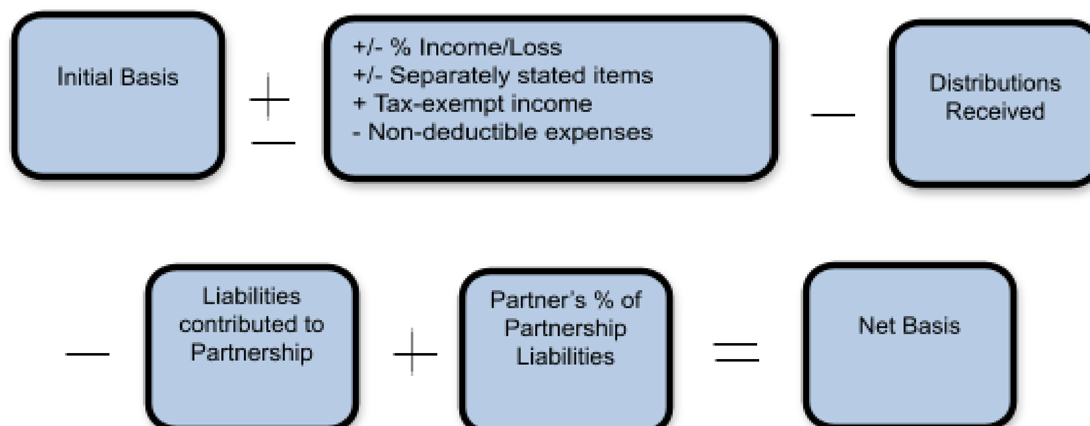
Holding Period

A partner's holding period for a partnership interest acquired through contribution of a capital asset or an asset used in the partner's trade or business includes the holding period for the contributed property. If the contributed property is not a capital asset or used in the partner's trade or business, her/his holding period in the partnership interest begins on the date that the interest is acquired.

Partnership's Basis in the Contributed Assets (Inside Basis)

The basis that the partnership itself has in the asset it owns. Also, referred to as inside basis. The partnerships basis in the contributed property is the partner's carryover basis, or carryover basis including any gains recognized if any special election is made.

Partner's Basis in Partnership (Outside Basis)



Partner's Basis refers to the amount the partner has at risk in the partnership. There is a categorical difference between Partner's basis in Partnership and Partner's Equity or Capital Account as partner's basis includes the partner's share of partnership liabilities to creditors.

Subsequent Adjusted Basis of Partnership Interest

- **Distributive Share** The adjusted basis is increased by the partner's share of income and reduced by her/his share of losses (i.e., her/his distributive share) [IRC §705(a)].

- **Distributions** The adjusted basis is reduced by actual distributions to the partner. The amount of the distribution is generally the amount of money distributed and the adjusted basis to the partnership of any other property distributed [IRC §733].

Application - 3

Dean is a 25% partner in Target Partnership. Dean's tax basis in Target on January 1, Year 1, was $20,000. At the end of Year 1, Dean received a non-liquidating cash distribution of $8,000 from Target. Target's accounts recorded municipal bond interest income of $12,000 and ordinary income of $40,000 for the year. What was Dean's tax basis in Target on December 31, Year 1?

a. $15,000
b. $23,000
c. $25,000
d. $30,000

(c) Dean's basis in his partnership interest is increased by his distributive share of the partnership's ordinary and tax-exempt income. His basis in the partnership interest is reduced, but not below zero, by cash distributions.

Basis, January 1	$ 20,000
Plus: Share of municipal bond interest ($12,000 × 25%)	3,000
Plus: Share of ordinary income ($40,000 × 25%)	10,000
Equals: Basis before distribution	$ 33,000
Less: Distribution	(8,000)
Basis, December 31	$ 25,000

- **Liabilities** The partner's share of liabilities affects her/his adjusted basis.

  ✔ An increase in a partner's share of liabilities of the partnership, or an increase in the partner's liabilities due to the partner's assumption of the partnership's liabilities, is considered a contribution of money by the partner and, thus, will increase her/his basis in her/his partnership interest [IRC §752(a)].

  ✔ A decrease in a partner's share of liabilities of the partnership, or a decrease in the partner's liabilities due to the partnership's assumption of the partner's individual liabilities, is considered a distribution of money to the partner by the partnership and, thus, will result in a decrease in the basis of her/his partnership interest (but not below zero) [IRC §752(b)].

Example - 4 Partner's Basis

Partner X contributes property worth $20,000 with a basis to her of $14,000, subject to liabilities of $16,000, to a new partnership in exchange for a 50% interest in partnership profit, loss, and capital. Y contributes $4,000 of cash to the partnership. The bases for X's and Y's partnership interests are computed as follows.

X's basis in the contributed property [IRC §722]	$ 14,000
Plus X's 50% share of partnership liabilities [IRC §752(a)]	8,000
Less liability subject to which the partnership acquires the property [IRC §752(b)]	(16,000)
Initial basis of X's partnership interest	$ 6,000
Y's basis in the contributed property [IRC §722]	$ 4,000
Plus Y's 50% share of partnership liabilities	8,000
Initial basis of Y's partnership interest	$ 12,000

Partner's Basis cannot be Negative

If a partner's share of loss reduces the partner's basis in partnership below zero, the portion of loss is not deductible. If distribution reduces the partner's basis below zero, the partner will either adjust the basis of the distributed asset or, in the case of cash distributions, report a gain from the distribution and in case of contributed asset subject to higher liability a gain is reported.

Example - 5 Partner's Basis Cannot be Negative

Dev gets a 10% interest in Apple Partnership by contributing a building with a Fair Market Value $100,000, carryover basis of $60,000 subject to a mortgage of $75,000 which the partnership assumes.

Dev's basis in the contributed property	$ 60,000
Less: Liability subject to which the partnership acquires the property	(75,000)
Add: Proportionate Partnership's Liabilities	7,500
Net basis of Dev's partnership interest	$ 0 ($7,500 gain)

Partnership Transactions

Partnership's Distributions

Distribution of assets from the partnership to a partner reduces that partner's basis in the partnership. Partnership distributions are of two types:

- **Non-Liquidating:** Partner continues in the Partnership after the distribution. Generally, a non-liquidating distribution reduces the partner's basis by Net book value of the asset distributed. Distribution can be either in cash or in Property.

  ✔ **Property:** The basis of property distributed to a partner in a non-liquidating distribution is equal to the basis of such property in the partnership's hands immediately before the distribution However,

the basis of the property distributed may not exceed the basis of the partner's interest in the partnership. In that case, the basis of the asset is limited to partner's basis in partnership. No gain is recognized.

✔ **Cash:** If cash distribution exceeds partner, excess of cash over basis is recognized as gain by partner in the individual tax return.

Example - 6 Non-liquidating Distribution

Partnership CD distributes to partner D $3,000 cash and equipment with a FMV of $10,000 and a basis of $5,000. D's basis in his partnership interest was $7,000 immediately prior to the distribution. His basis in the equipment is $4,000, computed as follows.

D's basis in partnership interest prior to distribution	$	7,000
Less cash distributed to D		(3,000)
IRC §732(a)(2) limitation on the basis of noncash assets distributed	$	4,000

Basis of equipment:
Lesser of the asset's basis in the partnership's hands immediately before the distribution ($5,000) or the IRC §732(a)(2) limitation ($4,000) $ 4,000

- **Liquidating**: Liquidating distribution are in settlement of entire partnership interest. Partner's basis in the partnership must be reduced to zero after the distribution. There could be various reasons for liquidating distributions such as retirement, death or complete withdrawal by a partner. The proportionate share of partner's profit or loss up till the date of withdrawal must be included in the basis.

  ✔ **Property**: The basis of the distributed asset is always deemed to be equal to the partner's basis in the partnership prior to the liquidating distribution after adjustment for cash such that the basis after the distribution must equal to zero. No gain or loss is recognized.

  ✔ **Cash & Unrealized Receivable**: The difference between cash received and basis in partnership prior to distribution is recognized as gain or loss and the basis adjusted to zero post distribution.

Example - 7 Liquidating Distribution

Partnership XYZ distributes $12,000 cash and a computer, with a FMV of $7,000 and a basis of $3,000, to Y in liquidation of Y's interest in the partnership. If Y's basis in his partnership interest immediately before the distribution is equal to $25,000, his basis in the computer (assuming that XYZ has no liabilities) is equal to $13,000, (i.e., $25,000 basis in Y's partnership interest less $12,000 cash received in the distribution.)

Transfer of Partnership Interest

The gains or losses from the sale or exchange of partnership interests, and gains or losses recognized on partnership distributions or liquidation, generally are characterized as capital gains or losses. Any gain or loss attributable to unrealized receivables or inventory items is ordinary in character.

- **Calculation** The amount that a partner realizes on the sale of a partnership interest includes any cash received, plus any partnership liabilities that are assumed by the buyer.

- **Distributive Share** Distributions must bear a *pro rata* share of these ordinary income items. If not, the transaction is recast as if there were such a *pro rata* distribution followed by a taxable exchange of properties, to achieve the result of the actual distribution.

- **Unrealized Receivables** Unrealized receivables are primarily those amounts due for property or services previously provided, but not yet included in income. A typical example is the accounts receivable of a cash-basis partnership. Unrealized receivables also include any potential depreciation recapture in the partnership assets.

- **Inventory:** Inventory items are those items that, if sold by the partnership, would produce ordinary income.

Cash Proceeds
Partnership Liabilities assumed by buyer
Total Amount Realized
<Partner's Basis>
Gain/Loss

Application - 4

On December 31, after receipt of his share of partnership income, Clark sold his interest in a limited partnership for $30,000 cash and relief of all liabilities. On that date, the adjusted basis of Clark's partnership interest was $40,000, consisting of his capital account of $15,000 and his share of the partnership liabilities of $25,000. The partnership has no unrealized receivables or substantially appreciated inventory. What is Clark's gain or loss on the sale of his partnership interest?

a. Ordinary loss of $10,000
b. Ordinary gain of $15,000
c. Capital loss of $10,000
d. Capital gain of $15,000

(d) The amount that a partner realizes on the sale of a partnership interest includes any cash received, plus any partnership liabilities that are assumed by the buyer. $30,000 cash plus $25,000 liability relief equals $55,000 amount realized. $55,000 amount realized less $40,000 basis equals $15,000 gain. Gains from the sale of partnership interests generally are characterized as capital gains, unless attributable to unrealized receivables or inventory items.

Section 754 Election

Section 754 allows a partnership to adjust the basis of partnership property when property is distributed or when a partnership interest is transferred and thus reconcile a new partner's outside and inside basis in the partnership.
When certain distributions from the partnership to a partner occur or when there is a transfer of a partnership interest by sale or exchange or upon death of partner, partnership will have an option to make a Section 754 election which allows for a Section 743 (b) adjustment that is equal to the difference between the outside basis to the transferee partner and her share of partnership's inside basis of asset. This election is optional unless in case of substantial built-in loss which exceeds $250,000 or more.

Purchase Price
<Inside Basis>
743(b) Adjustment

Partnership Dissolution

Termination

Terminated partnership must file a final return that covers the period up to the date of termination

- **Merger** In a merger, the resulting partnership is a continuation of the merging partnership whose partners have a more than 50% interest in the resulting partnership.
- **Division** In a division, a resulting partnership is a continuation of the prior partnership if the resulting partnership's partners had a more than 50% interest in the prior partnership.
- **Electing Large Partnership:** Electing termination for large partnerships over 100 partners
- **Discontinuance:** Operations of the business are discontinued
- **Sole Proprietorship:** Business is reduced to one partner

Electing Large Partnerships

Generally, an electing large partnership (ELP) is a partnership with 100 or more partners in the preceding taxable year that elects the simplified flow-through provisions. The election applies to all subsequent years and may be revoked only with IRS consent. For tax purposes, an ELP will not terminate merely due to the sale or exchange of 50% of its interests within a 12-month period. If substantially all the partners perform services or the partnership's principal business is commodity trading, the partnership is ineligible for the simplified flow-through provisions.

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Business Environment & Concepts

Economics

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Economics

Microeconomics

Overview

Economics is the study of the allocation of scarce resources among alternative uses. **Microeconomics** is the study of the decisions that individual units, such as firms and households, make when using limited resources to maximize satisfaction. By comparison, **macroeconomics** is the study of community (aggregate) decisions about allocating resources (labor and capital) to maximize social welfare. Microeconomics focuses on individuals (typically, as purchasers of production and suppliers of labor and capital) and firms (typically, as sellers of production and purchasers of labor and capital).

1. **Assumptions** Economics assumes unlimited human wants and limited resources to satisfy those wants.

   Note: Throughout this chapter, the term *goods* implicitly includes both goods and services, unless noted otherwise.

2. **Economic Systems** Each economic system answers the following major questions: 1-What is produced? 2-How much is produced? 3-How is it produced? 4-Who uses the output of this production? Labels attached to economic systems are useful for describing them relative to each other. The existence of pure capitalistic and socialistic societies on a large scale are not as common as at first might appear.

   a. **Capitalism** is also called the free-enterprise system. Every economic unit (firm, investor, consumer, etc.) is free to act in their own interests. Resources are owned privately and decisions are made individually. Economic questions are answered by the pricing mechanism of free markets. Government (state) oversight is mitigated to the extent possible.

   b. **Communism** Resources are owned by the state and most decisions are made by the state. Individuals make limited choices. Economic questions are answered by government planning. Government (state) oversight is maximized.

   c. **Socialism** is a mixture of capitalism and communism, with varying degrees of governmental intervention and private ownership. Some industries may be exclusive to state ownership. Economic questions are answered by government planning as well as the free market system. Economic concepts such as healthcare, education, and labor are constructed and regulated for the community as a whole.

Demand

Demand is the amount of a good that consumers as a group will and are willing and able to purchase at a given price during a given period of time. Demand analysis concentrates on consumer behavior. The price and quantity demanded for a good (or service) are related inversely; that is, *the lower the price, the higher the demand*. The classic list of demand determinants assumes a pure capitalist system: all consumers act in their individual interests. Group actions, such as boycotts and price controls, also influence demand.

1. **Cross-Elasticity of Demand** Or cross-price elasticity of demand. Measures how closely related goods influence demand. The degree to which two goods are related to each other influences the degree to which demand will change, ceteris paribus ("all other things equal").

   a. **Substitutes** If good A has a substitute, B, relatively lower in price, buyers leave the market for A and purchase the substitute B. For instance, a price increase for wool clothing may increase demand for acrylic clothing. Good A price Good B demand .

   b. **Complements** If good A has a complement, B, price changes for either have a corresponding change in the demand for the other. For instance, a price increase for breakfast cereal will decrease demand for milk. Example: cars and fuel. Good A (fuel) price Good B (SUV) demand .

2. **Income** The amount of consumers' income relative to prices influences demand.

a. **Normal Goods** Demand for normal goods has a positive relationship to income. In other words, as income increases, the demand for normal goods normally increases; as income decreases, the demand for normal goods decreases.

b. **Inferior Goods** Demand for inferior goods has a negative relationship to income. In other words, as income decreases, the demand for inferior goods increases; as income increases, the demand for inferior goods decreases.

Example: Silk clothing could be a normal good and nylon clothing could be an inferior good.

Example: Nordstrom vs Discount Clothing Retailers.

3. **Expectations** Consumer expectations as to price changes influence demand positively. If consumers expect prices to increase (inflation) they increase current demand. If consumers expect prices to decrease (deflation) they decrease current demand.

4. **Preference** Consumer taste or preference influences demand. Consumer preference is perhaps the least predictable determinant. For instance, in colonial times, oysters often were considered an inferior good (poor man's food), but now are a normal or even luxury good.

5. **Market Size** The number of consumers (also called the population) tends to have a positive relationship to demand.

Supply
Supply (or market supply) is the amount of a good that producers as a group will, and are willing and able to, supply at a given price during a given period of time. Supply analysis focuses on producers' behavior.

1. **Law of Supply** The price and quantity supplied for a good are related directly; that is, the higher the price, the higher the supply.

   a. **Production Costs** Taxes are effective increases in production costs. Subsidies act as effective decreases in production costs.

   b. **Technology** Technological improvements in production of a good increase the supply of that good. Example: economies of scale due to mass production.

   c. **Prices of Other Goods** An increase in price for another good encourages firms to use resources for the production of that other good.

   d. **Price Expectations** An increase in the expected future price for a good encourages firms to supply less at current stage.

2. **Surplus (Economic Rent)** Surplus or economic rent is deemed earned when an input is paid or purchased for a higher amount than the next highest bidder-consumer of that input would pay. For resources with perfect inelasticity, such as land and other limited natural resources, all of the price is deemed economic rent; a higher price will not increase the supply. In layman's terms, economic rent is the extra money earned for labor, capital, land etc. in excess of the cost to bring it to production.

Example 2.1 - Economic Rent

A musician earns $500,000 as a rock star. The musician's alternative employment is a sales clerk for $20,000. The economic rent is $480,000.

Elasticity
Elasticity is a measure of how responsive the market is to change in a determinant.

1. **Price Elasticity of Demand** Price elasticity of demand (E_d) measures responsiveness of demand to changes in price. If demand is elastic (imagine a rubber band), demand will fluctuate as the price changes; if demand is inelastic, demand will not change as the price changes. Algebraically, E_d is the percentage change in quantity demanded divided by the percentage change in price; thus, it is represented graphically as the inverse of the slope of the demand line.

   Note: Increases in production costs are passed readily onto buyers when demand is inelastic, but must be absorbed by sellers when demand is elastic.

   Exhibit 2.1 - Price Elasticity of Demand (Elasticity Coefficient) Formula

   $$E_d = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$$

   a. **Factors** The following factors increase demand elasticity: classification as a luxury, rather than a necessity; longer length of time period analyzed/researched; greater number of substitutes; and percent of income spent on that good. Example: Buying a Maserati vs purchasing diapers.

   b. **Elasticity Coefficient** If the absolute value of E_d is greater than one, demand is classified as elastic; if less than one, demand is classified as inelastic; if equal to one, demand is classified as having unitary elasticity.

   Exhibit 2.2 - Elasticity Coefficient and Total Revenue Relationship

	$\lvert E_d \rvert > 1$ (Elastic)	$\lvert E_d \rvert = 1$ (Even)	$\lvert E_d \rvert < 1$ (Not Elastic)
Price increase	total revenue down	same	total revenue up
Price decrease	total revenue up	same	total revenue down

2. **Price Elasticity of Supply** Price elasticity of supply (E_s) measures responsiveness of supply to changes in price. If supply is elastic, supply will fluctuate as the price changes; if supply is inelastic, supply will not change much as the price changes. Algebraically, E_s is the percentage change in quantity supplied divided by the percentage change in price; thus, it is represented graphically as the inverse of the slope of the supply line.

   A high cost and low feasibility of storage decreases supply elasticity. Attributes of the production process influence elasticity: a by-product's elasticity is influenced strongly by the elasticity of the main product. The ability to supply goods becomes more elastic with time.

   Exhibit 2.3 - Price Elasticity of Supply (Elasticity Coefficient) Formula

3. **Cross-Elasticity of Demand** Cross-elasticity of demand (E_{xy}) measures responsiveness of demand to changes in price of another good. If E_{xy} is positive, the goods are substitutes; if negative, the goods are complements; if equal to zero, the goods are unrelated. Substitutes are butter for margarine. Complements are higher prices for land lead to lower demand for housing.

Exhibit 2.4 - Cross-Elasticity of Demand (Elasticity Coefficient) Formula

$$E_{xy} = \frac{\text{Percentage change in quantity demanded of good X}}{\text{Percentage change in price of good Y}}$$

4. **Income Elasticity of Demand** Income elasticity of demand (E_i) measures responsiveness of demand to changes in income. If E_i is positive, the good is normal; if negative, the good is inferior. In other words, if E_i change is 2.0, that means a higher income led to the purchase of, say a Mercedes Benz. If E_i change is .5, that means a lower income led to the purchase of, say Spam food.

Exhibit 2.5 - Income Elasticity of Demand (Elasticity Coefficient) Formula

Market

The market is the interaction of buyers and sellers of a good for exchange purposes. The point where supply and demand curves meet is the market, or equilibrium, price. Anyone may purchase or sell the good at the market price. The market forces of supply and demand create an automatic rationing system. The system acts to allocate goods to consumers willing to pay for them. When a shortage exists, the market price will rise and quantity demanded will decrease, eliminating the shortage. When surplus exists, the market price will decrease and quantity demanded will increase, eliminating the surplus.

1. **Price Fixing** Governments may set mandatory or artificial prices, interfering with the market's automatic allocation system often with unintended results.

   a. **Ceiling** When a price is set below the market (equilibrium) price, shortages develop. This usually causes non-price competition among buyers (for example, waiting lines) and reduced production by suppliers.

   b. **Floor** When a price is set above the market (equilibrium) price, surpluses develop. This usually causes non-price competition among sellers (for example, advertising and "gifts" for customers) and reduced demand by buyers. The price set for airfare before airline industry deregulation is an example of a price floor.

   Example 2.2 - Price Ceiling

   There are 10,000 two-bedroom apartments for rent for $1,100 a month in Big City. Big City's council decides that the high rent for a two-bedroom apartment is the reason that the population is decreasing, so it initiates rent control. The two-bedroom apartments now have a ceiling of $800 a month.

   Because the rent is lower, 1,500 more families want to live in Big City; however, landlords decide to change the buildings to retail and office space because it is more profitable, so only 9,000 two-bedroom apartments are available for the 11,500 families that want to rent them.

   Even if the council prohibits conversion of existing property when the rent control is enacted, there probably will be fewer residences available for rent, eventually. Any grandfathered changes from residential rental to commercial use still will be made. Planned changes from commercial to residential use will halt. Existing rental residential stock will age and be condemned as unfit for residential use, but there is little incentive for use-lengthening maintenance or new rental residential construction.

2. **The Common (Externalities)** Assets used in common may suffer poor maintenance. The damage to common assets are called externalities or "spillover effects" as the cost is external to the abuser's cost (or once it's divided among the whole community, the cost is insignificant to the abuser/culprit).

Some common negative production externalities gaining prominence in the public eye are air pollution, landfills, and dirty water. Some corporations are taking voluntary steps to curb abuse of these commons to promote goodwill with consumers as well as to delay the advent of mandatory rationing or to minimize its disruption to corporate operations. The transformation of externalities borne by the community as a whole to internal cost borne by individuals is called full-cost accounting.

3. Impact of Shifts in Demand and Supply

a. Demand An increase in demand, when supply doesn't change, will increase the market price. A decrease in demand, when supply doesn't change, will decrease the market price.

b. Supply An increase in supply, when demand doesn't change, will decrease the market price. A decrease in supply, when demand doesn't change, will increase the market price.

c. Simultaneous and Similar An increase in supply and demand will increase output quantity with an indeterminate effect on market price. A decrease in supply and demand will decrease output quantity with an indeterminate effect on market price.

d. Simultaneous and Different An increase in demand and decrease in supply will increase the market price with an indeterminate effect on output quantity. A decrease in demand and increase in supply will decrease the market price with an indeterminate effect on output quantity.

Utility Theory

An assumption of the utility theory is that an individual's objective is to maximize the total utility from available income. Total utility is maximized when the last dollar spent on each of several different goods provides the same utility; in other words, for a fixed amount of income, a higher level of utility cannot be achieved. Total utility is the maximum level of satisfaction that a consumer can receive from buying a good or service.

Example 2.3 - Utility Theory

Owning two pairs of pants and two pairs of shoes, the consumer decides that another pair of pants will provide more utility than another pair of shoes, so the consumer buys another pair of pants. Knowing that s/he has a limited amount to spend in a two-good economy, the consumer will buy pants until buying shoes will provide more utility.

Exhibit 2.6 - Utility Maximization Formula

$$\frac{\text{Marginal utility of A}}{\text{Price of A}} = \frac{\text{Marginal utility of B}}{\text{Price of B}}$$

1. **Measurement** Cardinal utility measurements assign numerical (quantitative) values to benefits received from each good, perhaps in length, height, weight, or temperature. Ordinal utility measurements establish a rank (qualitative) to each good, without assigning a specific unit of worth.

2. **Diminishing Marginal Utility Principle** Equal increments of additional consumption of a good provide smaller and smaller additional units of utility. For instance, the first pair of shoes provides more utility than the 101st. This is similar to the law of diminishing returns.

3. **Indifference Curve** The various combinations of commodities X and Y that give equal utility to a consumer form an indifference curve. In other words, a consumer is indifferent to, or has no preference for, one combination over another along the curve. Because of the diminishing marginal utility principle theory, indifference curves are nonlinear: if consumers obtained equal utility from the first unit as the last, the relationship would be linear. Indifference curves cannot intersect, are sloped negatively, and are convex to the origin.

4. **Budget Constraints** All the combinations of two commodities an individual can purchase with a given income at given prices for the two commodities form budget constraints. A change in income causes a parallel shift on the budget constraint line. A change in either or both goods' prices changes the slope of the budget constraint line. If relative prices of both goods change proportionately, a parallel shift in the budget constraint line results.

Production and Costs
Production factors also are called inputs. They can be classified by the type of return that they generate. Capital and land sometimes are combined in one category, as interest is merely the rent paid for the use of capital. Governmental services, capital goods, entrepreneurial services, and research & development can be considered special instances of the basic four factors.

Exhibit 2.7 - Production Factors and Returns

Factor	Return
Labor	Wages
Capital	Interest
Land	Rent
Management	Profit

1. **Short vs. Long** The short run is a time period in which an entity cannot have only variable amounts of all inputs. In other words, the quantity of at least one input is a fixed cost. The long run is a time period in which an entity can change all inputs – e.g., plant capacity.

2. **Cost Classification** These classifications assume a short-run time period. In the long-run, all costs are variable, while in the short-run, there are variable and at least one fixed cost.

   a. **Fixed Costs** Fixed costs are those costs that do not change with the level of output. Average fixed costs are total fixed costs divided by output quantity.

   b. **Variable Costs** Variable costs are those costs that vary with the level of output. Average variable costs are total variable costs divided by output quantity.

   c. **Total Costs** Total costs are the sum of fixed *and* variable costs. Average total costs are total costs divided by output quantity.

   d. **Historical (Explicit) Costs** Historical costs are actual expenditures made in producing a product.

   e. **Implicit Costs** Implicit costs are amounts that would have been received if resources had been used for other purposes. Similar to opportunity costs.

f. **Opportunity (Alternative) Costs** Opportunity costs are the costs of not engaging in an alternative activity.

g. **Economic Cost** The economic cost of executing one course of action over another. For example, the economic cost of studying for the CPA is materials, books, and other expenditures. The opportunity cost tied to the CPA exam is the time spent studying instead of the salary that could have been earned working for an employer full-time. Economic cost is the income that an entity must provide in order to attract resource suppliers (for instance, equity investors).

h. **Economic Profit** Economic profit is total revenue less all economic costs. When economic profit is zero, the firm is earning just a normal profit or a normal rate of return.

i. **Normal Profit** Normal profit is the cost of keeping entrepreneurial skills in the organization. Another definition is the opportunity cost of using the owner's own resources.

3. **Basis for Decisions** Economic decisions are based on analysis of marginal factors.

a. **Marginal Revenue** The additional revenue from increasing output by one unit.

b. **Marginal Cost** The additional cost (fixed and variable) from increasing production by one unit. As fixed costs are fixed, within the specified limits, marginal cost equals variable cost.

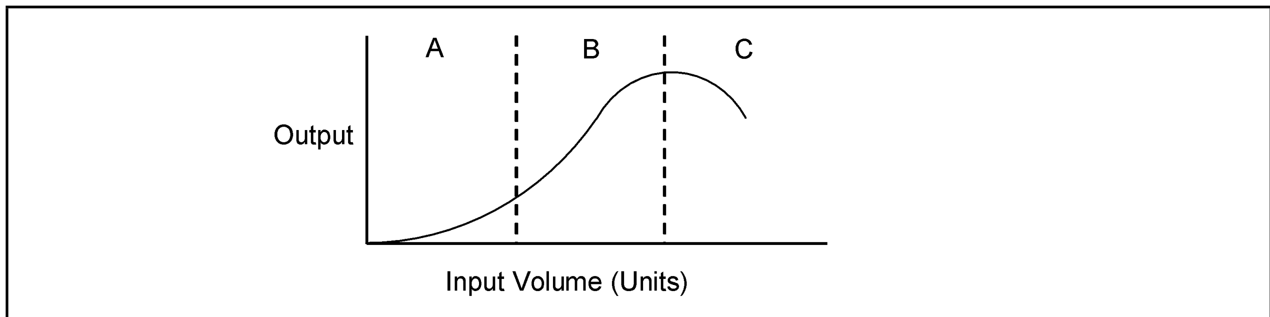
c. **Marginal Profit** The additional profit from increasing output by one unit; the marginal revenue minus marginal cost.

d. **Marginal Product** The additional output from increasing input by one unit.

e. **Marginal Revenue Product (MRP)** The marginal revenue product is that additional unit of output at which the marginal revenue from an input is equal to its marginal physical product quantity times the marginal revenue from the sale of an additional unit of output. MRP is calculated as marginal revenue times marginal physical product.

4. **Principle of Diminishing Returns** There is a point beyond which additional units of a variable input will contribute less and less to total production; in other words, the marginal production will decline. Optimal use occurs when a variable input is used up to the point at which the marginal increase in revenue from use of that input is equal to the marginal cost from use of that input. In other words, an entity will profit from use of additional resources up to the point at which marginal revenue product equals marginal resource cost.

Exhibit 2.8 - Returns on Input

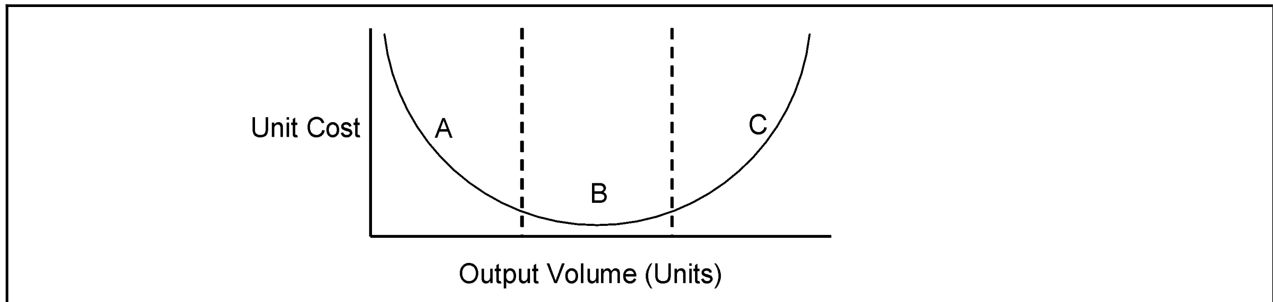


a. **Marginal Revenue Product** The marginal revenue product is that additional unit of output at which the marginal revenue from an input is equal to its marginal physical product quantity times the marginal revenue from the sale of an additional unit of output.

b. **Marginal Resource Cost** The marginal resource cost of an input is equal to its market price.

5. **Average Cost Curve** The average cost curve is U-shaped because of economies and diseconomies of scale.

Exhibit 2.9 - Average Cost Curve



a. **Increasing Returns to Scale** If all outputs are changed by a factor greater than the factor that changes inputs, returns to scale increase. For instance, there are increasing returns to scale, or economies of scale, when inputs double but outputs triple.

   As most entities expand output, average costs of production decline due to better use of resources: management, labor, and equipment. Think: specialization. This is shown graphically by the part of the input-return (Exhibit 2.8) and the average-cost (Exhibit 2.9) curves labeled "A."

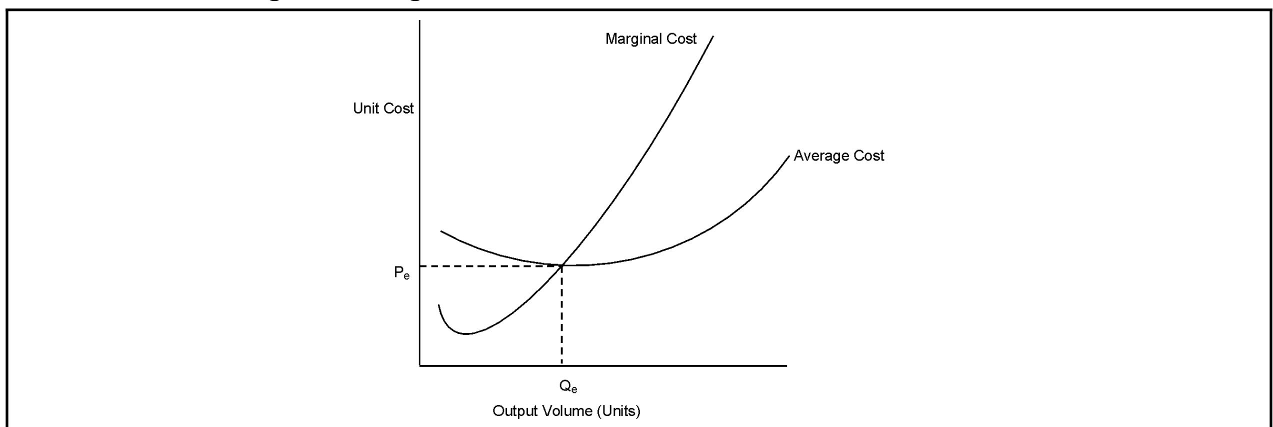
b. **Constant Returns to Scale** If all outputs are changed by a factor that is the same as the factor that changes inputs, returns to scale remain constant. This is shown graphically by the part of the input-return (Exhibit 2.8) and the average-cost (Exhibit 2.9) curves labeled "B."

c. **Decreasing Returns to Scale** If all outputs are changed by a factor less than the factor that changes inputs, returns to scale decrease. For instance, there are decreasing returns to scale, or diseconomies of scale, when inputs triple but outputs merely double.

   Eventually, as entities continue to expand output, the marginal cost of production tends to increase. The common explanation is the difficulty of managing a large-scale organization. This is shown graphically by the part of the input-return (Exhibit 2.8) and the average-cost (Exhibit 2.9) curves labeled "C."

6. **Marginal and Average Cost Curves** Marginal cost is equal to average cost whenever average cost is at a minimum. If average cost is falling (economies of scale), marginal cost is below average cost. If average cost is rising (diseconomies of scale), marginal cost is above average cost.

Exhibit 2.10 - Average and Marginal Cost Curves



Market Structure and Performance
Using non-price competition, entities can alter the nature of a market somewhat, moving a product from, for instance, a pure competitive market (all suppliers providing a commodity) to a monopolistic competitive market (suppliers providing differentiated products). Advertising and product quality often are considered the two most important methods of non-price competition, either changing the perception of a product or differentiating a product.

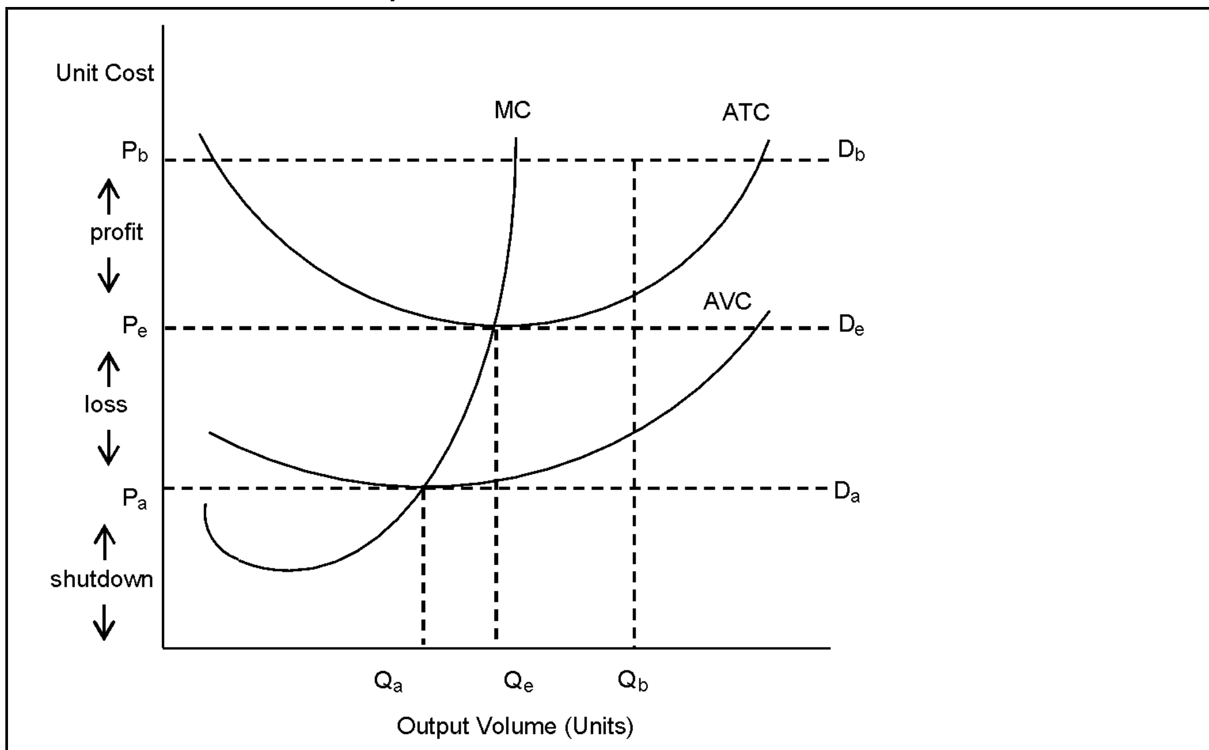
1. **Pure (Perfect) Competition** The classic example of a competitive market is any commodity, for example, iron ore, lumber, or wheat. These are not perfect examples of competitive markets; for instance, environmental and food-handling laws may restrict free entry into or exit from these markets.

   a. **Characteristics** When discussing a purely competitive market, the following are assumed: a large number of buyers and sellers acting independently; a homogeneous or standardized product; free entry into and exit from the market for firms; perfect information; no price controls; and no non-price competition.

      Perfect information means that all buyers and sellers have access to the same information. Therefore, no single trader or traders can have a significant impact on market prices.

   b. **Short-Run** A producing entity must sell at the market prices. In other words, a producing entity is a price taker. Thus, the demand curve is perfectly elastic (or horizontal). For profit maximization, the producing entity equates price to marginal cost. If the price is less than average variable cost (lower than P_a in Exhibit 2.11), the entity would stop producing to reduce loss. If the price is above marginal cost (such as P_b in Exhibit 2.11), more producers eventually will enter the market, but in the short-run, economic profit is earned. Between P_e and P_a (in Exhibit 2.11) in the short-run, the producer will continue production to cover some of the fixed costs.

      Exhibit 2.11 - Short-Run Competition



   c. **Long-Run** This analysis assumes that all firms are equally efficient. As economic profits are available, more entities will enter the market, eventually driving the price down to a point where no economic profits occur. If too many entities enter the market, eventually driving the price down to a point where economic losses occur, some entities will leave the market, eventually driving the price back up to a point where no economic profits occur.

      Because price equals marginal cost, allocation of resources is optimal: entities produce the ideal output (the output at which average cost is lowest). The price is lower and output greater than in any other market structure. An entity in a competitive market in long-run equilibrium earns no economic profit. Exhibit 2.10 shows the long-run equilibrium at P_e and Q_e. At equilibrium, market price equals marginal revenue, which also equals average revenue.

2. **Pure Monopoly** The term *monopoly* comes from the word *monarch;* this connection is due to governments granting exclusive rights to deal in goods or services. Telephone service in the United States used to be an example of a monopolistic market.

   a. **Characteristics** When discussing a monopoly, the following are assumed: a single seller; a unique product without close substitutes; blocked entry for other firms; perfect information; significant price controls; and goodwill advertising.

   b. **Short-Run** The demand schedule is sloped negatively. Marginal revenue lies below demand and is sloped negatively.

   c. **Long-Run** Blocked entry in a monopoly market allows the entity to earn an economic profit, similar to the economic profit earned in a competitive market in the short-run. Price exceeds marginal cost, so there is an under-allocation of resources. The entity produces less than the ideal output. Price is higher and output lower than in a competitive market.

   d. **Natural Monopoly** A natural monopoly exists when economic or technical conditions permit only one efficient supplier. For example, within a geographic area, a gravel supplier is likely to have a monopoly because the increased cost of shipping (due to the gravel's weight) is likely to exceed any price difference that consumers are able to get from a more distant source. Technological conditions include large economies of scale (extremely large operations are prerequisite to achieve low unit costs). Example: Amazon distribution centers.

   e. **Profit Maximization** The entity equates marginal revenue with marginal cost unless price is less than average variable cost. If price is less than average variable cost, the entity ceases production.

   f. **Legislation** Monopoly power is discouraged by the US government because prices are higher and output lower than in a competitive market. Monopolies could lead to price gouging and illegal mergers. Example: popular medications owned by big pharmaceutical companies.

      (1) **Sherman Act (1890)** Prohibits trade restraint in interstate and foreign trade, including price fixing, boycotts, agreements to divide markets, and resale restrictions.

      (2) **Clayton Act (1914)** Prohibits mergers (acquiring competitors' stock) if the resulting corporation would tend to lessen competition. Prohibits price discrimination. Prohibits having directors in common between two competing corporations.

      (3) **Robinson-Patman Act (1936)** Prohibits discounts that are not based on cost differences to large purchasers.

      (4) **Celler-Kefauver Anti-Merger Act (1950)** Prohibits acquiring competitors' assets if the result would tend to lessen competition.

   g. **Anti-trust Policy** Although a pure monopoly is rare, markets are judged as monopolistic based on how closely they approach the characteristics of a monopoly, either from a performance or market structure perspective.

      Performance factors include market performance, technological growth rate, efficiency, and profit. Structure factors include the number and size of competitors, ease of market entry, product differentiation, and buyer/seller distribution.

3. **Monopolistic Competition** Restaurants in the United States is an example of a monopolistic competitive market.

   a. **Characteristics** When discussing a monopolistic competition, the following are assumed: a large number of sellers; differentiated products; relatively easy entry into and exit from the market for firms; some price controls; considerable non-price competition (advertising, brands, etc.).

   b. **Profit Maximization** Each producing entity equates marginal revenue with marginal cost unless price is less than average variable cost. If price is less than average variable cost, an entity ceases production.

c. **Short-Run** The demand schedule is sloped negatively. Marginal revenue lies below demand and is sloped negatively.

d. **Long-Run** Limited entry in a monopolistic competition market allows the entity to earn a normal profit. Price exceeds marginal cost, so there is an under-allocation of resources. Price is higher and output lower than in a competitive market, but generally price is lower and output higher than in a monopoly.

   (1) **Waste** Entities produce less than the ideal output. The market has too many entities that are too small.

   (2) **Foreign Competition** Foreign competition tends to offset monopolistic behavior.

4. **Oligopoly** An oligopoly is a market or industry dominated by a small number of sellers that can greatly influence price and other market factors. Oligopoly firms often make decisions based on how they think other firms will act. Cell phone service providers are an example of an oligopoly.

   a. **Measures** The Herfindahl index and concentration ratios measure industry concentration and are used to identify potential oligopolies.

   b. **Game Theory** The high degree of interaction between oligopolistic competitors makes an oligopoly difficult to analyze. Game theory is the study of strategic decision making, is mainly used in economics, political science, and psychology to understand the logical side of decision science. Game theory can assist in understanding how an oligopoly might behave in the marketplace.

   c. **Price Leadership** Price leadership occurs when a major firm in an oligopoly announces a price change and other market members match it. Within a geographical area, newspapers often form an oligopolistic market, evidenced by price leadership.

   d. **Cartel** A cartel is a group of oligopolistic firms intentionally joining to fix prices. This practice is illegal within the United States. OPEC (Organization of Petroleum Exporting Countries) is an example of a cartel, although it has varying success at enforcing its “fixed” prices.

Exercise 2.1 - Oligopoly Behavior

Which of the following concepts can best be used to understand oligopolistic behavior?

a. Concentration ratio
b. Inter-industry competition
c. Game theory model
d. Herfindahl index

(c) An oligopoly is a market or industry dominated by a small number of sellers that can greatly influence price and other market factors. Oligopolistic firms often make decisions based on how they think other firms will act. The only choice listed which aids in understanding oligopolistic behavior is the game theory model.

Game theory is the study of strategic decision making, is mainly used in economics, political science, and psychology to understand the logical side of decision science. The Herfindahl index and concentration ratios measure industry concentration and can identify oligopolistic situations; they do not assist in understanding behavior. Inter-industry competition is competition among different industries, and is irrelevant to oligopolistic behavior (note that intra-industry competition would relate to oligopolistic behavior).

5. **Regulation** As monopolistic markets produce less goods at higher prices than competitive markets, federal anti-trust policy attempts to promote competition and curtail monopolies. The influence of any one entity (and therefore the monopoly power) tends to diminish as the number of entities in a market increases.

   a. **Arguments** for large entities include: (1) facilitation of innovation by having resources for research and development (R&D); and (2) economies of scale. Arguments against large entities include: (1) market power facilitates an unfair flow of wealth to large entities; (2) restrictions on expansion of output; and (3) little incentive for innovation, and hence for using resources for R&D.

   b. **Measurements** Several factors are used as a measure of monopolistic tendencies in a market. As these factors are characteristic of a monopoly, the greater incidence of these factors, the more that the market is assumed to be a monopoly.

      Performance measures include market performance, the rate of technological growth, efficiency, and profit. Market structure measures include the number and size of competitors, distribution of buyers and sellers, ease of entry, and product differentiation. The **concentration ratio** is the percentage of a market's output quantity from its four largest entities.

   c. **Taxes**

      (1) **Profit** A tax on profits doesn't change the relationship between revenue and cost, so optimal output is not affected on an entity basis or market level basis (assuming all markets have the same profit tax).

      (2) **License Fee (Lump-Sum Tax)** The fixed and average costs increase, but variable (marginal) costs remain the same. In the short-run, an entity's output remains the same. In the long-run, the increased fixed costs of a competitive market (no economic profit) will drive entities into a loss situation, so some entities will leave the market. Thus, the market price is higher and the output quantity is lower than without the license fee.

      (3) **Per Unit Tax (Sales Tax, Excise Tax, Value-Added Tax)** A per unit tax changes the price that consumers are willing to pay and the price that suppliers are paid. This disconnection decreases marginal revenue, and hence, the output quantity entities are willing to produce. Thus, the output quantity is lower than without the per unit tax.

   d. **Monopoly Encouragement** Several government actions are anti-competition. For instance, large, well-established entities tend to benefit disproportionately by government spending because those entities are familiar with, and have resources to bid on proposals for government contracts, as well as the size to handle large orders.

Other anti-competition actions include: patents, copyrights, trademarks, and other similar protection; price supports (such as for agricultural commodities); price ceilings (utility rates); minimum quality standards (such as for food transport); restrictions on foreign entities' access to domestic markets (tariffs or import quotas); costs of compliance with regulations (in effect, a tax); and licensing (radio stations or food handling).

6. **Merger Types** A merger is the union of two entities, generally leading to an increase in size of the resulting entity. When already large and powerful organizations attempt to merge, such as the big 5 health insurers, anti-trust watchdogs stop the process.

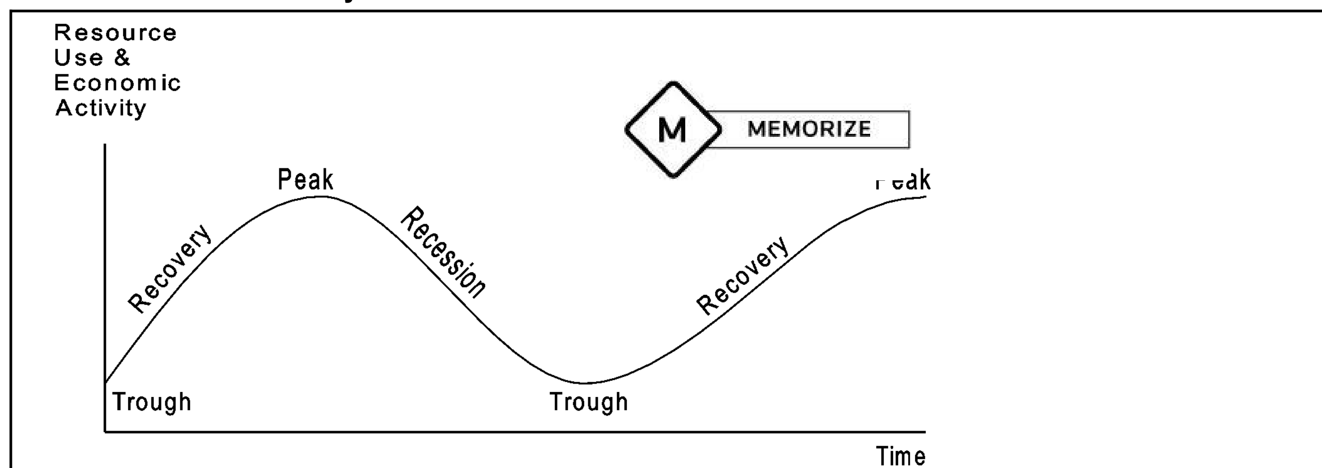
   a. **Vertical** A vertical merger describes mergers along a supply value chain, for example, a car manufacturer purchasing a tire company. The tire operations will contribute to the success of the vehicle.

   b. **Horizontal** A horizontal merger describes the merger of two entities that are competitors or near-competitors, for example, two software start-ups that both produce data-mining and analytics platforms for their clients. Usually, in a horizontal merger, both companies produce and sell similar products.

   c. **Conglomerate** A conglomerate merger is the merger of two entities in two completely different markets, for example, a steel manufacturer and a computer manufacturer. A famous example of a conglomerate merger was between the Walt Disney Company, a multinational mass media company, and American Broadcasting Company (ABC), a commercial broadcast television network.

Business Cycles
Business activity waxes and wanes. These fluctuations commonly are referred to as cycles. Economists commonly include investment expenditures in the explanation of business cycles. Businesses or industries that perform much better than average during expansions and much worse than average during recessions are called cyclical; businesses or industry that perform better than average during recessionary phases and worse than average during expansionary phases are called counter-cyclical or defensive.

Exhibit 2.12 - Business Cycle



1. **Phases** A business cycle has four commonly recognized phases. Alternatively, a recovery-recession pair can be considered a cycle, with the trough marking the end of the recession and a peak marking the end of the recovery.

   a. **Trough** A trough is characterized by low levels of economic activity and resource under-usage.

   b. **Recovery** (expansion) is characterized by increasing levels of economic activity.

   c. **Peak** A peak is characterized by high levels of economic activity and full usage of resources.

   d. **Recession** (contraction) is characterized by decreasing levels of economic activity. During the recession stage, employment levels decrease and inventories frequently build up.

2. **Indicators** Business cycles usually vary in intensity and length. Also, the long-term trend of business activity may be increasing or decreasing; a trough or peak in one cycle may be higher or lower than the same point in a previous cycle. These factors make it difficult to determine changes in phases.

   Economists attempt to forecast phase changes using several economic indicators. Indicators are selected because historically they had a high correlation with aggregate economic activity. In one way or another, many indicators are related to investment expenditures. Coincident indicators change at the same time as the activity that they indicate.

   a. **Leading** Indicators that occur before the phase change in the cycle are classified as leading indicators. These include consumer confidence survey results, as well as somewhat more objective measures.

      (1) **Average Hours Worked per Week by Manufacturing Workers** As employers foresee increased demand, they often have current employees work a few additional hours rather than recruit, hire, and train additional employees.

      (2) **Initial Unemployment Claims** A decrease in initial claims indicates that employers foresee increased demand and, thus, are retaining employees.

      (3) **Stock Prices** An increase in stock prices indicates that investors are willing to pay more for the higher returns that they expect, so this indicator often is based on the same factors as consumer confidence.

      (4) **Raw Material Price Change** Prices rise as demand increases, indicating manufacturers are producing more in response to demand from their customers. The employees who make these products will also have more money to spend, fueling demand for the goods they manufacture as well as others.

      (5) **Residential Building Permits** Housing permits indicate that building will start soon, fueling a demand for raw materials. New householders spend proportionately more than others furnishing their new dwellings, leading to increased demand for picture frames and appliances as well as lumber and plumbing supplies.

      (6) **Vendor Delivery Times and Unfilled Durables Orders** As demand increases, vendors have greater difficulty meeting customer requests from on-hand inventory, so delivery times may increase. A backlog of unfilled durable orders inspires new raw material orders and additional hiring for assembly lines as well as boosting consumer confidence of the employees who operate those lines.

      (7) **Money Supply Changes** An increase in bond prices indicates that investors are willing to pay more for the higher returns that they expect, so this indicator often is based on the same factors as consumer confidence.

          An increase in bond prices is equivalent to a decrease in effective interest rates. With lower interest rates, additional investment in fixed assets and inventories is cheaper for producers and retailers.

   b. **Trailing** Indicators that occur after the phase change in the cycle are classified as trailing or lagging indicators. These include the average prime rate charged by banks; the unit labor costs in the private business sector; and the average duration of employment, in weeks.

3. **Accelerator Theory** The accelerator theory states that capital investment is related to the rate of change in national income. It assumes that a given level of capital investment corresponds to a given level of output.

   a. Given an economy producing at capacity and a subsequent increase in demand, an increase in capital investment is the only way to meet any increased demand. The demand for capital goods creates a secondary increase in demand, which can only be met with another increase in capital investment. This secondary increase in demand produces a tertiary increase in demand, and so on.

b. The process of investing to meet demand continues to accelerate. Once a recovery is started, it creates a momentum that continues for some time.

Classical Economics

Classical economic theory holds that an economy is in equilibrium at full employment; the economy generates and maintains full employment over the long run without artificial (government) intervention due to price and wage flexibility.

1. Assumptions If people are unemployed, wages experience downward pressure until all people who want to work at the prevailing rates are employed. Therefore, unemployment doesn't exist in the long run. Similarly, if investors have capital that is not invested, returns on capital experience downward pressure until all people who want to invest at the prevailing rates are invested.

a. Flexible prices (and wages) allow self-correcting of shortages and surpluses in product (or labor) markets.

b. Flexible interest rates allow self-correcting equilibrium of savings vs. investments.

c. An increase in money leads to an increase in aggregate demand.

2. Demand for Money The impact of money on the level of national income (aggregate demand) usually is stated as MV = GDP or MV = PQ, where M = money supply; V = income velocity of money; GDP = gross domestic product; P = aggregate price index; and Q = aggregate output index. Velocity is the average turnover of the money supply in transactions that comprise national income.

3. Fiscal Policy Implications A debt-financed increase in government spending has little effect on demand because it is offset by diminished spending in the private sector. An increase in government spending, if financed by printing money, will impact demand. First, the larger quantity of money will increase demand. Secondarily, the increase in government spending will lead to a velocity increase, leading to increased demand.

Keynesian Economics

Keynesian economic theory holds that an economy can be in equilibrium at less than full employment. Keynesian economics focuses on spending and fiscal policy (governmental expenditures, taxes, etc.) as determinates of economic activity. An example is the Great Depression and FDR's "New Deal" to pull the economy back up through increased government spending.

1. Assumptions

a. Downward Price Inflexibility Price flexibility doesn't ensure full employment because wage rates are not lowered readily.

b. Savings vs. Investment Understanding changes in levels of income is dependent on distinguishing between savings and investment functions.

c. Equilibrium Full employment is not necessarily an attribute of equilibrium.

2. Production Possibility Frontier (PPF) The PPF is all the possible combinations of output, with all other factors held constant. In the short run, national income is limited by the amount of resources. Production at the PPF implies full employment and optimal resource use. If production is at the PPF, no additional output can be produced in the short run, because all the resources are being used. Different combinations of goods can be produced, but these combinations will be at or below the PPF.

a. Shift With an outward shift in the PPF, commonly called economic growth, a nation can have more output. Change in the PPF are caused by changes in resources (land, labor, capital, etc.) or technology.

b. Inflation If production is at the PPF boundary and demand increases, consumers will bid up prices of goods.

3. **Savings** Loosely speaking, savings are income that are not consumed. Income typically is regarded as the major determinant of savings, but other factors play a role. A low savings rate causes a scarcity of capital for businesses.

Propensities to consume and save commonly are compared among different groups or time periods. Because income can either be spent or saved, the total equals 100% (MPC + MPS = 100% and APC + APS = 100%).

Exhibit 2.13 - Propensities to Consume and Save

Propensity	=	Numerator	/	Denominator
Average propensity to consume (APC)	=	consumption	/	income
Average propensity to save (APS)	=	savings	/	income
Marginal propensity to consume (MPC)	=	change in consumption	/	change in income
Marginal propensity to save (MPS)	=	change in savings	/	change in income

a. **Price Expectations** Consumer expectations about price increases or future shortages cause an increase in current purchases to avoid higher prices or to guarantee access. Inflation impairs the future purchasing power of money saved today.

b. **Interest Rates** Rising interest rates tend to cause increased savings and decreased consumption. Income taxes act as decreases in interest rates.

c. **Liquid Assets Quantity** People with many liquid assets tend to increase consumption at every level of disposable income.

d. **Credit** People with large debt loads tend to reduce their consumption.

e. **Attitude/Incentive** People with a belief in the virtues of saving for tomorrow tend to have lower consumption than those who "spend for today." Social safety nets (such as Medicare, Social Security, unemployment insurance, and disaster assistance) may reduce incentive to save for retirement or contingent emergencies.

Estate and property taxes also may reduce incentives to save rather than consume. Note that the attitude attribute used to explain savings behavior is comparable to the role of the preference attribute used to explain demand.

f. **Durable Goods Quantity** With a large number of durables, consumption at a high level doesn't translate into spending. For instance, once having bought a washing machine, the consumer doesn't spend any more income (cash outflow) on washing machines for the 20-year life of the machine and yet still uses it to clean clothes (consumes the washing machine) for that period.

4. **Investment** commonly is divided into three components: residential construction, inventories, and plant & equipment. Depreciation (sometimes called **capital consumption allowance**) is a negative component of plant & equipment investment.

a. **Expected Profitability** A high technology growth rate tends to increase investment, because innovations often are profitable. Real (nominal less inflation factor) interest rate declines tend to increase investment, as new projects have a lower interest cost. A high capital goods (equipment to make goods) stock quantity tends to decrease investment, as entities have no need to spend more to make product.

Higher acquisition and maintenance costs decrease investment, as they lower the investment's expected profitability. Several government actions can change investment: effectively changing the acquisition costs (changing depreciation allowed in determining taxable income); changing tax rates; changing consumers' purchasing preferences or propensity to spend through tax code changes; or increasing government purchases of specific goods or overall quantity.

b. **Categories** Induced investments increase or decrease to correspond to expansion or contraction of economic activity. Autonomous investments are made due to expected profitability without regard for national income levels. By definition, autonomous investments are constant regardless of expansion or contraction of economic activity.

c. **Volatility** Investment holds central importance in income determination theory because it tends to be more volatile than other elements of private spending. This volatility is due to capital durability, technology states, expectations, and the acceleration principle.

   Repairs can increase the lifespan of capital equipment; this allows flexibility in the replacement schedule. Technological breakthroughs are infrequent and erratic; plus, they usually promote large amounts of investment. Changes in expectations radically alter expected profits. The acceleration principle refers to the disproportionate fluctuation in inventory and capital equipment investments due to changes in sales volume.

5. **Multiplier Coefficient** Any increase in autonomous investment, consumption, or government spending results in a multiplied increase in national income. The same income is spent several times. The impact of this effect is determined by the marginal propensity to save (MPS).

Example 2.4 - Multiplier Effect

The marginal propensity to save is 30%. Clark Company increases its autonomous investment by $100,000.

Required: What is the increase in national income?

Discussion: The $100,000 that Clark spends is income to other entities. These entities (on average) spend $100,000 × 70% = $70,000 and save $30,000. This $70,000 is still income to other entities that spend $70,000 × 70% = $49,000 and so on.

Solution: Increase in national income = $100,000 + $70,000 + $49,000 + …. = 1 / 0.3 × $100,000 = $333,333 (rounded).

a. **Formula** The multiplier coefficient equals 1 / MPS. The change in national income (NI) due to a change in spending (SP) is the multiplier coefficient times the change in spending. Algebraically, change in NI = (1 / MPS) × change in SP.

b. **Direction** As the change in spending can be either positive or negative, the effect can be positive or negative. In other words, a negative change in spending can result in a multiplied negative effect on national income.

6. **Model of Closed Economy** In a simple economy without a government, a money market, or international trade, equilibrium income occurs when aggregate savings equals aggregate investment. In other words, equilibrium income occurs when aggregate demand (consumption and investment) equals aggregate supply (measured by production).

7. **Model of Closed Economy with Government** Adding government actions to a simple economy, equilibrium income occurs when aggregate savings plus taxes equals aggregate investment plus government expenditures (assuming a balanced budget). In other words, equilibrium income occurs when aggregate demand (consumption, investment, and government expenditures) equals aggregate supply (production plus taxes).

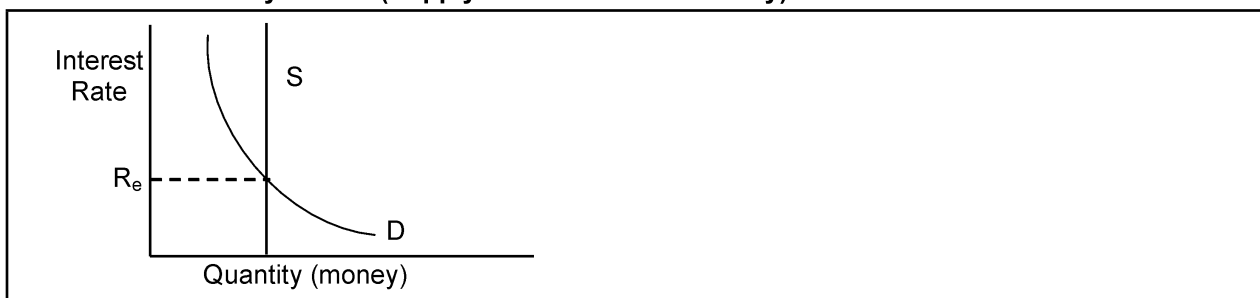
   a. **Tax Multiplier** Changes in taxes affect the economy through consumption changes. The tax multiplier coefficient equals – MPC / MPS. The change in national income (NI) due to a change in taxes (T) is the multiplier coefficient times the change in taxes. Algebraically, change in NI = (– MPC / MPS) × change in T.

   b. **Budget Surplus (Deficit)** A balanced budget means that taxes equal government expenditures. When there is a surplus or deficit, this assumption no longer holds true.

8. **International Trade** In a model with international trade, net exports add to aggregate demand and net imports reduce aggregate demand.

9. **Money Market** The supply of, and demand for, money determine the interest rate. The nominal interest rate is the real rate plus an inflation premium or deflation discount. Historically, the real rate ranges from approximately 2% to 4%.

Exhibit 2.14 - Money Market (Supply and Demand for Money)



a. **Inflation Premium/Deflation Discount** Any expected or rate determines the size of the inflation premium (or deflation discount) and hence influences the nominal interest rate.

b. **Liquidity Preference** Demand for money is influenced heavily by liquidity preference, which depends on motives for holding money. In the illustration in Exhibit 2.14, supply (S) is fixed in the short-run (set by monetary authorities); income is assumed to be fixed; and the equilibrium interest rate (R_e) is where the supply and demand curves intersect.

  (1) **Transaction Motive** Held to facilitate day-to-day business transactions.

  (2) **Precaution Motive** Held for contingencies. For instance, an independent contractor ordinarily would have a higher liquidity preference than a salaried employee, all else being equal.

  (3) **Speculative Motive** Held while waiting for more favorable investment conditions to arise. For instance, the holder doesn't buy bonds now, expecting interest rates to rise and bond prices to fall. Conversely, at high interest rates, entities hold less cash.

c. **Supply** is set by monetary authorities. In the United States, the Federal Reserve Board (the Fed) is the monetary authority. Varying the supply of money alters the interest rate. In Exhibit 2.14, a shift in the supply curve to the right (an increase in the money supply) will increase the quantity demanded.

Other Theories
Critics of Keynesian economics maintain that focus on spending and fiscal policy overlook the impact that the money supply and credit have on economic activity.

1. **Monetarist Theory** A steady, restrained growth of money supply is more significant than fiscal policy on economic activity, inflation, and employment.

   a. **Inflation** In the long run, excessive increases in the money supply cause inflation. Inflation can be controlled only by restricting money supply growth.

   b. **Multiplier Effect** Fiscal policy is too blunt an instrument to tinker with most (small) economic fluctuations. Due to imperfections in measuring business cycle changes, fiscal policy actions intended to ameliorate business cycle changes are initiated too late to have the desired impact. Fiscal policy impacts an economy already finding its own equilibrium, swinging the pendulum too far in the other direction, acting as a magnifier rather than a dampener.

2. **Supply-Side Theory** Cutting taxes stimulates work, savings, and investments and restores incentive to the economy.

   a. A progressive tax structure is a disincentive to increased investment. Cuts in taxes will produce a recovery due to an increase in aggregate demand and increased motivation for investment. Supply-side theory holds that increased income would result in the same aggregate tax revenues despite the lower tax rates, so spending cuts are not needed.

   b. Incentives for investment and production provide a stronger economy than fiscal policy of wealth redistribution (from rich to poor).

3. **Neo-Keynesian Theory** A combination of Keynesian and monetarist economic theories. Fiscal policy influences economic activities, but excessive monetary growth leads to inflation. At some unemployment levels, money supply growth primarily leads to increases in output along with some inflation.

Money

Money is a medium of exchange, a standard of value, and a store of value. A broad definition of money is anything accepted as an exchange medium, i.e., parties accept it in trade who would not purchase the medium for their own use, but because it is recognized as a common medium of exchange. For instance, in American colonial times, some school teachers were paid in tobacco. Immediately after World War II, chocolate was a medium of exchange in some parts of Europe. An example today would be Bitcoin.

1. **Definitions** "Narrow" Money is abbreviated as M_1. The Fed's monetary growth targets focus on M_2. M_1 and M_2 are the most commonly referenced measures. "Near" Money includes items such as short-term government securities, non-checking savings deposits, and small time deposits.

Exhibit 2.15 - Components of Various Definitions of Money

Money Components	M_1	M_2	M_3
Currency (coins and bills)	√	√	√
Checking deposits	√	√	√
Non-checking savings		√	√
Small (less than $100,000) time deposits		√	√
Other time deposits			√

2. **Federal Reserve Board** The Federal Reserve Board (the Fed) controls the money supply, supervises the banking system, facilitates check clearing, serves as the Federal government's fiscal agent, and holds deposits for member institutions (banks). Each bank must have minimum reserves, calculated on a daily basis. Banks with excess reserves lend money overnight to banks with shortfalls. These overnight loans are called federal funds and the interest rate on these loans is called the federal funds rate.

3. **Monetary Policy** Monetary policy is policy intended to control the money supply. Control of money supply growth is deemed essential to control inflation, spending, and credit availability. Stable interest rates and monetary control are mutually exclusive goals. The Fed focuses sometimes on interest rates and sometimes on money supply.

   a. **Open-Market Operations** The primary means of monetary control is the purchase and sale of government debt (Treasury Bonds).

      (1) **Sale** Sales decrease the money supply by removing money from circulation.

      (2) **Purchase** Purchases increase the money supply by adding money to circulation.

   b. **Discount Rate** Member banks may borrow from the Fed at a rate known as the discount rate. Lowering the discount rate encourages borrowing and increases the money supply. Conversely, raising the rate decreases the money supply.

   c. **Reserves** The legal reserve is the percentage of customers' deposits that banks must keep. The mechanism of changing the reserve requirement is used rarely because it is so powerful.

   d. **Credit Controls** The Fed may require a minimum down payment on certain purchases. When this minimum applies to securities, it is called a margin requirement. Raising the down payment percentage decreases the money supply.

4. **Lag** Effective monetary policy is complicated by inherent delays. The time that it takes a change in the business cycle to be recognized is recognition lag. Administrative lag is the time for the Fed to implement a change (for example, to buy or sell government debt).

   The time that it takes the economy to react to the Fed's changes is called operational lag. By the time these lags pass, the economy already may have exited the phase that initiated the Fed's action. Thus, instead of mitigating the effects of one phase of the business cycle, careless Fed action could magnify the effects of the next phase inadvertently.

Inflation and Deflation
Inflation is an increase in the general level of prices. The general price level is related inversely to the purchasing power of money. Hyperinflation is a situation where prices increase at a dramatically fast rate. Deflation is a decrease in the general level of prices for goods and services and in the level of interest rates.

Exercise 2.2 - Inflation Adjustment

A hospital is comparing last year's emergency rescue services expenditures to those from 10 years ago. Last year's expenditures were $100,500. Ten years ago, the expenditures were $72,800. The CPI for last year is 168.5 as compared to 121.3 ten years ago. After adjusting for inflation, what percentage change occurred in expenditures for emergency rescue services?

a. 38.0% increase
b. 13.8% increase
c. 0.6% decrease
d. 18.1% decrease

(c) The inflation adjustment factor = {(last year's CPI) 168.5 / 121.3 (the CPI ten years ago)} = 1.38912. The expenditures ten years ago adjusted for inflation are $72,800 × 1.38912 = $101,128. The inflation-adjusted percentage change in expenditures is ($100,500 – $101,128) / $101,128 = 0.6% decrease.

1. **Impact** Because holding money during an inflationary period results in an economic loss, inflation discourages savings behavior.

    a. **Restricts Lending** Usury laws prohibit charging interest over a stated rate. When the inflation rate is high, the stated rate minus the inflation premium may be less than the real interest rate. In this circumstance, credit becomes tight.

    b. **Relationships Strained** The uncertainty of inflation is a further complication in negotiating long-term contracts. Contracts that were reasonable when signed may become onerous for some of the contracting parties, encouraging breaches.

    c. **Wealth Redistribution** Inflation arbitrarily redistributes wealth without regard for market operations or social goals. Debtors repay loans in less valuable dollars, reducing the value of the creditors' assets. Pension plans pay pensioners defined benefit pensions in less valuable dollars, making pensions worth less.

2. **Measurement**

    a. **Consumer Price Index (CPI)** A comparison of the price of items in a "typical" shopping cart to a base value over time.

    b. **Wholesale Price Index (WPI)** A comparison of the price of items in a "typical" shopping cart at wholesale quantities to a base value.

    c. **GDP Deflator** A factor that includes all production of an economy at the price used for the GDP calculation.

3. **Cost-Push Theory** Inflation is caused when increased product costs are passed onto consumers in the form of higher prices. Labor unions are considered the primary source of these costs. This theory is of decreased significance with less powerful unions because of fewer manufacturing workers (proportionate to service industry workers) and membership declines.

4. **Demand-Pull Theory** Inflation is caused by excess aggregate demand for goods and services. Usually excess aggregate demand is deemed to be due to expansionary fiscal policy (additional government expenditures).

Unemployment
Full employment theoretically exists when all individuals willing to work at market wages are employed at tasks that use their skills. Unemployment results in foregone output; its economic costs can be measured in terms of the gap between potential and actual GDP. Less measurable are other costs, including degradation associated with the loss of meaningful occupation and lost income on both an individual and societal level.

1. **Unemployment**

   a. **Frictional** unemployment is due to labor market mechanics. From a policy standpoint, job turnover results in some unemployment in a "fully" employed condition; a 3% unemployment rate may be "full" employment for an economy.

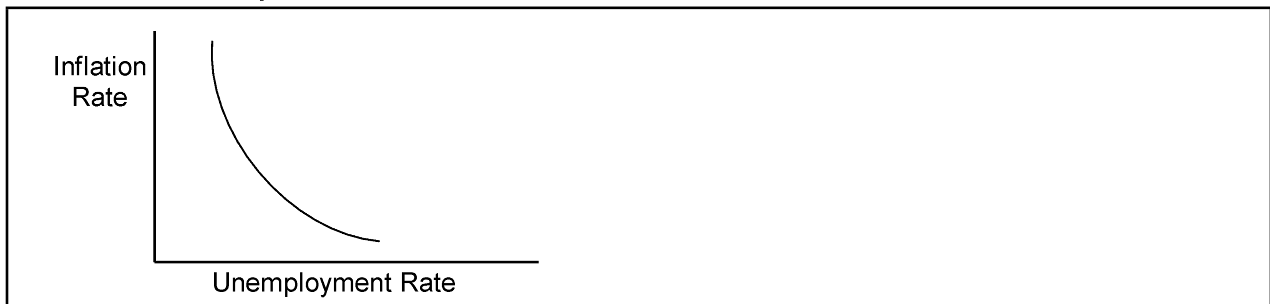
      In other words, some individual will be considered 'unemployed' between being laid off by employer A and learning about and being hired by employer B, even if employer B has a job opening when the individual is laid off by employer A. This is the most common type of unemployment.

   b. **Structural** Aggregate demand is equal to aggregate labor supply, but the nature of the supply doesn't match the nature of the demand. For example, unemployed individuals have machinist skills when employers have unfilled engineering jobs. Mismatches can occur in skills, occupation, industries, or geographic location.

   c. **Cyclical** Aggregate demand is less than aggregate labor supply during low points in the economic cycle.

2. **Inflation vs. Unemployment** The Phillips curve attempts to illustrate the relationship between inflation and unemployment.

Exhibit 2.16 - Phillips Curve



   a. **Historical** Historically, economic theory holds inflation and unemployment are related inversely. Inflation Unemployment .

   b. **Modern** economic theory holds there is little relationship between inflation and unemployment; in the long run, the frictional rate remains constant regardless of the inflation rate and the Phillips curve is applicable only in the short run. (In this context, *short run* may last for years).

Government
With the Full Employment Act of 1946, the US Federal government justified entering a market in which market forces do not allocate resources efficiently.

1. **Fiscal Policy** Government actions (taxes, tax credits, expenditures, etc.) intended to result in economic goals (such as a certain national income level, certain income distribution, acceptable unemployment levels, etc.) are referred to as fiscal policy. Other government actions may have an impact on the economy unintended by legislators that is nonetheless foreseeable by economists.

2. **Consumer Goods Spectrum** Private goods are goods for which consumption is able to be traced to one entity. Consumers of private goods purchase as much of a good as they want, with different people in the same community able to purchase differing quantities and levels of quality.

   Public goods are goods for which benefits cannot be excluded readily from part of a community. Also, the good itself is not divisible for practical purposes. The decision of quantity and quality for public goods must be decided at a community-wide level.

3. **Production Possibility Frontier** Just as for any other two goods, public and private goods can be plotted to form a production possibility frontier. Publicly treated water is likely close or at the PPF, whereas treated water from small private systems would not be on the PPF.

4. **Allocation** Due to the nature of public goods, there may be inefficiencies with regard to consumption. Because a public good cannot be excluded from certain individuals, people may receive the benefit of the good without paying for it. In other words, some may just get a "free ride."

5. **Taxation** Taxes often are imposed based on two principles: the ability to pay (a progressive tax structure) and the derived benefit (fee-for-service, such as property taxes paying for trash removal). Unlike customers paying fees to a private entity, taxpayers might not get direct benefits from their expenditures and taxes are not optional.

   a. **Classification** Taxes may be classified in several ways, including the focus on ability to pay or the manner of payment.

      (1) **Direct** taxes include sales taxes, income taxes, and the property taxes that property owners pay. For example, income taxes are paid by (or withheld from) an entity directly.

      (2) **Indirect** taxes are hidden in foregone income or compliance costs. Although the employer's share of Social Security and unemployment taxes are paid by employers, this is an indirect tax on employees; employers base the decision to hire employees on the whole compensation cost, including what is required to be paid in Social Security taxes.

      (3) **Proportional** Entities pay the same proportion regardless of income (or wealth).

      (4) **Progressive** Entities with higher income (or wealth) pay more tax as a proportion of income (or wealth) than entities with low income (or wealth).

      (5) **Regressive** Entities with higher income (or wealth) pay less tax as a proportion of income (or wealth) than entities with low income (or wealth).

   b. **Incidence** Taxes may be paid by one entity, but borne by another. For example, landlords may increase rents to cover property taxes. Corporations may pass corporate income and property taxes and excise taxes to consumers with the higher prices they charge for goods. Social Security, unemployment, and other taxes paid by employers are borne indirectly by the employees; presumably wages would be higher if the employer didn't have to pay the taxes.

   c. **Types**

      (1) **Income** taxes are levied against taxable income. In the United States, the rate structure is progressive, but due to various exclusions, credits, and deductions in calculating taxable income from economic income, the end result (tax paid as a percentage of economic income) is not necessarily progressive.

      (2) **Property** taxes are levied against wealth, not income. Because entities that rent typically pay property taxes indirectly, taxes on real property may not be as progressive as they first appear. Taxes on property often have exclusions (such as homestead value up to a specified amount or retirement funds) and progressive rates.

      (3) **Sales** Because sales taxes are levied against income that is spent, rather than saved, sales taxes fall proportionately heavier on entities that spend most of their income. While this may be said to encourage saving, entities with low levels of income may have enough only for essentials and little left for savings. Thus, sales taxes generally are regarded as regressive.

      (4) **Wage** Social Security taxes are a common example of wage taxes. Social Security taxes are regressive, because after a threshold amount is reached, the whole tax is not levied for the remainder of the year. Indirect taxes such as unemployment taxes also may be considered wage taxes.

      (5) **Value-Added** A value-added tax (VAT) is common in other industrial nations and considered occasionally in the United States. Each entity in a production and distribution chain pays tax on the difference between its sales and purchases. Consumers ultimately bear the incidence of a VAT.

Under a VAT structure, all entities pay taxes, regardless of income. A VAT tax is held to encourage savings because only consumption is taxed (not consumption and savings, as is the case with an income tax).

6. **Debt Financing** When taxes do not cover expenditures, governments borrow. Debt holders differ from taxpayers in that their participation cannot be mandated.

   a. **Timing** Taxes result in contemporaneous payment for expenditures. Debt financing extends payment for expenditures over time. If debt-financed expenditures have no future benefit, intergenerational inequity results. Intergenerational inequity is when one generation pays for a different generation's benefits.

   b. **Market Effect** Government bonds compete with corporate bonds (and to a lesser extent preferred and common stock) changing the quantity supplied. When there already is robust economic activity, this may increase interest rates and reduce corporate borrowing and investment. When there is little economic activity, additional spending shifts aggregate demand which increases national income and encourages investment.

7. **Governmental Transfer Payments** Transfer payments (such as welfare, unemployment compensation, and Social Security) alter the distribution of income to the population.

Globalization

Introduction
Economic globalization is the integration and interdependence of national, regional and local economies through cross-border movement of goods, services, technologies, information, labor, and capital. Economic globalization can be viewed as either a positive or a negative phenomenon. Effects include shrinking family size, immigration to larger cities, and gender role transformations. Some of the other common effects include:

1. **Positive Effects** Increased growth rate of real GDP per capita; decrease in global poverty through spread of free trade and capitalism; increase in educational and health levels; spread of global democracy and military cooperation; and environmental cooperation. Technology has helped develop the positive effects of globalization.

2. **Negative Effects** Increased unemployment due to automation in manufacturing and agriculture (reduces the need for unskilled, uneducated, local labor); spread of disease; capital flight (assets and/or money rapidly flow out of a country as a reaction to increases in taxes, tariffs, labor costs, etc.); increased economic inequality; and cultural assimilation (exposure to different languages, technology, music, cultures, etc. can have a detrimental effect of native cultures); and strain on local and family relationships.

3. **Measuring Globalization** Measurement of economic globalization looks at trade, Foreign Direct Investment (FDI), portfolio investment, and income. There are also indices which attempt to measure globalization in more general terms, such as political, social, cultural, and even environmental aspects of globalization. For example, the KOF Index measures the three main dimensions of globalization: economic, social, and political.

Direction of Trade
When countries specialize in the goods that they produce most efficiently and exchange with other countries, assuming free trade, pure competition, and minimal shipping costs, more is produced than if each country tries to be self-sufficient. Total output is maximized when each country specializes in the product in which it has the greatest comparative advantage.

1. **Absolute Advantage** Absolute advantage for a good exists when the cost of producing that good in one country is less than the cost of producing that good in another country.

Example 2.5 - Absolute Advantage

The Pan Kingdom and Neverland each produce only food and cloth. They have no other trading partners, no trade restrictions, and no transportation costs. In the Pan Kingdom, 1,000 units of input (labor, land, and capital) produces 100 bushels of food or 20 bolts of cloth; this comes to 10/bushel or 50/bolt. In Neverland, 1,000 units of input produces 125 bushels of food or 16 bolts of cloth; this comes to 8/bushel or 62.5/bolt.

Required: Which country has an absolute advantage for producing cloth and which for producing food?

Solution: Neverland has an absolute advantage in producing food and the Pan Kingdom has an absolute advantage in producing cloth; it is cheaper to produce food in Neverland than it is in the Pan Kingdom and it is cheaper to produce cloth in the Pan Kingdom than in Neverland.

Observation: If each country produced half of these goods, with 1,000 units of input, Neverland would produce 62.5 bushels of food and 8 bolts of cloth and the Pan Kingdom, would produce 50 bushels of food and 10 bolts of cloth; this totals 112.5 bushels of food and 18 bolts of cloth. If each country specializes in the good in which it has a comparative (and an absolute) advantage, Neverland produces 125 bushels of food and the Pan Kingdom produces 20 bolts of cloth. No other combination results in more goods produced.

2. **Comparative Advantage** Comparative advantage for a good exists when the opportunity cost of producing that good is less than the cost of producing other goods in the same country, compared to another country.

Example 2.6 - Comparative Advantage

Country\Good	Input	Cotton (Bales)	Input	Wheat (Bushels)
Southland	3	30	2	60
Northland	3	15	2	40
Total	6	45	4	100

Required: Determine what each of the countries should produce

Determining Which Country Should Produce Cotton

Southland produces 10 bales of cotton per unit of resource and
30 bushels of wheat per unit of resource

Southland's opportunity cost of producing cotton is 3 (30/10) bushels of wheat (per bale of cotton)

Northland produces 5 bales of cotton per unit of resource and
20 bushels of wheat per unit of resource

Northland's opportunity cost of producing cotton is 4 (20/5) bushels of wheat (per bale of cotton)

Southland has the lowest opportunity cost of producing cotton (3 < 4) and, therefore, it should produce cotton.

Determining Which Country Should Produce Wheat

Southland produces 10 bales of cotton per unit of resource and
30 bushels of wheat per unit of resource

Southland's opportunity cost of producing wheat is 1/3 (10/30) bales of cotton (per bushel of wheat)

Northland produces 5 bales of cotton per unit of resource and
20 bushels of wheat per unit of resource

Northland's opportunity cost of producing wheat is 1/4 (5/20) bales of cotton (per bushel of wheat)

Northland has the lowest opportunity cost of producing wheat (1/4 < 1/3) and, therefore, it should produce wheat.

3. **Factor Endowment** The Heckscher-Ohlin theory states that regional differences in efficiency occur because of difference in supply of production factors: land, labor, and capital. For instance, farming is favored by a slowly moving river as a reliable irrigation source, but manufacturing is favored by a swiftly moving river as a power source.

   Factors generally are classified in the following categories: climatic (weather) and geographical (land) conditions; human capacities (labor); supply and nature of capital accumulation; and proportions of resources. Some economists also include political and social environment (legislated minimum wages and tax credits) and technological environment as factors; these factors were ignored or assumed constant in earlier models. The Heckscher-Ohlin theory assumes the following.

   a. **Product Classification** The theory assumes a given product always uses the same proportion of inputs. This may not be the case. For instance, cows can be milked by hand (a labor-intensive process) or by machine (a capital-intensive process).

   b. **Technology** The theory assumes a given technology is globally available or present. The **Leontief paradox** notes that technology-intensive goods produced by skilled labor may be exported by a labor-poor region to a labor-intensive region at a lower price than the same good produced locally by a labor-intensive process.

   c. **Transportation Cost** The theory assumes transportation costs are minimal. This assumption obviously is contradicted by some products that have prohibitively high shipping charges, such as slate, gravel, and other stone for building construction.

   d. **Consumer Taste** The theory assumes the impact of consumer taste is minimal. Consumer taste plays a considerable role in trade, often resulting in the reverse of factor endowment theory.

      For example, wine is imported to the United States from France, although land for vineyards is more plentiful in the United States than France.

      The Heckscher-Ohlin theory, as related to international trade, generally states that one should export goods that use its relatively abundant factor (e.g., labor) more intensively, and import goods that use its scarce factors (e.g., capital) intensively.

4. **Specialization** Production factors and efficiency determine which goods countries will export and import. Countries tend to export goods in which they have comparative advantages and import goods in which they have comparative disadvantages.

   For instance, in a model with only labor, land, and capital as production factors, countries with a relative abundance of labor will import capital-intensive and land-intensive goods and export labor-intensive goods.

   a. Capital-intensive goods are those requiring a relatively high level of investment, for example, a construction plant to produce aircraft. Technologies that mass produce products or services, as opposed to manual labor, are examples.

   b. Labor-intensive goods are those requiring a relatively high level of labor, for example, the labor involved in making computer programs. Note that this refers to the labor involved in making programs and applications *not* the usage of these applications. Cheap but effective programmers from India are examples.

   c. Land-intensive goods are those requiring a relatively high level of land, for example, the land involved in beef production. Vineyards for wine are examples as well.

5. **First Mover Theory** The first mover theory is that entities that first enter a market will dominate it, as late-comers will not be able to capture market share away from the standard-setting pioneers who are able to achieve economies of scale most readily. Subsequent studies indicate that the original research, based on surveys of surviving firms, did not consider the true pioneers of some markets: entities no longer in business when the survey was performed. Example: Uber vs other rideshare companies.

6. **Overlapping Demand** The Linder theory of overlapping demand contends that while factor endowment (focusing on supply) explains raw materials trade, it doesn’t adequately explain manufactured goods trade.

The Linder theory (attending to demand) states that as consumers' tastes depend heavily on their income, per-capita income of a country will influence demand, but doesn't predict the direction of trade. Because local entities will produce goods for local demand, the nature of local manufacturing will depend on local per-capita income. Local entities also will make their goods available for export.

The theory also states that countries with similar per-capita income will have greater trade than between countries with dissimilar per-capita income, due to consumers' different tastes. Thus, the United States and Germany both import cars from each other, with consumers perceiving differences between Ford Mustangs and Volkswagen New Beetles.

Trade Barriers

Usually, the effect of trade barriers is to keep resources (land, labor, capital, etc.) in less efficient protected industries rather than move the resources to relatively efficient industries. Real wages and total world output do not reach full potential. General Agreement on Tariffs and Trade (GATT) is an international agreement to reduce trade barriers.

1. **Purpose** Trade restrictions exist due to many factors. An exporting country may allow conditions that are not permitted in a country that would otherwise import goods from that exporting country. For instance, the exporting country may have no health care, minimum safety standards, minimum wage, or minimum age requirements for workers or permit pollution or other practices banned in a country that has a trade barrier.

    a. **Barrier Support** Competition costs are obvious (direct and concentrated). For instance, it is noticeable when people lose jobs or plants are closed. Special interest groups are established readily with a concentration of publicly known stakeholders, resulting in groups that are strong, well organized, and effective at lobbying for protection.

    b. **Free Trade Support** Competition benefits are less obvious (marginal and scattered) and often delayed (lower prices, better products, more export industry jobs). For instance, several dispersed entities may each export a little more product, leading to widespread, but individually small, increases in hiring or orders of components from several different suppliers.

2. **Self Sufficiency** Countries may avoid free trade for crucial goods due to reasons such as economic security (possible labor strikes in supplying countries) and national defense (possible political upheaval in other countries or tensions between countries) as well as national pride and supply disruption avoidance (possible transportation disruptions due to weather).

    For instance, an island nation may grow some food on a long-run basis, even though it would be cheaper to import it. The economies of countries exporting primarily raw materials are particularly sensitive to fluctuations in the business cycle; these countries may have some local production that evens out employment.

    a. **Incubate Infant Industry** One argument against free trade is that a country has a comparative advantage in the long run, but a temporary disadvantage. Infant industries may seek temporary protection from imports until labor is trained, production techniques are perfected, and economies of scale obtained. In practice, an industry will be slow to admit its maturity. While protected from foreign competition, an industry has little reason to improve efficiency.

    b. **Protect Local Jobs from Cheap Foreign Labor** One argument against free trade is that a country with minimum legislated wages and benefits will be flooded by goods from countries with wages below this minimum, unhealthy or unsafe working conditions and no benefits, putting local workers out of work.

        In countries with high hourly wages, worker productivity tends to be higher because of superior employee training, management, and technology. These factors tend to make the labor cost per unit lower. Further, if imports are stopped or restricted domestically, exports will be stopped or restricted by other countries seeking the same sorts of protection; the local jobs involved in manufacturing those exported goods would then be eliminated.

    c. **Fair Competition Tariff** Proponents of the fair competition or scientific tariff argument hold that an import tariff that brings the cost of imported goods up to the domestic price levels the playing field for imports, eliminating an "unfair" advantage foreign producers have due to lower raw material costs, labor costs, etc. Given that some domestic entities have lower costs than others, the import tariff

would likely be set to align foreign prices with the prices of the domestic producer with the highest domestic cost.

This practice is similar to incubation, except it is permanent. The least efficient local producer has little incentive to increase efficiency, other local entities have exceptional profits, and efficient foreign entities are penalized; this could result in import tariffs (also called countervailing tariffs) by the foreign countries.

3. **Control Strategies** Some control strategies may backfire. For instance, imposing import quotas and tariffs may either reduce domestic imports or encourage the foreign country to institute quotas of its own. Import quotas and tariffs also may encourage smuggling or incite the foreign country in question to adopt additional import quotas in retaliation. International unions of trading nations (for instance, the European Union) or national government barriers to free trade include the following:

   a. **Import Quota** An import quota is a limit on the quantity of specific products that may be imported. In the short run, the balance of payments becomes more favorable, domestic employment increases, and prices on the specified products increase.

   b. **Tariff** Tariffs, or taxes on imports, allow any quantity to be imported, but make it more expensive to do so. Tariffs may be a flat amount per item or a percentage of price.

   c. **Export Incentives** Subsidies are government payments to producers, typically in a protected industry. Indirect subsidies, or incentives, include favorable tax treatment on export-related income. This practice might have similar effects on the foreign country as import quotas or tariffs.

   d. **Substitution** Develop substitutes for imported products, for instance, photovoltaic-generated (solar) electricity replacing electricity generated from imported oil.

   e. **Shift Customer Preferences** Encourage consumers to buy domestic products as a patriotic activity, for instance, saving local jobs or national self-sufficiency. An American business that attempts a “Buy American” campaign for domestic marketing may have it backfire in foreign markets or in America if it uses imported components or raw materials. If a government sponsors this campaign, the potential for backlash might be minimized.

   f. **Domestic Content Quotas** Requiring, or encouraging through favorable tariff treatment, a portion of imported products in protected industries be constructed, at least partially, in the importing nation. Such a requirement typically is used by capital-intensive nations. Thus, parts produced utilizing idle capacity in capital-intensive countries are assembled in labor-intensive countries.

4. **European Union (EU)** The European Union is a federation of nations with four stated primary objectives: (1) establish European citizenship; (2) ensure freedom, security, and justice; (3) promote economic and social progress; (4) assert Europe’s role in the world. The European Union’s member nations delegate sovereignty to common institutions representing the interests of the EU as a whole on questions of joint interest. More countries are in the EU than are in the European Monetary Union.

   a. **European Monetary Union** The European Monetary Union shares one currency, the euro (€). It has several member nations: Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, and Spain.

   b. **Other** Denmark and the United Kingdom opted out of the EMU. Sweden has opted out of the EMU by failing to fulfill convergence criteria. Other countries that are part of the EU, are expected to work towards EMU entry requirements. Some countries outside of the EU also elect to use the Euro.

5. **North American Free Trade Agreement (NAFTA)** Partly in response to the EU, NAFTA is an agreement among Mexico, the United States, and Canada to reduce trade barriers among the three countries. The phase-out of tariffs on goods covered by the agreement was staggered over a lengthy period to allow producers to adapt gradually. NAFTA is considerably smaller in scope, concentrating on economic policies and not attempting integration on the scale of the EU.

6. **Dominican Republic—Central America Free Trade Agreement (CAFTA-DR)** Signed into law in 2005, the agreement came into force in 2009. CAFTA reduces barriers to US trade with El Salvador, Guatemala,

Honduras, Costa Rica, Nicaragua, and the Dominican Republic. In addition, it also requires important reforms of the domestic legal and business environment that are key to encouraging business development and investment in those five Central American countries and the Dominican Republic. CAFTA makes certain US exports duty-free immediately, while most other tariffs were phased out over a number of years.

Foreign Exchange

Exchange between entities in different countries requires either a common medium of exchange (such as the European market's Euro) or a ready means of converting currencies (such as a foreign currency exchange market).

Exercise 2.3 -Foreign Investment

A US parent company is reviewing the cash flows from its international subsidiaries. In addition to exchange rate risk, which of the following items would be a primary consideration in the company's cash flow analysis?

a. Repatriation restrictions
b. American depository receipts
c. Default risk premium
d. Foreign trade deficit

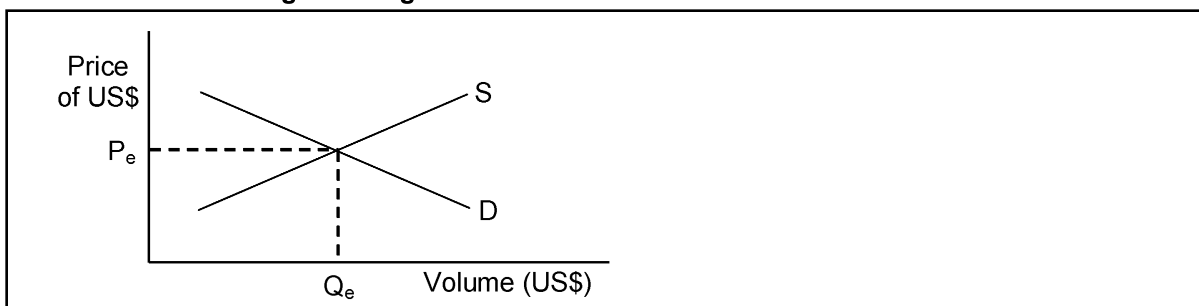
(a)Repatriation is the process of converting a foreign currency into US currency. The amount received depends upon the exchange rate between the two currencies being traded. Capital repatriation is the return of capital from abroad back to its country of origin. When currencies and economic conditions deteriorate, capital-importing countries might place restrictions on the repatriation of capital invested in their foreign subsidiaries.

An American Depository Receipt (ADR) is a negotiable financial instrument issued by a bank to represent a foreign company's publicly traded securities. Default risk premium is the excess of the risk-free rate of return that a lender receives (or an investment offers) for the perceived chance that the borrower will not pay back the loan. This is most common in the bond market, where firms with a greater chance of default pay more interest on a bond than safer, more stable companies pay. Foreign trade deficit is an economic measure of a negative balance of trade in which imports exceed exports, typically on a national level. Only repatriation would be a primary consideration in a US parent's cash flow analysis. (ID: 90617)

1. **Exchange Rate** An exchange rate is the price of one country's currency in terms of another currency. Currency appreciates when it can buy more units of another currency and depreciates when it can only buy fewer units of another currency.

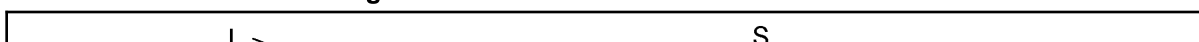
   a. **Market Equilibrium (Floating Exchange Rate)** Prices are set by market forces (supply and demand) just as for other goods. This can lead to occasional extreme short-run fluctuations. In the long run, assuming a free trade situation with perfect information, market interactions will set exchange rates such that relative prices will be equivalent worldwide. For practical purposes, relative price levels have merely significant influence on exchange rates.

Exhibit 2.17 - Floating Exchange Rate



   b. **Government Policy (Fixed Exchange Rate)** A government may set a fixed exchange rate. This has only limited success; to eliminate a surplus or deficit of payments between countries, the rate eventually must be returned to the equilibrium price.

Exhibit 2.18 - Fixed Exchange Rate



(1) **High Exchange Rate** If the price is set above the market equilibrium price, shown in Exhibit 2.18 as P_h, there is a surplus; more people are willing to supply than there is demand and a deficit of payments results. In the short-run, deficits may be met by using foreign reserves (previous payment surpluses) or by borrowing from the foreign country's central bank. Usually a country devalues its currency to improve its balance of payments; in other words, it lowers the price of its currency, reversing the effect of the fixed exchange rate set above market equilibrium.

(2) **Low Exchange Rate** If the price is set below the market equilibrium price, shown in Exhibit 2.18 as P_l, there is a shortage; not enough entities are willing to supply to meet the demand and a surplus of payments results. Eventually, the country will have greater foreign reserves than it wants and will have to raise the price of its currency to avoid further increases to its surplus.

c. **Managed Float** Market forces primarily guide exchange rates. Governments (or central banks, etc.) intervene to maintain stability during periods of extreme fluctuations.

2. **Foreign Exchange Market Operation**

   a. **Spot Rate** The spot rate is the rate paid for currency now (on the spot).

   b. **Forward Exchange Rate** The forward exchange rate is the rate agreed to be paid in the future. The difference between the spot rate and the forward exchange rate is called a discount or premium.

      If the forward rate is greater than the spot rate, speculators expect the currency to increase in value and, thus, are willing to buy at a premium. If the forward rate is less than the spot rate, speculators expect the currency to decrease in value and, thus, will buy only at a discount.

   c. **Interest Rates** The discount or premium is related to differences between true interest rates (nominal interest rates adjusted for inflation) paid by foreign and domestic banks, which in turn are related to differences in expected inflation between countries. Borrowing in the country with the lowest real interest rate is more advantageous. Borrowing in the country with the lowest nominal interest rate is not necessarily advantageous.

      (1) **High Domestic Rate** If the domestic interest rate is higher than the foreign interest rate, the forward exchange contract sells at a premium. If this were not true, speculators would borrow at the lower (foreign) interest rate and invest at the higher rate (in the domestic market) and then sell a forward exchange contract for the principal and interest.

      (2) **Low Domestic Rate** If the domestic interest rate is lower than the foreign interest rate, the forward exchange contract sells at a discount.

3. **Exchange Rate Influences** One currency will depreciate relative to another at a rate equivalent to the difference in their inflation rates. For example, one effect of a foreign country's currency conversion value changing from 1.5 to the US dollar to 1.7 to the US dollar would be that the foreign country's exports would be less expensive for the United States.

   Example 2.7 - Exchange Rates and Inflation

   At the beginning of the year, one Pan Kingdom pound (£) buys 2.00 Neverland dollars (N$). Annual inflation is 8% and 5% in the Pan Kingdom and Neverland, respectively.

   Required: What will be the exchange rate at year end?

   Solution: The difference in the inflation rate is 3%. The N$ will depreciate by 3% less than the £. At year-end, one £ buys only N$1.94. [(1 – 0.03) × N$2.00]

4. **Risk Avoidance** One way to avoid risk due to currency fluctuations is to minimize receivables and liabilities denominated in foreign currencies. Limiting transactions denominated in foreign currencies may limit an entity's foreign trade unduly, as not all customers or suppliers will be willing to trade in that entity's local currency.

   a. **Hedge** Hedging involves offsetting a gain or loss on receivables or payables denominated in foreign currencies by purchasing or selling forward exchange contracts. Buying these contracts covers liabilities in the foreign currency; selling covers receivables.

   b. **Balance** Entities with large amounts of foreign business establish centers to attempt to achieve balance between foreign receivables and payables.

   c. **Barter** If an entity barters (meaning that transactions are non-monetary) currency fluctuations don't affect the transaction.

      Example 2.8 - Barter

> Gold, Inc., an American company that makes Sugar Rush Cola, estimates that the cola market in Shiver, a former Soviet bloc country, will be highly profitable in a decade, when Shiver's vast resources are put to efficient use. Gold wants its product to become the cola market leader in Shiver now, in preparation for that period.
>
> Shiver placed restrictions on the exchange of currency to stop the drastic devaluation of rubles shortly after the conversion to a capitalistic market. If Gold imports cola to Shiver now, it will be paid in Shiver rubles. Shiver rubles currently are difficult to exchange into American dollars.
>
> Gold predicts that there is a high probability that, in accordance with its new economic discipline policy, Shiver will replace its rubles with euros at highly unfavorable rates before the decade is finished.
>
> **Discussion:** Gold's potential customers (wholesalers in Shiver) cannot convert rubles into dollars any more readily than Gold can. However, these customers can swap cola for vodka, which Gold can sell in America. Gold insulates itself from exchange risk by arranging a non-monetary trade.

5. **Foreign Investment Analysis** Foreign operations are more difficult to manage and control than domestic operations. As with any investment, relevant cash flows are the dividends and the potential future sales price. These cash flows must be adjusted for risks generally not considered with domestic investments. Further, both the host and home country may have tax structures that result in paying taxes on the same income to both countries. Also, there may be risk of loss of trade secrets or copyright risk issues.

    a. **Exchange Risk** Exchange risk is the risk that exchange rates will change.

    b. **Sovereignty Risk** Sovereignty risk is risk of significant restrictions on removal of the investment, either as dividends or sale of the operations, including nationalization. Nationalization is government ownership of business. A foreign government could appropriate assets or purchase them through a forced sale. Alternatively, a foreign government could establish a monopoly.

6. **Foreign Presence** Entities can expand into foreign markets in several ways.

    a. **Sales Representative** By contracting with an independent local representative, an entity can sell its goods with a minimum investment (typically, inventory in the host country is the only tangible asset that would be at risk). This arrangement also can result in a minimum of control.

    b. **Sales (or Production) Branch** By establishing a sales branch or plant staffed by employees, an entity would gain more control and also increased risk exposure to control by the host country's government.

       For instance, the host government's labor standards and income taxes would apply to the branch employees and income, respectively. Aside from the additional complexity of managing from a distance across cultural lines, attitudes to imported goods in the host country with only a sales branch may make this approach awkward.

    c. **Division** By establishing a stand-alone subsidiary (with production, sales, and perhaps financing) in a foreign country, an entity minimizes upsetting local stakeholders with imported goods. The total investment is larger, with production facilities as well as inventory involved. The host country may limit foreign ownership, compromising the entity's control. Also, duplication of facilities (domestic and foreign) may result.

7. **Multinational Operations** Proponents of multinational operations claim that they tend to support international trade, free trade policies, a more robust international monetary system, and improved cultural tolerance. Large multinational entities' size, complexity, and sophistication may make them difficult for countries to police or shareholders to have an effective say in corporate policies, leading to activities (such as cartels, questionable labor practices, etc.) that are the opposite of those positive characteristics.

    a. **Home Advantages** Royalties, dividends, and profits promote a favorable balance of payments. Local charities and cultural institutions may be supported at a disproportionately higher degree than foreign ones. A multinational entity may be better able to obtain scarce resources than a domestic one.

b. **Home Disadvantages** include potential reduced domestic investment, training, output, and tax revenues. Jobs may be lost to foreign subsidiaries and weakened unions. There is a greater risk of technology appropriation.

c. **Host Advantages** include additional investment of capital and technology, training for local labor, increased output and efficiency, stimulation of competition, increased tax revenues, and increased living standards.

d. **Host Disadvantages** Royalties, dividends, and profits may result in an unfavorable balance of payments. A multinational company may establish transfer pricing among subsidiaries so that profits are reported in the country of lowest taxes or least profit-exporting restrictions. Multinational competition may overwhelm struggling local competition.

   As multinational entities are willing to move into a country when the economic climate is favorable, they may be quick to leave as well. There also is an absent landlord effect: local management may have considerable autonomy as long as it meets profitability standards; if the same management had local shareholders, it might concern itself more with local goodwill. In this instance, if foreign shareholders were aware of the entity's actions in the context of host country's business climate, they might demand more such concern from local management.

Balance of Payments
International payments—imports, exports, debt or equity investments—rarely net to zero. The balance of payments (the deficit or surplus) typically is tracked in two principal accounts: current and capital; i.e., the balance of payments is the total of these two accounts.

1. **Current Account** The current account includes the balance of goods and services, net interest and dividends, and net unilateral transfers.

   a. **Balance of Trade** The difference between total imports and total exports of goods, excluding services, is the balance of trade.

   b. **Balance of Goods and Services** The difference between total imports and total exports of goods, including services, is the balance of goods and services.

   c. **Interest and Dividends** Total interest and dividends received within a country on investments outside of a country, offset by total interest and dividends paid outside a country on investments by foreign entities within a country.

   d. **Unilateral Transfers** Net unilateral transfers affect the deficit or surplus depending on whether the transfer is out or in. Unilateral transfers include foreign aid and payments to relatives. Pension payments often are counted as unilateral transfers.

2. **Capital Account** The capital account tracks capital flows resulting from the exchange of fixed or financial assets (i.e., equipment and securities). A capital account surplus (inflows exceed outflows) indicates that foreign entities buy more domestic equipment and securities than domestic entities buy foreign equipment and securities.

   a. **Security Sales** Purchases of domestic stocks and bonds by foreign entities, or inflows of investment (credits), increase foreign reserves.

   b. **Security Purchases** Purchases of foreign stocks and bonds by domestic entities, or outflows of investment (debits), consume foreign reserves.

3. **Deficit and Surplus** A deficit, also called an unfavorable balance of payments, is equalized by additional exports or reductions in reserves. A surplus is equalized by additional imports or increases in reserves. A surplus or deficit may impact the domestic economy.

Example 2.9 - Unfavorable Balance of Payments

More imports than exports cause a deficit balance of payments. If consumers are replacing purchases of domestic products with imported products, domestic demand is reduced, resulting in domestic production reduction and layoffs.

With domestic production reduced, less profit is available for investments. With reduced domestic demand, there is also less investment opportunity. So, domestic investors seek foreign investment opportunity, essentially importing foreign securities, increasing the deficit of balance of payments.

As domestic demand decreases, prices for domestic goods fall. These goods will find buyers among local entities that were importing goods as well as foreign entities, reducing the balance of payments. This automatic correcting process may result in unemployment and deflation.

4. **Control Strategies** Attempts at control usually focus on eliminating deficits in the balance of payments. Since one country's deficit balance is another's surplus balance, these attempts may encounter considerable resistance. See the information on trade barriers in this chapter.

5. **Debtor Nation Consequences**

   a. **Debt Service** Part of the GDP is used for debt service.

   b. **Reserves** A reserves reduction may lead to devaluation of money, inflation, and increased exports. There may be increased political pressure for trade protectionism.

   c. **Deficit** A decline in net imports and shrinking of the deficit in balance of payments.

   d. **Savings** Interest rates kept high to curb inflation and encourage foreign investment. Increased savings may occur as a result of economic uncertainty or high interest rates.

6. **International Monetary System** In the post-World War II period, the international monetary system was based on fixed exchange rates based on a modified gold standard. The US dollar became the key world currency for transactions and reserves. As war-damaged economies improved, the US dollar remained a key currency, so the US departure from the gold standard in the early 1970s radically changed the international monetary system. Initial agreements to allow currencies to float were disregarded as countries intervened frequently to support their currencies. The 1976 Jamaica Agreement established a system of managed floating exchanges, with each country having some autonomy in managing its exchange rate.

   a. **International Monetary Fund (IMF)** IMF resources are a currency pool available to cover member countries' short-term deficits in balance of payments.

   b. **World Bank** The World Bank lends money to underdeveloped countries for development.

   c. **Euro** The European Common Market combines most member countries' monetary systems into one system with the use of the Euro instead of individual currencies.

   d. **Dollars** Even transactions not involving any US entities frequently are denominated in US dollars, so there is a relatively high liquidity.

Transfer Pricing

Transfer pricing is the process of establishing prices used between related parties (typically divisions of the same company) for loans, sales or leases of tangible personal property, licensing of intangibles, and the sale of services. It is done to facilitate the determination of income for these divisions. Typically, international transfer pricing receives the most attention because of the tax implications; however, it can be used by an entity in a single location to measure performance by divisions or departments.

Example 2.10 - Transfer Pricing

Grand Prix Motors, Inc., is a multinational corporation with an engine plant in Germany and assembly plants in Sweden and Mexico. Only one set of transfer prices is used for both tax and financial reporting purposes. Of the three countries, corporate income taxes are highest in Sweden and lowest in Mexico.

Accordingly, Grand Prix sets a low transfer price on engines sent to Mexico and a high transfer price on engines sent to Sweden in order to produce the lowest taxable profits in Sweden, low taxable profits in Germany, and highest taxable profits in Mexico. The managers of the German engine plant have bonuses that fluctuate with profits for the German plant, so they reduce the emphasis on producing engines for export to Mexico.

1. **Considerations** Multidivisional and multinational firms use transfer pricing for coordination of divisional objectives, allocating internal resources, and maximizing after-tax profits, among other goals. Interdependencies of profit centers make the method and application of transfer pricing an important subject.

   Currently, most companies set transfer prices primarily to minimize overall corporate taxes. This approach ignores other important areas: management incentives among various divisions, allocation of production capacities, and guidance for future capital investment. It's legal to maintain two sets of transfer prices. Most people think of transfer pricing as a tax optimization issue, yet transfer prices also are management tools. They have important decision-making functions, valuing intermediate product so that regional managers may maximize the profit of the company as a whole.

   a. **Tax** Because governments base firms' tax liability on transfer prices, their taxing authorities operate to ensure transfer prices adequately reflect the value of goods and services, challenging firms' established transfer pricing if it is deemed necessary.

      For income tax purposes, a company may want to shift income from, or deductions into, a high-tax country. To reduce the amount of customs duties or property taxes, a company may want to reduce inbound price for imports.

   b. **Decision Making** A company may want to reduce amount of income of a particular subsidiary where employees participate in profits. Alternatively, a company may seek to generate information that provides a clear basis for internal decision making. For managerial purposes, when deciding what metric should be selected to evaluate a unit's performance, the following should be considered: controllability of costs, the effect of random shocks, and possible dysfunctional behavior induced by the evaluation system.

2. **Types** Transfer pricing determines how companies price goods or services that they transfer between their own divisions or related companies.

   a. **Market-Based Prices** When a product has an established market, the market price may be used. By definition, these transactions aren't arm's-length deals in an open marketplace, and, unless the involved divisions are at liberty to purchase or sell the goods from any source (a rare occurrence), these prices may not reflect economic reality or be appropriate bases for decision making.

   b. **Variable Cost Prices** In 1956, economist Jack Hirshleifer showed that the best economic result occurred when transfer prices were set either at a market price for the product being shipped or, failing that, the marginal cost of the item to the division making it; however, Hirshleifer's approach does not consider differences in corporate income taxes.

   c. **Full Cost Prices** Full cost prices tend to reduce incentives for the producing division to eliminate unnecessary costs.

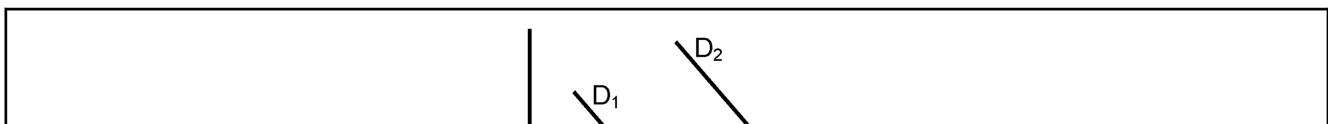
   d. **Negotiated Transfer Prices** may be set by the corporate entity, with various degrees of input from regional managers and considerations of market prices, costs, and other factors.

Supplemental Material

Law of Demand—Graphic Illustration

Typically, price is shown on the y-axis and quantity demanded is shown on the x-axis. Demand often is represented as a curve or line to illustrate consumers' smaller demand at a higher price, all other factors remaining the same. With the price and quantity demanded as the axes, there is no means to show changes, such as income changes, except by labeling different demand curves for such changes. An increase in demand is represented by a shift to the right.

Exhibit 2.19 - Positive Demand Curve Shift



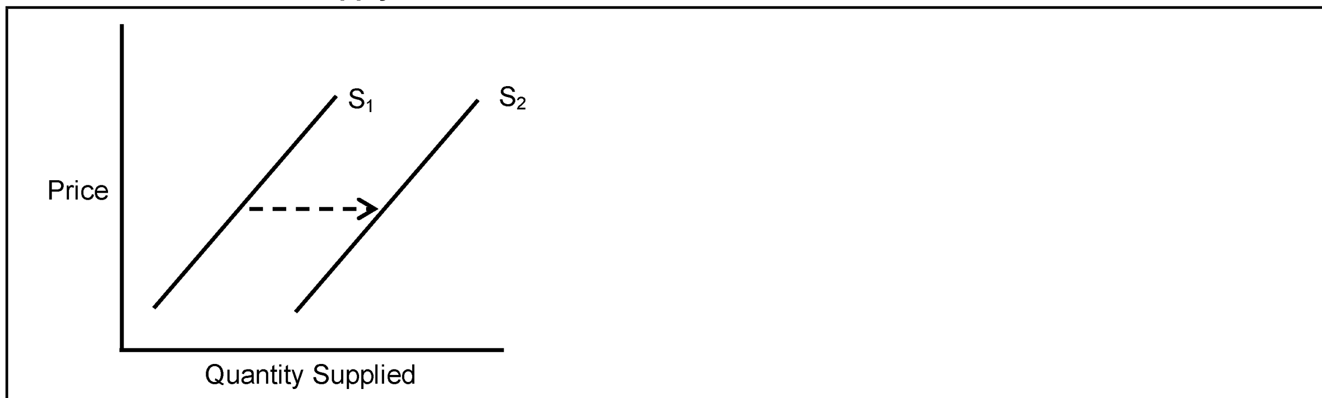
(1) Increase A positive shift in demand results from the following events: increase of substitute's price (Uber for Lyft); decrease in complement's price (land for building); for normal (or luxury) goods, an increase in consumer income; for inferior goods, a decrease in consumer income; expected future price increases, a favorable change in preferences (due, for instance, to an advertising campaign), an increase in the number of consumers, and the end of a boycott.

(2) Decrease A negative shift results from the opposite events.

Supply—Graphic Illustration

Typically, price is shown on the y-axis and quantity supplied is shown on the x-axis. Supply often is represented as a curve or line to illustrate producers' larger supply at a higher price, all other factors remaining the same. An increase in supply is represented by a shift to the right.

Exhibit 2.20 - Positive Supply Curve Shift



(1) Increase A positive shift in supply results from the following events: decrease of production cost; improvements in technology; a decrease in prices of other goods; and a decrease in expected future prices.

(2) Decrease A negative shift results from the opposite events.

Market—Graphic Illustration

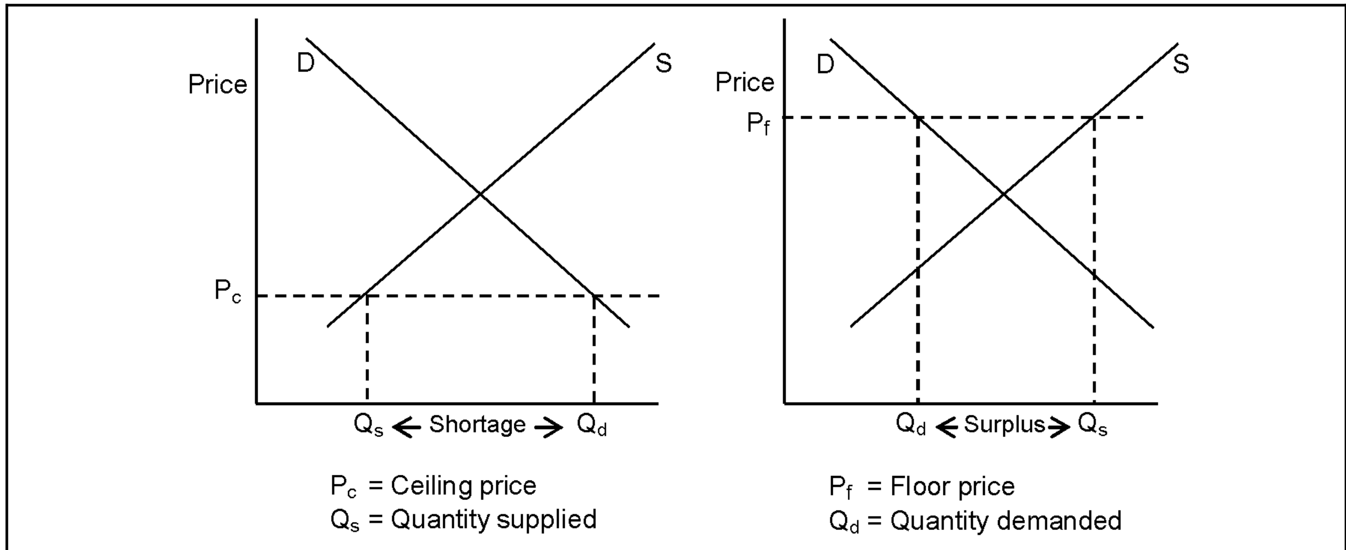
As price is shown on the y-axis and quantity is shown on the x-axis for both the supply and demand graphs, the two graphs can be superimposed to show the market as a whole. The point where the two curves intersect is market equilibrium. Pe is the equilibrium price and Qe is the equilibrium quantity.

Exhibit 2.21 - Market

Price Fixing—Graphic Illustration

In Exhibit 2.22, the shortage is the difference between Qd and Qs in the graph illustrating a ceiling set below market price and the surplus is the difference between Qd and Qs in the graph illustrating a floor set above market price.

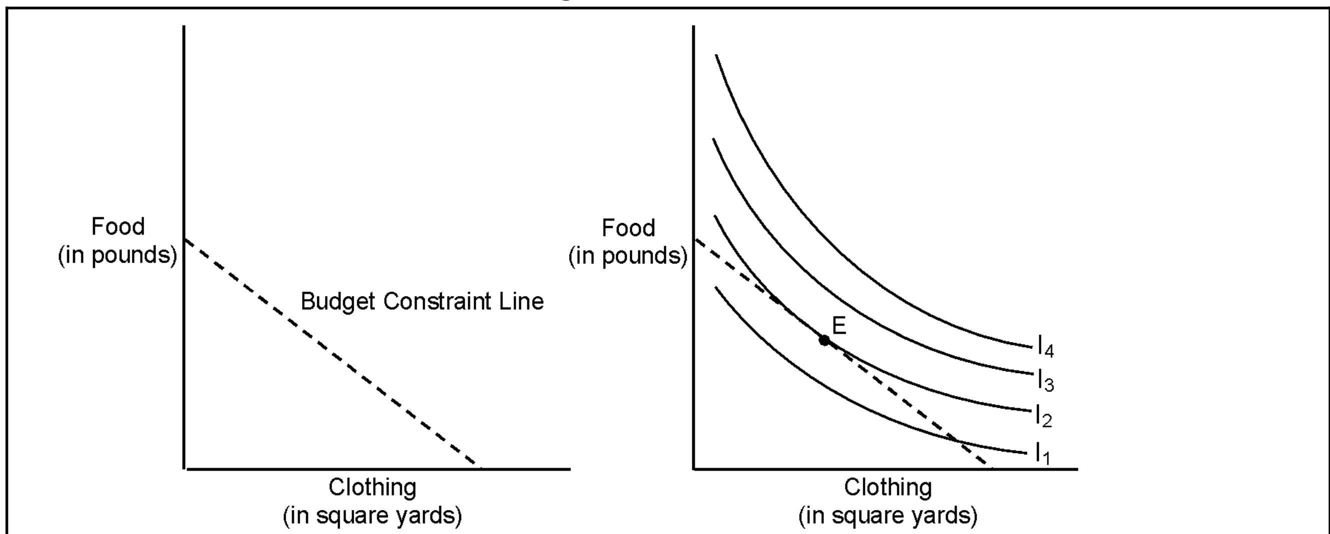
Exhibit 2.22 - Price Ceiling and Floor Graphs



Utility Theory—Graphic Illustration

The x-axis is the quantity of one good and the y-axis is the quantity of the other good. The point of maximum utility is where the budget constraint line is tangent to the highest possible indifference curve.

Exhibit 2.23 - Indifference Curves and Budget Constraint Lines



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