LM02 · ECONOMICS · CFA LEVEL I

Understanding Business Cycles

Phases, resource use, credit, housing, trade, theories, unemployment, inflation & indicators

What This Reading Covers

A business cycle is the recurring — but not periodic — fluctuation of real economic activity around its long-run trend. This module builds the vocabulary to identify where an economy sits in the cycle, how capital, labor, inventories, housing, and trade behave in each phase, what the major schools of thought say causes cycles, and how the three classes of **economic indicators** (leading, coincident, lagging) are used to diagnose and forecast the cycle.

Learning Outcome Statements

LOS a	Describe the business cycle and its phases
LOS b	Describe credit cycles
LOS c	Describe how resource use, consumer and business activity, housing sector activity, and external trade sector activity vary over the business cycle; describe their measurement using economic indicators
LOS d	Explain theories of the business cycle
LOS e	Interpret a set of economic indicators and describe their uses and limitations
LOS f	Describe types of unemployment and measures of unemployment
LOS g	Explain inflation, hyperinflation, disinflation, and deflation
LOS h	Explain the construction of indexes used to measure inflation
LOS i	Compare cost-push and demand-pull inflation

Exam Tip: LM02 is vocabulary-heavy but mechanical: know the **order of phases**, what happens to **inventory, labor, and capital spending** in each, the **LEI / coincident / lagging lists**, and the formulas for the **unemployment rate**, **labor-force participation rate**, and **inflation rate**.

LOS A · BUSINESS CYCLE & ITS PHASES

What Is a Business Cycle?

Business cycles are **recurrent but not periodic** — they can last anywhere from **one to twelve years**. The *contraction* phase is typically **shorter** than the *expansion* phase.

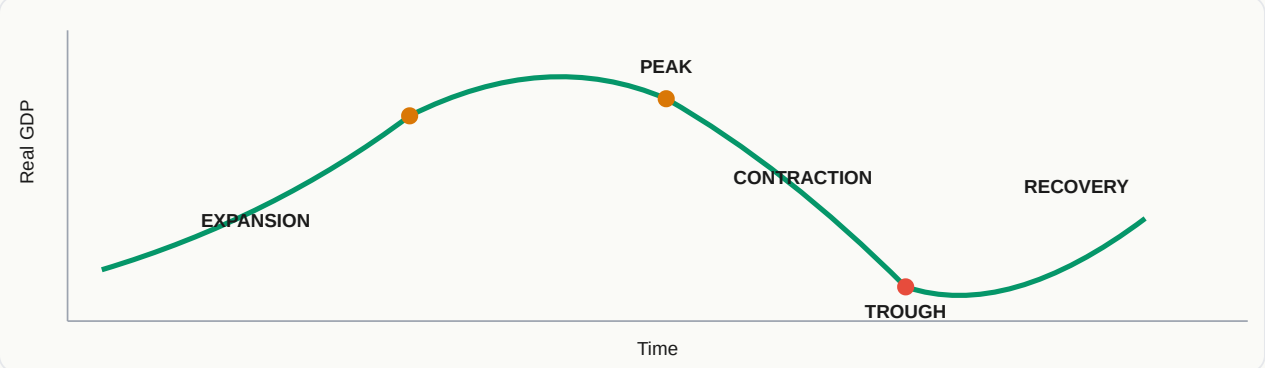
Three Ways to Measure the Cycle

MEASURE	WHAT IT TRACKS	USE
1. Classical cycle	Level of real GDP relative to a beginning value	Traditional view — not very useful to practitioners
2. Growth cycle	Fluctuations in output *around* a long-term trend (% difference between real GDP and trend)	Most used by economists and practitioners
3. Growth-rate cycle	Changes in the annualized percentage growth rate from one period to the next, relative to a trend rate	Preferred measure of economists; identifies "growth recessions" — positive but below-trend growth

Relative to the classical cycle, in the **growth cycle** peaks come **earlier** and troughs come **later**, because the growth-cycle reference is the *trend*, not zero growth.

The Classical 4-Phase Model (Schweser / NBER framing)

REAL GDP OVER THE CYCLE — FOUR TURNING POINTS



Expansion

Real GDP is *increasing*

Peak

Contraction

Trough

	Real GDP stops increasing, begins decreasing	Real GDP is *decreasing* (recession)	Real GDP stops decreasing, begins increasing

The 5-Phase Model (CFA / IFT / Kaplan framing)

Practitioners subdivide expansion and contraction, yielding five descriptive phases built around two troughs:

1. **Recovery** — economy moves through the trough; activity is below potential but starting to increase.
2. **Expansion** — recovery gathers momentum; activity rises above potential. The "boom" phase.
3. **Slowdown** — economy moves through the peak; activity is still above potential but beginning to decelerate.
4. **Contraction** — activity falls below potential; may become a recession (two consecutive quarters of negative growth).
5. **Trough** — the bottom; economy stops decreasing and begins to recover.

NBER — Who Calls a US Recession?

The **National Bureau of Economic Research (NBER) Business Cycle Dating Committee** uses time-series analysis of **employment, sales, and production** to identify *turning points* (peaks and troughs).

LOS A · CHARACTERISTICS OF EACH PHASE

GDP, Unemployment & Inflation Through the Cycle

PHASE	GDP GROWTH	UNEMPLOYMENT	INFLATION	OTHER
Recovery	Negative → positive	High; reliance on overtime and temporary workers	Moderate or declining	Consumer durables & housing spending may rise
Expansion	Increasing	Falls as hiring accelerates	May begin to rise	Investment rises in equipment & construction; imports rise
Slowdown	Decreases (still positive)	Still falling, but hiring slows	Increasing	Consumer/business confidence declines; investment growth slows
Contraction	Declining (may be negative 2 quarters)	Rises as firms cut back production	Decreases *with a lag*	Consumer spending, home construction & business investment decline; imports fall

Inflation Lags the Cycle

A key test point: inflation **decreases with a lag** after a contraction begins and typically continues to rise *into* the slowdown even as GDP growth weakens. This is why inflation appears on the **lagging** indicator list.

LOS C · RESOURCE USE OVER THE CYCLE

Inventories, Labor & Capital Spending

Inventories — Adjusted Quickly

Firms hold inventory to meet expected demand. The key watch-ratio is the **inventory/sales (I/S) ratio**.

Recovery	Sales decline slows then recovers; production lags sales growth → **I/S ratio declines**.
Expansion	Sales rise; production ramps up to rebuild finished-goods stocks; demand for raw materials and intermediates rises → I/S ratio stable.
Slowdown	Sales slow faster than production → inventories build; firms cut production and cancel orders → **I/S ratio rises**.
Contraction	Production runs below sales to work off excess stock → I/S ratio returns toward normal.

The inventory/sales ratio **rises late in expansions** (as sales slow) and **falls near the end of contractions** (as sales accelerate again). Watch this ratio for turning points.

Labor — Adjusted Slowly

Because hiring and firing employees is costly, firms prefer to adjust *use* of current employees rather than headcount. As a result, firms are **slow to lay off** early in contractions and **slow to add** early in expansions.

Recovery	Redundancies slow; firms rely on **overtime and temporary workers** rather than new hires; unemployment remains higher than average.
Expansion	Shift from overtime / temps to **new hires**; unemployment falls.
Slowdown	Firms continue hiring but at a slower rate; unemployment falling, but more slowly.
Contraction	Employee hours cut, overtime reduced, hiring freezes, redundancies if protracted → unemployment rises.

Capital Spending (PP&E) — Pro-cyclical & Volatile

Firms use physical capital more intensively during expansions and invest in new capacity only if they believe the expansion is likely to continue. They prefer to reduce capacity by **deferring maintenance** and **not replacing equipment** rather than selling assets.

Recovery	Low capacity-utilization rates; low interest rates support investment. Capex focused on **efficiency, not capacity**. **Software & IT** spending recovers before heavy equipment.

Expansion	Capacity utilization rises; productive capacity may lag demand; growth in earnings and cash flow funds investment.
Slowdown	Higher interest rates slow investment; firms continue to invest as they operate close to capacity.
Contraction	Decline in demand, earnings, cash flow → **new orders stopped, orders cancelled; IT and light equipment cut first**.

Exam Tip: Order of cuts in a contraction: **IT/light equipment first → heavy equipment later**. Order of hires in a recovery: **overtime/temp workers first → permanent hires later**. Both reflect that firms want to preserve cash flow and avoid committing until the recovery looks durable.

LOS C · CONSUMER BEHAVIOR & HOUSING SECTOR

Consumer Spending & the Housing Cycle

Consumer Spending

Consumer spending is **less cyclical** than investment spending, but different components vary:

Durable goods	**Highly cyclical** — higher-value purchases consumers defer when income or confidence falls.
Discretionary services	Positively correlated with the cycle.
Nondurables & nondiscretionary services	Relatively stable over the cycle.

Permanent income (which excludes temporary income and unsustainable losses or gains) correlates well with non-discretionary spending. **Disposable income** (Y_d) is positively related to spending on durable goods.

Household savings: a rise in savings may indicate future caution; a large *stock* of savings signals consumption potential without the need for income growth.

Economic data used: Consumer Confidence index · ISM Services · Retail Sales.

The Housing Cycle — Four Drivers

Housing is one of the most cyclical sectors. Four factors drive it:

1. **Mortgage rates** — rates ↑ → housing ↓.
2. **Income / housing-cost ratio** — income ↑ relative to costs → housing ↑. A low (income ÷ average home price) ratio begins to work against higher prices.
3. **Speculation** — home purchases based on expected price increases (e.g., 2007–2008). Encourages overbuilding and rising inventories.
4. **Demographics** — rate of family formation (the 25–40 age segment) and geographic shifts in population density.

Housing Through the Cycle — Price, Construction, Inventory

Early expansion	Low rates support prices · Income/price ratio high · Construction rises
Mid-expansion	Rising incomes, rates still supportive, housing prices rising

Peak	Rates rise; low income/price ratio begins to work against higher prices; late "momentum" buyers and speculators enter; overbuilding; inventories rise
Contraction	Construction drops; prices fall

Housing Sector Data Points

New / Existing Home Sales

Demand side

Building Permits

Supply side — construction activity (a LEI component)

HPI — Housing Price Index

Median home prices

LOS C · EXTERNAL TRADE SECTOR

How International Trade Varies Over the Cycle

Imports depend on **domestic** incomes and therefore on the domestic business cycle. Exports depend on **foreign** incomes and are relatively independent of the domestic cycle. Both imports and exports are also influenced by the **currency exchange rate**.

Income Effect — Domestic Cycle Drives Imports

DOMESTIC PHASE	IMPORTS	EXPORTS
Expansion	Increase (higher incomes → more demand for foreign goods)	Depend on ROW — the rest of the world — primary trading partners
Peak	Imports peak	Depend on ROW cycle
Contraction	Below average, then drop as incomes fall	Depend on ROW cycle

FX Effect — The Exchange-Rate Channel

High exchange rate (domestic currency appreciates)

Encourages imports (foreign goods are cheaper) · Discourages exports (domestic goods more expensive abroad)

Low exchange rate (domestic currency depreciates)

Imports ↓ · Exports ↑

Short-term FX fluctuations have **minimal effect** on trade flows — rates need to move in one direction for some time before import/export volumes respond meaningfully. The key indicator is the **trade balance**.

QUIZ 1 · CHECKPOINT

Test Your Understanding: Phases & Resource Use

Q1. Which of the following is *not* one of the four phases in the classical business-cycle model?

Q2. Which cycle measure is *most preferred* by economists and practitioners?

Q3. Late in an expansion, the inventory-to-sales ratio typically:

Q4. During an economic recovery, firms typically increase labor input by *first*:

Q5. A country whose domestic currency *appreciates* will *most likely* experience:

LOS B · CREDIT CYCLES

The Credit Cycle

A **credit cycle** describes cyclical fluctuations in interest rates and the availability of loans. Credit supply and pricing respond to lenders' willingness to bear risk — which itself moves with the economy.

How Credit Moves with the Economy

Strong economy

High credit availability on *favorable* terms · lower interest rates · willingness to lend rises · often leads to **asset-price and real-estate bubbles**

Weak economy

Tight credit · higher rates · lenders less willing to lend · asset values decline · further economic weakness and higher defaults

Relationship to the Business Cycle

1. Credit cycles tend to be **longer in duration**, **deeper**, and **sharper** than business cycles.
2. Credit cycles **amplify** business cycles via financial leverage — more extensive expansions, deeper recessions.
3. The stage of the credit cycle (growth or contraction) determines the direction of **housing and construction** markets and affects the extent of expansions and contractions.
4. Credit-cycle contraction + business-cycle contraction = more severe recession.
5. **Strong peaks** in credit cycles are closely associated with **systemic banking crises** (e.g., 2000, 2008).

Exam Tip: Remember the amplification direction: credit is a *pro-cyclical accelerator*. Easy credit extends booms and inflates bubbles; tight credit deepens busts. A collapsing credit cycle is the single most reliable precursor of a banking crisis.

LOS D · THEORIES OF THE BUSINESS CYCLE

Five Schools of Thought

Each school identifies a different *source* of cyclical fluctuations and prescribes a different policy response.

SCHOOL	SOURCE OF THE CYCLE	KEY TENETS & POLICY VIEW
Keynesian	Fluctuations in *aggregate demand*	Market mechanism is imperfect (**sticky wages & prices**) — adjustment to full employment is slow. Advocate **discretionary fiscal policy** (and money) to manage the economy back to full employment.
Neoclassical / Real Business Cycle (RBC)	*Technology / productivity shocks* in a competitive economy	Markets clear and prices/wages are flexible. Cycles are the *efficient* response of rational agents to real shocks (e.g., technology changes). No active stabilization is needed — policy cannot improve on market outcomes.
Monetarist	Inappropriate growth or contraction of the *money supply*	Reject discretionary fiscal and monetary activism; prices are flexible but monetary instability causes cycles. Advocate **predictable, rule-based growth of the money supply** (a "k-percent rule").
Austrian	*Government intervention*, particularly excessive credit creation and policy-induced low interest rates	Easy credit produces misallocation of capital into unsustainable investments (malinvestment); the inevitable bust corrects the distortion. Prescribe minimal intervention and hard money.
Neo-Keynesian (New Keynesian)	Aggregate-demand shocks amplified by *nominal rigidities*	Build Keynesian sticky-wage/sticky-price results on microfoundations. Monetary policy is an effective short-run stabilization tool; fiscal policy useful at the zero lower bound. Central banks should target inflation credibly.

Demand Shocks vs. Supply Shocks

A **demand shock** (AD > AS) — too much demand for goods and services — raises inflation and output together. A **supply shock** — an increase in factor-of-production costs (often commodity prices) — reduces aggregate supply and can cause **inflation and unemployment simultaneously (stagflation)**. Discretionary demand management can target only one at a time.

Exam Tip: Map each theory to a single-word *source*: Keynesian → demand · Monetarist → money · Austrian → intervention · Neoclassical/RBC → technology · Neo-Keynesian → rigidities. The policy prescription follows directly

from the source.

LOS F · TYPES & MEASURES OF UNEMPLOYMENT

Labor Force Definitions & Types of Unemployment

Who's Who in the Labor Market

CATEGORY	DEFINITION
Working-age population	All persons of working age (typically 16+) in a country.
Labor force	Working-age persons who are either employed *or* actively seeking employment (unemployed). Excludes people not looking for work.
Employed	Have a job (any number of paid hours).
Unemployed	Do not have a job *and* are actively seeking one.
Discouraged workers	Have stopped looking for work because they believe no jobs are available. **Not counted** in the labor force — so they do *not* appear in the unemployment rate.
Underemployed	Employed part-time but want full-time work, *or* employed in jobs well below their skill/qualification level. Counted as employed.
Long-term unemployed	Unemployed for an extended period (often ≥ 27 weeks in US data).

Three Types of Unemployment

Frictional

Time between jobs — workers transitioning between positions or new entrants searching. Exists even in a healthy economy; unavoidable.

Structural

Skills mismatch — workers' skills don't match available jobs (due to technology, industry shifts, geography). Requires *retraining*; longer-lasting than frictional.

Cyclical

Caused by the business cycle — rises in contractions, falls in expansions. Zero at **full employment**.

Natural rate of unemployment = frictional + structural. When cyclical unemployment = 0 and the economy is operating at full employment, the actual unemployment rate equals the natural rate.

Key Rates

UNEMPLOYMENT RATE

$$UR = \frac{\text{Unemployed}}{\text{Labor Force}}$$

LABOR-FORCE PARTICIPATION RATE

$$LFPR = \frac{\text{Labor Force}}{\text{Working-Age Population}}$$

UR	unemployment rate	$LFPR$	labor-force participation rate
LF	employed + actively-seeking unemployed	WAP	working-age population (excludes children, retirees)

EXAMPLE 1

Calculating the Unemployment Rate

GIVEN

Working-age population	250,000
Employed	144,000
Unemployed (actively seeking)	16,000
Discouraged workers	8,000
Not in labor force (other)	82,000

? FIND

The labor-force size, unemployment rate, and labor-force participation rate.

SOLUTION

→ SOLUTION

1. Labor force = employed + unemployed. Discouraged workers are *not* included.

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LF = 144,000 + 16,000 = 160,000
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2. Unemployment rate.

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UR = 16,000 / 160,000 = 0.10 = 10.0%
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3. Labor-force participation rate.

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LFPR = 160,000 / 250,000 = 0.64 = 64.0%
```

✓ ANSWER

Labor force	**160,000**
Unemployment rate	**10.0%**
Participation rate	**64.0%**

◆ TAKEAWAY

The unemployment rate *understates* labor-market weakness because 8,000 **discouraged workers** are outside the labor force. If they resumed job search, the labor force would rise to 168,000 and the measured UR would rise to 24,000/168,000 = 14.3%.

Exam Tip: The unemployment rate is a **lagging** indicator because firms are slow to hire at the start of a recovery and slow to lay off at the start of a contraction. Watch initial claims (a LEI) for the leading signal.

LOS G–I · INFLATION, INDEXES & TYPES

Inflation Measures & Price Indexes

Definitions

Inflation	A sustained rise in the general price level.
Hyperinflation	Extremely rapid inflation, often > 50% per month.
Disinflation	A *slowing* rate of inflation (still positive, just lower).
Deflation	A sustained *fall* in the general price level (negative inflation).

Three Principal Price Indexes

INDEX	MEASURES	BASKET / CONSTRUCTION
CPI — Consumer Price Index	Prices of a typical *urban-household* consumption basket	Laspeyres-style fixed basket; re-weighted periodically. Used in wage & benefit indexation.
PPI — Producer Price Index	Prices received by *domestic producers* at the wholesale stage	Often a leading signal for CPI, because producer-cost changes pass through to consumer prices with a lag.
GDP deflator	Prices of *all* domestically produced final goods & services	Broadest; uses current-period quantities (Paasche-style). = Nominal GDP / Real GDP × 100.

Headline vs. Core Inflation

HEADLINE

The full index (e.g., all-items CPI). Includes **food and energy**.

CORE

Excludes **food and energy** — the two most volatile components. Preferred by central banks as a measure of *underlying* inflation.

The US **Federal Reserve has no explicit inflation target**. Implicitly, it uses the **core PCE (Personal Consumption Expenditure) deflator** at approximately **2%** as consistent with stable prices.

Demand-Pull vs. Cost-Push Inflation

	DEMAND-PULL	COST-PUSH

Source	Aggregate demand > aggregate supply (a *demand shock*)	Rising input/factor costs — commodities, wages — reducing aggregate supply (a *supply shock*)
Output effect	Rises (economy above potential)	Falls or flat — can produce **stagflation**
Unemployment	Typically falls	Can *rise* alongside inflation (stagflation)
Signal watched	Output gap, capacity utilization, unit-labor cost growth when unemployment below natural rate	Commodity prices (especially energy), import prices, supply-chain disruptions

EXAMPLE 2

Calculating the Inflation Rate from CPI

▤ GIVEN

CPI, end of Year 1	248.0
CPI, end of Year 2	255.4

? FIND

The Year-2 inflation rate.

SOLUTION

→ SOLUTION

1. Inflation = % change in the price index.

$$\pi = (CPI_t - CPI_{t-1}) / CPI_{t-1}$$

2. Plug in.

$$\pi = (255.4 - 248.0) / 248.0 = 7.4 / 248.0$$

3. Evaluate.

```
= 0.02984 = 2.98%
```

✓ **ANSWER**

2.98%

Above most central-bank 2% targets → likely contractionary bias in near-term policy.

◆ **TAKEAWAY**

Whatever the index — CPI, PPI, or GDP deflator — the inflation rate is the % change between the two dates. Remember to *divide by the earlier value*.

QUIZ 2 · CHECKPOINT

Test Your Understanding: Theories, Unemployment & Inflation

Q6. Which school of thought is *most likely* to attribute business cycles to inappropriate fluctuations in the money supply and to advocate predictable, rule-based money-supply growth?

Q7. A worker with a PhD in organic chemistry who is bartending while searching for a position matching her qualifications is *best* classified as:

Q8. A country has 180,000 working-age people, 110,000 employed, 10,000 unemployed (actively seeking), 5,000 discouraged workers, and 55,000 others not in the labor force. The unemployment rate is closest to:

Q9. A sharp rise in oil prices causes both inflation and unemployment to increase. This pattern is *most consistent* with:

Q10. Which index is calculated as Nominal GDP / Real GDP × 100 and covers *all* domestically produced final goods and services?

LOS C & E · ECONOMIC INDICATORS

Leading, Coincident & Lagging Indicators

Economic indicators are used to **assess the current state** of the economy and to **forecast future activity**. They are classified by whether their turning points precede, coincide with, or follow the turning points of the business cycle.

The Three Classes

LEADING

Turning points *precede* those of the business cycle → used to **forecast**.

COINCIDENT

Turning points occur at *roughly the same time* as the cycle → used to **identify the current phase**.

LAGGING

Turning points occur *after* those of the cycle → used to **confirm** a turning point happened.

US Leading Economic Index (LEI) — The Conference Board

1. Average weekly hours, **manufacturing**
2. Average weekly **initial claims** for unemployment insurance
3. Manufacturers' **new orders** for consumer goods and materials
4. ISM **new-order** index
5. Manufacturers' new orders for **non-defense capital goods** (ex-aircraft)
6. **Building permits** for new private housing units
7. **S&P 500** stock index
8. **Leading Credit Index** — strength of the financial system
9. **Yield spread**: 10-year Treasury minus federal funds rate
10. Average consumer **expectations** (for business/economic conditions)

The OECD also publishes a **Composite Leading Indicator (CLI)** across member economies.

Coincident Indicators

- **Industrial production** index
- **Non-farm payrolls** (employees on non-agricultural payrolls)
- **Real personal income** (less transfer payments)
- **Manufacturing & trade sales**

Lagging Indicators

- Average **duration of unemployment**
- **Inventory/sales** ratio
- Change in **labor costs per unit of output**
- **Inflation** (consumer-price change)
- Average **prime lending rate**
- Ratio of **consumer debt payments to income**
- **Commercial & industrial loans** outstanding

Modern Tools

Big Data & principal-component analysis extract shared trends across many noisy series. **Nowcasting** uses real-time data (card spending, mobility, shipments) to forecast GDP, because official GDP reports lag reality by weeks or months.

Exam Tip: A common exam trick: the **yield-curve spread** (10y − fed funds) is a *leading* indicator, while the **prime rate** is *lagging*. Similarly **initial claims** lead, **duration of unemployment** lags. Same raw idea, opposite classifications — because of timing of the *change*.

QUIZ 3 · CHECKPOINT

Test Your Understanding: Credit, Indicators & Housing

Q11. Which of the following is *most accurate* regarding credit cycles?

Q12. Which of the following is *least likely* a component of the US Leading Economic Index (LEI)?

Q13. Industrial production, non-farm payrolls, and real personal income are *best* described as:

Q14. Which of the following is *least likely* to support rising housing prices?

Q15. The CPI is 200 at the start of the year and 210 at the end. The year's inflation rate is closest to:

MODULE COMPLETE

Your Scorecard

0 / 15

LM02 Key Takeaways — Exam-Ready Cheat Sheet

Phases & Characteristics

1. **Four classical phases:** expansion → peak → contraction → trough. **Five-phase model:** recovery → expansion → slowdown → contraction → trough. Cycles are recurrent but not periodic; 1–12 years; contractions shorter than expansions.
2. Growth cycle = fluctuations around trend; growth-rate cycle = changes in the growth rate. Both preferred over the classical (level) cycle.

Resource Use & Sectors

3. **Inventory/sales ratio** rises late in expansions (sales slow faster than production) and falls near the end of contractions.
4. **Labor** is adjusted slowly: overtime/temps first in recovery; IT and light equipment cut first in contraction.
5. **Housing** drivers: mortgage rates, income/price ratio, speculation, demographics (25–40 family formation).
6. **Trade:** imports depend on *domestic* incomes; exports on *foreign* incomes. Appreciation → imports ↑, exports ↓; depreciation → reverse.

Credit & Theories

7. **Credit cycles** are longer, deeper, sharper than business cycles; amplify booms and busts; strong peaks precede banking crises.

8 **Theories:** Keynesian (demand + sticky wages) · Monetarist (money supply) · Austrian (intervention/easy credit) · Neoclassical/RBC (technology shocks) · Neo-Keynesian (rigidities, inflation targeting).

Unemployment & Inflation

9 **Types:** frictional (between jobs) · structural (skill mismatch) · cyclical (tied to cycle). Natural rate = frictional + structural.

10 **UR** = unemployed / labor force; **LFPR** = labor force / working-age pop. Discouraged workers are *not* in labor force; underemployed *are* employed.

11 **Indexes:** CPI (consumer basket, Laspeyres) · PPI (producer prices) · GDP deflator (all final domestic, Paasche). **Core** excludes food & energy.

12 **Demand-pull** (AD > AS) vs **cost-push** (supply shock — can cause stagflation). $\pi = (P_t - P_{t-1}) / P_{t-1}$.

Indicators

13 **Leading:** initial claims, building permits, S&P 500, yield spread, consumer expectations, ISM new orders, manufacturers' new orders, weekly manufacturing hours, Leading Credit Index.

14 **Coincident:** industrial production, non-farm payrolls, real personal income, manufacturing & trade sales.

15 **Lagging:** duration of unemployment, I/S ratio, labor cost per unit, inflation, prime lending rate, consumer debt/income, C&I loans.

Last-Minute Exam Checklist

Phases: expansion → peak → contraction → trough (4); recovery / expansion / slowdown / contraction / trough (5)

Unemployment rate: unemployed / labor force (discouraged workers excluded)

Inflation rate: $(P_t - P_{t-1}) / P_{t-1}$

Indicators fastest mnemonic: S&P 500 & yield curve LEAD · payrolls COINCIDE · inflation & prime rate LAG

Demand-pull = too much spending; **cost-push** = input costs ↑ → possible stagflation

Schools: Keynes (demand), Monetarist (money), Austrian (intervention), RBC (technology), Neo-Keynesian (rigidities)

Step 1 of 15