

Economic Crisis

Economic crisis: An interruption in the accumulation process.

Short-run economic crisis: A sudden, sharp decline in production, sales, profit, and employment in a country or region.

Typically lasts 6 months to several years.

Long-run economic crisis: A prolonged decline in the rate of accumulation.

Lasts one to several decades.

Classical/Neoclassical Tradition

Ricardo: Overproduction relative to demand is not possible.

Say's Law: Supply creates its own demand.

A producer produces in order to consume and so production generates an equal demand for output.

Classical/Neoclassical Tradition (con't)

Sophisticated version: Interest rate adjusts to assure that
 $AD = AS$.

$AD = C + I$ (no corporations, govt, foreign trade)

$AS = C + S$ (S = saving, not surplus here!)

If $AD < AS$, then $I < S \rightarrow i$ falls $\rightarrow I$ rises, S falls (and hence C rises) $\rightarrow AD$ rises until $AD = AS$.

Conclusion: economic crises are due to factors external to the economy: natural events, state actions.

State actions that cause a crisis: monetary contraction, budget deficit.

Keynes

I is mainly a function of expectations, not interest rate.

S and C are functions of Y (income), not interest rate.

Implication: If $AD < AS$, Y falls until S has fallen to equal I.

Sequence: Expectations \rightarrow I \rightarrow AD \rightarrow equilibrium Y.

Y_e can be less than the full employment Y.

Thus, in equilibrium $AD = AS$ but the adjusting variable is not i but Y.

Anti-crisis policies: increase G, reduce i.

Crisis Tendencies

1. Tendency of the rate of profit to fall (rising c/v)
2. Profit squeeze (falling s/v)
3. Underconsumption
4. Disproportionality
5. Over-investment
6. Money and credit problems
7. State effects
8. Institutional collapse

Rising c/v

Mechanism: $r = (s/v)/(c/v + 1)$. As $c/v \uparrow$, $r \downarrow$
assuming no change in s/v .

Counteracting tendencies: developments that
cause either

- 1) a slowing in the rise of c/v
- 2) a rise in s/v

Crisis: $c/v \uparrow \Rightarrow r \downarrow \Rightarrow$ crisis

Rising c/v : critiques

A. Does c/v tend to rise?

Yes: (defense of c/v crisis theory)

1. If c/v does not rise, reserve army $\downarrow \Rightarrow w \uparrow$
 \Rightarrow incentive to replace LP by MP $\Rightarrow c/v \uparrow$.
2. Workers resist domination while means of production do not.

Rising c/v: critiques (con't.)

A. Does c/v tend to rise?

No (not necessarily): (criticism of c/v crisis theory)

1. Once production becomes mechanized, much of the further technological change involves replacing old machines with new machines, not replacing labor power with machines. There is no reason to expect machine-replacing changes to raise c/v.
2. Over time rapid growth has occurred in less mechanized sectors, which tends to reduce the average c/v even if c/v \uparrow within sectors.

Rising c/v : critiques (con't.)

B. Will increases in c/v dominate the effects of increases in s/v ?

Yes: (defense of c/v crisis theory)

1. Wright's argument: He shows the partial derivative of the rate of profit with respect to the rate of exploitation falls as c/v rises and as e rises.

Not good methodology.

Should use an elasticity concept

Rising c/v : critiques (con't.)

Should use an elasticity concept:

$$E = \frac{\Delta e/e}{\Delta q/q} \text{ keeping } r \text{ constant.}$$

Can derive $E = q/(q+1)$ which goes from 0 to 1 as q and e increase.

If define $q' = c/(v+s)$, then for elasticity variable E' :

$$E' = \frac{q'}{q'+1}(1+e)$$

As q' and e increase, E' rises above 1 and increases without limit.

Rising c/v : critiques (con't.)

Another way of making the same point about a limit on the possibility of rising e preventing rising q from reducing the rate of profit:

Using definition of OCC = $c/(v+s)$, can show that, if OCC increases indefinitely, eventually r must fall because $s/(v+s)$ has an upper bound of 1.

$$r = \frac{\frac{s}{(v+s)}}{\frac{c}{v+s} + \left(1 - \frac{s}{v+s}\right)} \rightarrow 0 \text{ as } e \text{ and } q' \rightarrow \text{infinity.}$$

Rising c/v : critiques (con't.)

B. Will increases in c/v dominate the effects of increases in s/v ?

No: (criticism of c/v crisis theory)

1. $c/(v+s)$ might never rise high enough to cause r to fall.
2. Any act of replacing LP by MP is undertaken because it raises s/v .
3. Okishio Theorem: With a constant real wage, any new technology that an individual capitalist would introduce will have the effect of raising the average rate of profit in the economy as a whole.

Rising c/v : critiques (con't.)

Criticisms of relevance of Okishio Theorem to rising c/v crisis tendency:

1. Aim of individual capitalist is not to raise the individual rate of profit but to cheapen the CD, and this criterion for innovation does permit innovations that will lower the average rate of profit for the economy.
2. It is wrong to assume a fixed real wage when innovation is taking place. Innovation is likely to result in a higher real wage, which makes possible a decline in the rate of profit.
3. Okishio Theorem is based on equilibrium analysis.
4. Given monopoly power, the Okishio Theorem may not be valid.

Rising c/v : critiques (con't.)

Responses to criticisms of Okishio Theorem:

1. No capitalist would introduce a technology that did not raise the rate of profit for that capitalist.
2. If innovation results in a higher real wage which in turn leads to a decline in r , then this is not a case of the rising c/v crisis tendency but rather is a case of the falling s/v crisis tendency.

Marx on Underconsumption

“The ultimate reason for all real crises always remains the poverty and restricted consumption of the masses as opposed to the drive of capitalist production to develop the productive forces as though only the absolute consuming power of society constituted their limit.”

From *Capital* volume III, ch. 30, p. 484.

Marx against Underconsumption

“It is sheer tautology to say that crises are caused by the scarcity of effective consumption, or of effective consumers. ... But if one were to attempt to give this tautology the semblance of a profounder justification by saying that the working-class receives too small a portion of its own product and the evil would be remedied as soon as it receives a larger share of it and its wages increase in consequence, one could only remark that crises are always prepared by precisely a period in which wages rise generally and the working-class actually gets a larger share of that part of the annual product which is intended for consumption.”

From *Capital* volume II, ch. 20.

Model for examining realization problem

$$Y_t = c_t + v_t + s_t$$

$$E_{t+1} = c_{t+1} + v_{t+1} + LU_{t+1} \text{ where } E = \text{expenditure}$$

G_t is the realization gap for output of period t .

$$G_t = Y_t - E_{t+1} =$$

$$c_t + v_t + s_t - c_{t+1} - v_{t+1} - LU_{t+1} =$$

$$- \Delta c_{t+1} - \Delta v_{t+1} + s_t - LU_{t+1} =$$

$$- A_{t+1} + s_t - LU_{t+1} = 0 \text{ for full realization.}$$

Therefore,

$$s_t = A_{t+1} + LU_{t+1} \text{ is requirement for full realization.}$$

Wright's Underconsumption Model

$$SS = c + v + s$$

$DD = c + v + A + U$, where U = unproductive spending.

Full realization: $s = A + U$

Suppose s/v and r increase over time.

$$s/K = A/K + U/K$$

$$r = A/K + U/K$$

A/K increases means accelerating accumulation.

Unless U/K increases, a realization problem will arise.

Debate over Underconsumption Theory

$r = A/K + U/K$ with r increasing

Critics:

1. s/v does not always tend to rise.
2. U/K might rise indefinitely over time.
3. UC theory locates the cause of crisis in circulation (exchange), not production.
4. UC theory suggests capitalists have an interest in raising wages over time, which would avert crisis.
5. UC theory sees capitalist production as problem-free.

Over-Investment Crisis Tendency

Depends on existence of fixed capital.

Creation of too much fixed capital relative to total demand → underuse of fixed capital → rate of profit declines → crisis.

One explanation: Competition among capitalists → each firm tries to increase its market share → creation of too much fixed capital.

$r = (s/v)/(F/v + 1)$ where F = value of fixed capital.

F/v rises → r falls → crisis.

Over-Investment Crisis Tendency (con't)

Criticism: As long as all S is spend on accumulation and unproductive purposes, fixed capital will be fully used.

How can over-I happen:

1. Single-industries: Excessive expansion of fixed K in a few key industries → r decline in those industries → crisis of disproportionality.
2. An Asset bubble can cause an over-investment crisis.

Asset-bubble induced Over-Investment

s/v high, r high \rightarrow asset bubble (stocks, real estate) \rightarrow

1) Demand for consumer goods rises relative to household income financed by borrowing against the asset \rightarrow capitalists create growing amount of productive capacity to satisfy the growing consumer demand.

2) Asset bubble \rightarrow exaggerated expectations of future profitability \rightarrow excessive investment in fixed capital.

Result: Fixed capital increases above the level required by a sustainable level of total demand.

Asset-bubble induced Over-Investment (con't)

Eventually asset bubble bursts →

1) households cannot keep borrowing → consumer demand ↓ → firms find they have too much fixed capital → investment falls.

2) profit expectations reverse → investment demand falls.

Result: severe crisis follows due to sudden severe realization problem.

Accumulation remains depressed for a long time due to the large volume of excess productive capacity.

Accumulation as the Key Variable

Three cases:

1) Normal accumulation: $A = S - LU \rightarrow$ no realization problem.

2) Realization crisis occurs first: $A > 0$ but $A < S - LU$.

A realization crisis occurs despite positive accumulation.

3) Problem in creation of S occurs first:

$A < 0 \rightarrow$ output falls \rightarrow severe realization crisis follows.

Determinants of Accumulation

Accumulation is determined by incentives to accumulate and resources available for accumulation.

Incentives:

- 1) expected rate of profit
- 2) current credit conditions
- 3) expected future demand
- 4) current stocks of the final product
- 5) technological change

Resources:

- 1) surplus value created in previous period
- 2) current credit conditions

Accumulation Function

$$A_t = f(r_{t-1}, CR_t, X_t, ST_t, TC_t) \text{ where}$$

r = rate of profit

CR = credit market conditions

X = expectations of future demand and profit rate

ST = stocks of unsold goods

TC = technical change

Sequence for Crisis Tendency

Profit Squeeze: $(s/v)_t \downarrow \rightarrow r_t \downarrow \rightarrow A_{t+1} < 0 \rightarrow$ crisis

Underconsumption: $(s/v)_t \uparrow \rightarrow r_t \uparrow \rightarrow A_{t+1} \uparrow$

but if $A_{t+1} < S_t - LU_{t+1} \rightarrow G_{t-1} > 0 \rightarrow$ realization crisis.

Also, $ST_{t+2} \uparrow$ and $X_{t+2} \downarrow \rightarrow A_{t+2} \downarrow$

Sequence for Crisis Tendency

Bubble-Induced Over-Investment:

Allow workers' consumption N to be unequal to v .

$$Y_t = c_t + v_t + s_t$$

$$E_{t+1} = c_{t+1} + v_{t+1} + B_{t+1} + LU_{t+1}$$

where B_t is borrowing by workers for consumption.

Condition for full realization: $A_{t+1} = S_t - LU_{t+1} - B_{t+1}$

Bubble bursts:

- 1) B goes from positive to negative \rightarrow realization crisis
- 2) X goes from optimistic to pessimistic \rightarrow A falls.