Consumption Function

C = f (Y)   Y here denotes disposable income

f' (Y) > 0

Consumption function (relationship between Consumption and Disposable Income) is directly related to disposable income.

C is a stable function of disposable income.

- Micro vs macro consumption function
- Linear vs non-linear consumption function
- Short-term vs long-term consumption function
- Example of a linear consumption function
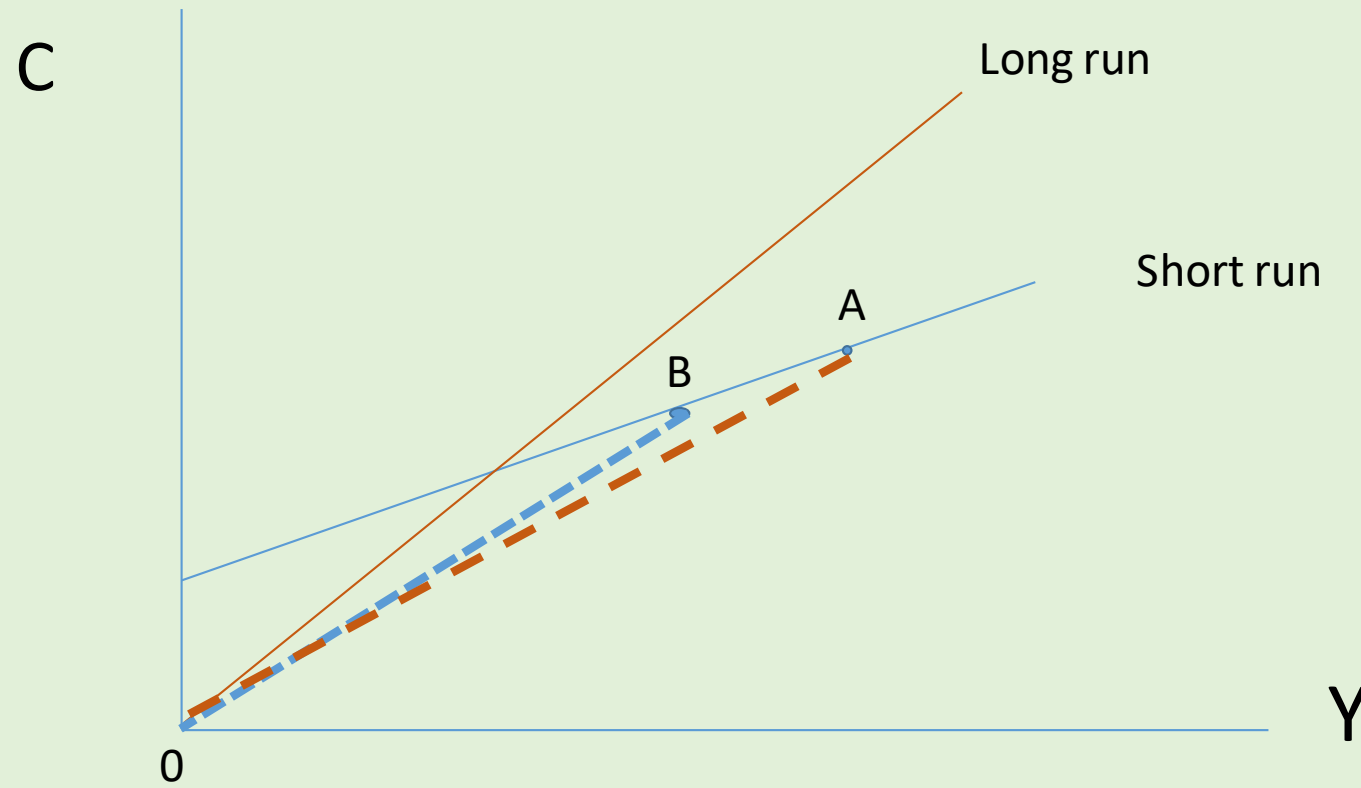- C = a + bY + e   (e is the error term is expected to average out to zero)

Consumption function (linear)

C

0

Y

Macro

Micro

B

A

The APC decreases as Y increases for a Consumption function with C intercept (MPC ≠APC
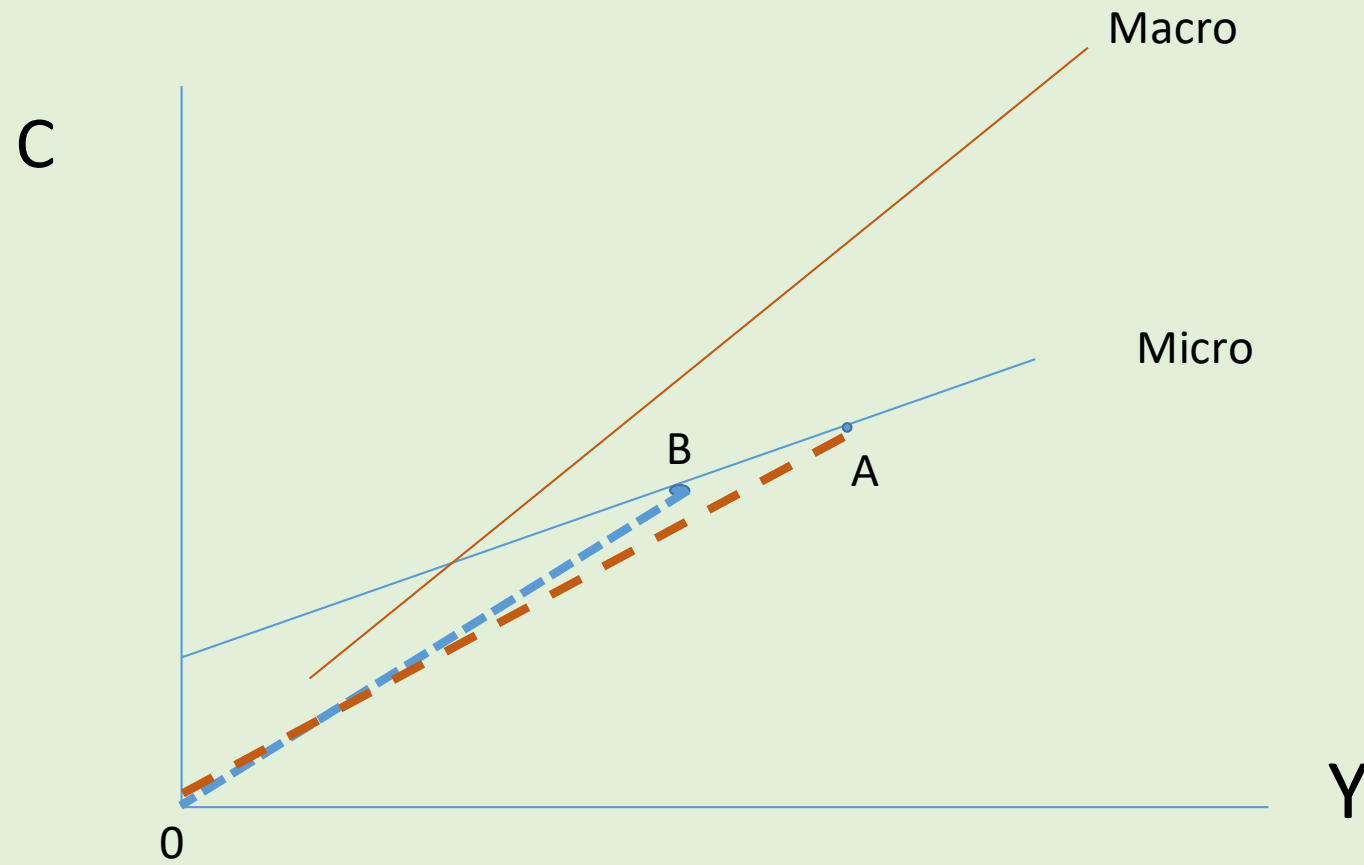
If C function is a ray, then MPC and APC are equal and constant

Consumption function (linear)

C

Long run

Short run

A

B

0

Y

The APC decreases as Y increases

Non-Linear
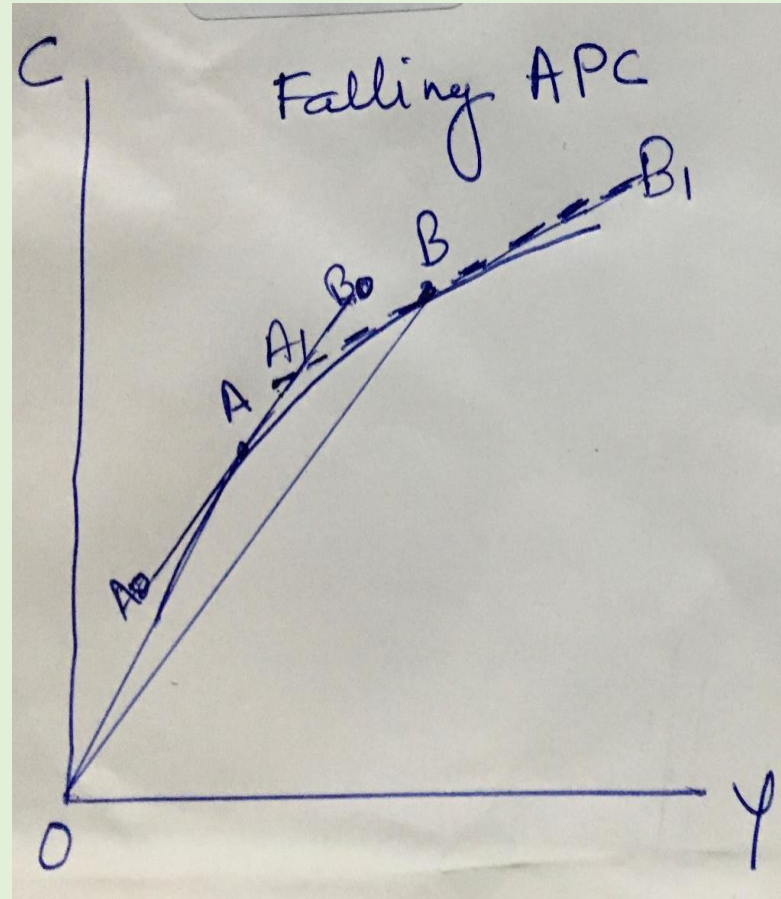
MPC and APC

- Given the Consumption function $C = a + bY$

-

- MPC = b: Marginal propensity to consume (dC/dY), measured by the slope/slope of the tangent to the consumption function

- APC = $(a/Y + b)$: average propensity to consume (C/Y), measured by the slope of the line joining origin with the given point on consumption function

APS and MPS

- Given the Consumption function C = a + bY
- Y= C + S
- S = Y – C = Y-[a + bY] = -a +Y-bY = -a + (1-b)Y

S = -a + sY   where s is MPS and = (1-MPC)

MPS = dS/dY = s Marginal propensity to save

APS = S/Y

Break-even point in consumption function

- Y = C, before break-even point, negative savings, after break-even point, positive savings.

-

Four Approaches to the Consumption Function

1) Absolute Income Hypotheses (Keynes?)

2) Relative Income Hypothesis (James Duesenberry

3) Permanent Income Hypothesis (Milton Friedman)

4) Life Cycle Hypothesis (Albert Ando & Franco Modigliani)

1) Absolute Income Hypothesis (Keynes?)

- According to Keynes, it is a "psychological law" that "households increase their consumption as their income increases, but not as much as their income increases". One consequence of this "law" is that the proportion of national income represented by saving increases during periods of economic growth.

- Keynes' theory of saving was generally accepted by his contemporaries.

- However, in 1942 Simon Kuznets showed that the theory did not agree with empirical facts: in the U.S., the long-term saving to income ratio had not increased over time.

2) Relative Income Hypothesis (James Duesenberry)

- The Duesenberry approach says that people are not just concerned about absolute levels of possession. They are in fact concerned about their possessions relative to others,
- "Neighbours' envy, Owners Pride." Onida TV advt.

- People are not necessarily happier if they have more money. They do, however, report higher happiness if they have more relative to others.

- Duesenberry argued that we have a greater tendency to resist spending decreases relative to falls in income than we do to increase expenditure relative to increases of income. The reason is that we don't want to alter our standard of living downard.

- When WWII ended, a significant number of economists claimed that there would be a decline in consumption and aggregate demand. This did not occur.

3) Permanent income H (PIH): Milton Friedman

- The lack of empirical evidence on absolute income hypothesis became the starting point of a number of studies during the years that followed, and several new approaches to the theory of saving were presented.

- In 1957, Milton Friedman formulated his "permanent income" hypothesis, that a rational explanation of the Keynes-Kuznets contradiction was given within the framework of a general, well-defined theory of consumer demand over time.

- The characteristic feature of Friedman's hypothesis is that a person's income is assumed to consist of two parts, one permanent and one transitory, and that it is the permanent part that is the determinant of decisions about consumption and saving.

- Permanent Income = Past Income + Expected Future Income

- Transitory Income : income that is earned in excess of, or perceived as an unexpected windfall.

- Y - YP = YT

- Y =YP + YT C = f (YP)

- Friedman's ideas were well received by most economists, and for several years the permanent income hypothesis played a dominating role among existing theories of aggregate saving.

- It also explains why there was no drop collapse in spending post W War.

4) The Life Cycle Hypothesis

- This is primarily attributed to Albert Ando, Franco Modigliani & Richard Brumberg (1954). The basic notion is that consumption spending will be smooth in the face of an erratic stream of income.

- The life-cycle hypothesis is a purely microeconomic theory. However, Modigliani has shown that the hypothesis has a number of macroeconomic applications.

- Working Phase:

1. Maintain current consumption, pay off debt from youth years

2. Maintain current consumption, build up reserves

Life Cycle Hypothesis: Graphical Depiction

Income, Consumption

Debt
Accumulation

Savings

Dissaving

Youth
Years

Working
Years

Retirement
Years

Time
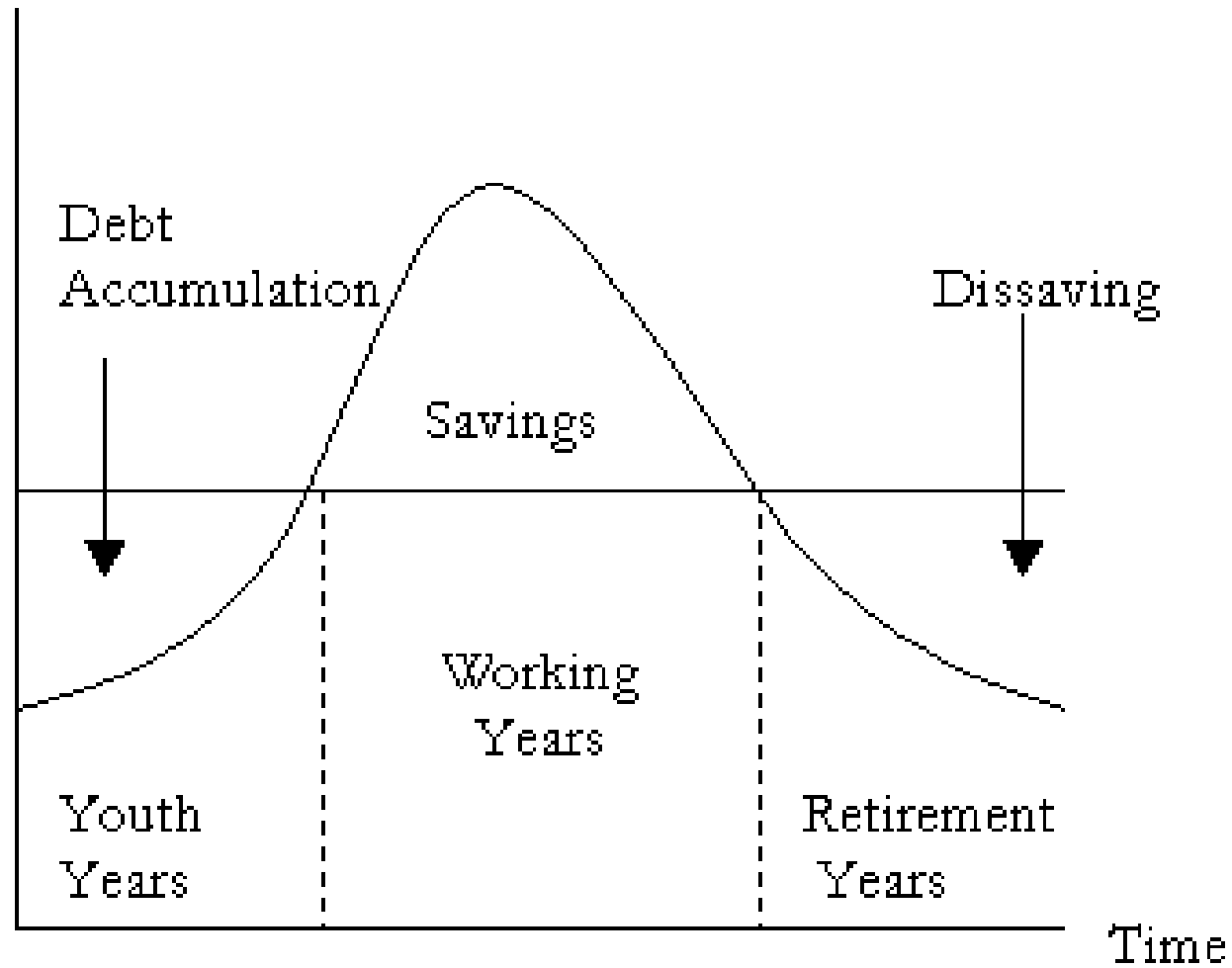
- Age distribution matters when we look at consumption, and in general, the propensity to consume.

- Debt and wealth are also taken into account when we look at the propensity to onsume.

- The dependence structure of the population will affect or influence consumption patterns.

- The permanent income hypothesis bears a resemblance to the life-cycle hypothesis in that in some sense, in both hypotheses, the individuals must behave as if they have some sense of the future.

- For Friedman, the consumption planning period is infinite, meaning that people save not only for themselves but also for their descendants. Aggregate consumption depends primarily upon the rate of growth of the economy.

- In the Modigliani-Brumberg version, the planning period is finite: people save only for themselves. Aggregate consumption is endogenously determined by economic as well as demographic factors, such as the age structure of the population and the life expectation.

Decline in Savings Ratio (Thrift)

1. Social Security System
2. Growth of capital markets
3. Slow growth of incomes and downward rigidity of consumption
4. Other factors, such as, high tax rates, changing age structure of population, etc.