Effective Demand and Say's Law in Marxist Theory

Tomás Rotta

University of Greenwich, London, UK

GPERC

marx21.com

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Purpose of this lecture

Explain how Say’s Law and Effective Demand feature in Marxist Theory

Plan of the lecture

Two parts:

1. History of Economic Ideas: Say’s Law versus Effective Demand
2. Say’s Law and Effective Demand in Marxist Theory

Slides and paper available at:

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References

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Part 1

Say’s Law and Effective Demand

A brief history of economic thought

in chronological order

J. B. Say

Traité d'Economie Politique

First edition (**1803**): Say's Law is only outlined

Incomes are prior to expenditures

Sales create purchasing power for expenditures

Purchases of goods are made using the income obtained from producing and selling other goods first

You can only buy if you have income, but to have income you need to **produce and sell first**

Greater sales increase incomes, which then increase demand (not the opposite)

To **increase demand** the economy only needs to **increase supply** first

Say confuses purchasing power (**ability to expend**) with **actual expenditures**

He supposes these are the same: all purchasing power is actually spent

And Say ignores time.

J. B. Say

Traité d'Economie Politique

First edition (**1803**): Say's Law is only outlined

When a nation has an excess supply of a certain kind of good (a **partial glut**), the solution to sell this excess supply is to produce more of another kind of good

"**Inability to sell** arises **not from overabundance** but from the **misallocation of the factors of production**"

"The demand of products in general is thus equal to the sum of the products" (AD=AS)

"A nation always has the means of buying all it produces"

No reason to fear secular stagnation

Every **excess supply** in one market is identical to an **excess demand** is another market

(But in which market? Only in the goods market? What about the money market?)

J. B. Say

Traité d'Economie Politique

First edition (**1803**): Say's Law is only outlined

Say is making two crucial assumptions:

1. People do **not hold cash** for the sake of liquidity
2. All incomes are **immediately** spent

Implication:

Supply automatically and immediately creates an equivalent demand

If not immediately, the adjustment process is at least fast enough such that **mismatches between AS and AD are rapidly self-corrected**

Hence the **AD function can be ignored**

William Spence

(1807) *Britain Independent of Commerce*

Expenditures create incomes

Demand is at the core of the income creation process

For incomes to increase, expenditures must increase first

More spending (not saving) makes incomes grow

Saving restricts demand so it is actually bad for growth

This is exactly what **Keynes and Kalecki** stated in the 1930s!

James Mill

develops Say's Law in his *Commerce Defended* (**1808**)

Criticises William Spence:

Saving adds to incomes; spending reduces income

More savings, more growth

Spending one's way to prosperity is complete nonsense

Denies the possibility of a general demand deficiency, of general overproduction

Partial gluts (partial overproduction) are possible, but not general gluts

Possibility of unlimited accumulation

Impossibility of general overproduction

Recessions are caused by misdirected production (**wrong goods produced**), not because of demand deficiency

J. B. Say

Traité d'Economie Politique

Second edition (**1814**): Say's Law is developed further

Recessions and high unemployment are **not** caused by lack of demand

There is a **self-correction mechanism that stabilizes the system**: partial overproduction in one sector will not become a general glut

The **AS=AD equilibrium** is **stable**: temporary disequilibria are self-corrected by the system

General crises are **not** generated **endogenously**, but only exogenously because of war, international trade, climate etc.

J. B. Say

Traité d'Economie Politique

Second edition (**1814**): Say's Law is developed further

Demand for money does not affect AD **=** money is a veil

Money (cash and substitutes for cash) is created endogenously

Any temporary **AD≠AS disequilibrium**, which necessarily implies a **Md≠Ms disequilibrium**, rapidly returns to equilibrium as money is created on demand

A partial excess supply of goods is cleared with money being created ex nihilo

Cycles are generate by **coordination failures**: misapplication of productive power, not because of excess productive power

David Ricardo

Principles of Political Economy (1815)

Letter from Ricardo to Malthus (1919-1821)

Provides a more complete development of Say's Law

Makes Say's Law the **core** of Classical Political Economy (and the Economics mainstream)

General overproduction (or lack of AD) is not possible

"Men err in their productions, there is no deficiency of demand"

Recessions derive from the **supply side**, not from demand

The problem is not that too much is produced, but that the **wrong things are produced**

Causes of recessions: **miscalculations**; **sector disproportionality**; **coordination failures; cumulative errors in the production process**

The level of AD does not matter

What matters is the **mismatch** between the **structure of AD** relative to the **structure of AS**

Say + Mill + Ricardo

(mostly after David Ricardo)

(1) **Supply creates its own demand**: aggregate overproduction (general glut) is impossible

(2) **Money is but a veil** and plays no independent role

(3) In the case of **partial overproduction**, which necessarily implies a balancing underproduction elsewhere, **equilibrium is restored by competition**, by the **price mechanism** and the **mobility of capital**

(4) Because aggregate demand and supply are necessarily equal, and because of the equilibrating mechanisms, **output can be increased indefinitely** and the accumulation of capital can proceed without limit

Thomas Malthus

(1819) *Principles of Political Economy*

AD function cannot be neglected as Ricardo and Say did

Lack of demand can cause a recession

General gluts are possible, and likely, because of **over-saving**

Goods are exchanged against **money**, not against other goods: **monetary economy**

The accumulation of capital is **not** limitless: **stagnation** is possible

The **fall in the profit rate** sets the limit to the accumulation of capital

For Malthus, the profit rate falls because of a **lack of effective demand**

(this is different from either Marx or Ricardo)

Malthus used a different value theory than Ricardo (different premises)

- Malthus: value as commanded labor (disequilibrium is built into his value theory)
- Ricardo: value as embodied labor

Sismondi

(1819) *Nouveaux Principes d'Économie Politique*

Denied the self-regulating feature of the classical model

The supply=demand equilibrium is not always stable

Potential lack of demand: inadequacy of mass purchasing power

Redistribution of purchasing power can prevent a crisis from hapenning

Time lag between production and consumption

Frictions and **time lags** might prevent the equalization of supply and demand for certain commodities

General glut happens because of **frictions and time lags**

John Stuart Mill

Essays on Some Unsettled Questions of Political Economy (1844):

- Say’s Law relies on the assumption of a **barter economy**
- Once **money as a store of value** enters the story, Say’s Law no longer holds true
- Possibility of **temporary oversupply** of commodities when money is in excess demand

Principles of Political Economy (1848):

- “All sellers are inevitably … buyers”
- Keynes quotes this passage in the General Theory
- Not possible for AD deficiency to cause a general glut

Marx

Even before publishing *Capital*, Marx had already criticized Say's Law in his 1861-1863 manuscripts (published posthumously as *Theories of Surplus Value*)

Argued strongly against Say's Law:

- Say's Law conceals the essential nature of the capitalist system
- Crises are generated **endogenously**
- Commodities are exchanged against money
- Money is an **independent form** that has an **independent existence**
- Money as an end in itself (store of value = means of hoarding)

Marx

Argued strongly against Say's Law:

- There is **<u>not</u>** always a self-correction mechanism that stabilizes the system: partial overproduction in one sector can lead to general overproduction
- Price adjustments and factor mobility **<u>cannot</u>** guarantee stability
- Price adjustments can even make the system **<u>more unstable</u>**
- If overproduction appears in a sector of some importance and it becomes necessary to sell commodities at prices which do not cover costs, the difficulty multiplies and the result is a general glut
- Drastic prices reductions can lead to a **breakdown in the chain of payments** and might collapse the credit system

Marx

Argued strongly against Say’s Law:

- Overproduction crises cannot be avoided: the **endogenous causes** of the crisis are built into the system
- Overproduction is how the crisis **<u>appears</u>** (it’s a symptom), but it is not its cause
- Say theorized capitalism as a barter economy and exchange only in terms of use-values (no abstract character of labor)

Marx

Marx criticized **underconsumptionist** theories à la Rodbertus: working class enjoys its greatest prosperity just before the outbreak of the crisis

Marx knew that **underconsumption** and **disproportinality** as crisis theories were part of Classical Political Economy before him.

But Marx himself thought that these were **symptons** of the crisis, not their cause.

Marx focused more on the dynamics of the **profit rate** as an explanation for **cycles and crises**.

Marx

In some chapters along the 3 volumes of *Capital*, **Marx assumed Say's Law**

This does **not** mean in any way that Marx endorsed Say's Law

Just an assumption to facilitate the exposition

Possibility that capitalism can generate **crises and cycles in spite of the operation of Say's Law**

Rosa Luxemburg

(1913) *The Accumulation of Capital*

Capitalism has a chronic problem of lack of demand

For capitalism to grow it depends on the **demand** generated in **non-capitalist economies**

Capitalism has an internal drive for colonization and imperialism

Rosa did **<u>not</u>** understand what effective demand is

She could **<u>not</u>** understand how **capitalism itself generates effective demand** for the system to grow, regardless of the existence of non-capitalist modes of production

And she also made the **logical mistake** of thinking that non-capitalist systems can perpetually purchase goods from capitalist system without ever selling them anything back

Kalecki

1933

Rejects Say's Law

Expenditures are prior to incomes

Expenditures create incomes: $C+I+G+X-M \rightarrow W+\Pi$

Capitalists do not control their level of income

Capitalists control their level of expenditures

Profit is a residual income

Cycles and crises can be explained by the **fluctuations in expenditures**, especially in investment demand

Keynes

1936

Say's Law = supply creates its own demand

= economy is always at full capacity and full employment

= recessions and unemployment are ruled out

Say and Ricardo neglected the AD function

Theory of effective demand:

1. Expenditures create incomes
2. The level of expenditure determines the level of income
3. Investment creates savings (contrary to Classical PE)
4. Fluctuations in demand causes fluctuations in incomes
5. The demand for money (liquidity) is inherent in a monetary economy ruled by uncertainty
6. Money is a financial asset and a store of value

Oskar Lange

1942

Very similar to Keynes' position

Say's Law = all output is sold

= recessions and unemployment are not possible

= money is a veil → barter economy

= money is not demanded for the sake of itself

= any monetary theory is precluded

= only relative prices are determined

= absolute price level is indeterminate

Joan Robinson

1947: *An Essay on Marxian Economics*

There's a duality in Marx's position on Say's Law:

"Marx evidently failed to realize how much the orthodox theory stands or falls with Say's Law and set himself the task of discovering a theory of crises which would apply to a world in which <u>**Say's Law was fulfilled**</u>, as well as the theory which arises when <u>**Say's Law is exploded**</u>. This **dualism implants confusion** in Marx's own argument, and, still more, in the arguments of his successors"

Becker and Baumol

1952

“Say’s Law” is something ambiguous

Say himself was ambiguous!

Applications of Say’s Law are also ambiguous

Most criticisms against Say are **not correct (**Keynes and Lange included!)

Classical PE did **not** rule out recessions, cycles, or unemployment

Say’s Law is intrinsically related to the nature of the money market

Walra’s Law

AD + Md = AS + Ms (just a definition, no theory)

Say’s Identity (stronger version)

AD ≡ AS (always true; it’s an identity, not just an equality)

No one ever wants to hold cash: all incomes are immeditely spent

All sales incomes are **immediately** spend on other goods

No changes ever in the demand for money

Demand for money does not affect AD, AS or Y

Recessions and cycles are logically impossible

This is the version of Say’s Law that **Keynes and Lange** criticised

Say’s Equality (weaker version)

AD = AS is a stable (self-correcting) equilibrium

AD and AS might <u>not</u> be equal in the short run: brief disequilibrium is possible

Recessions and cycles are possible, but brief

Say's Identity

Supposition:

At any given set of prices people will **supply** commodities **when and only when** they use the money received to **demand** other commodities **<u>immediately</u>**

At any set of prices the **total money demand** for commodities will be equal to the **total money value of the quantity supplied** of all commodities (AS=AD)

This holds for **any price vector:** price level is irrelevant; relative prices matter

Lausanne School:

Money has no utility of its own, so cash is immediately used to buy stuff

Actually a **barter economy** = money is just a unit of account

Quantity of money cannot affect demand or supply (not even momentarily)

Say’s Identity

Implication: **Quantity of money demanded** (as stock or flow) is independent of the price structure and is always equal to the **quantity of money supplied**

Say’s Identity determines **relative prices** only: **absolute prices are indeterminate**

The **money market cannot determine the absolute price level,** because the money market is **always in equilibrium** regardless of prices

The fact that the money market is always in equilibrium, irrespective of prices, **cannot** be used to **determine** the price level

Say's Identity does <u>**not**</u> require that money have no utility, i.e. that **demand** (rather than **excess demand**) for money be zero.

Say’s Identity

The **Classical Dichotomy and the QTM** (real versus monetary side) contradict Say’s Identity because they don’t work for every price vector, only for the equilibrium one

Classical Dichotomy: the real economy determines relative prices and the QTM determines the absolute price level

With the QTM: the system is logically inconsistent

Without the QTM: the system is incomplete (absolute prices are indeterminate)

Say’s Identity

Don Patinkin’s solution:

drop Say’s Identity (so AD=AS is not always true)
drop the assumption that money demand is independent of the price structure
drop the Classical Dichotomy
there is no ‘real versus monetary’ side
demand for goods must depend on both relative and absolute prices
money demand does not necessarily match money supply
absolute price level does matter

Say’s Equality

Supply creates its own demand

Absolute price level matters (Pigou effect on purchasing power)

Price adjustments make the **equilibrium stable (self-correcting)**

Cambridge equation: for every relative price structure there exists a unique absolute price level at which the money market will be in equilibrium; total quantity of money offered for commodities is equal to the total value of commodities supplied

Unlike Say’s Identity, **Say’s Equality** is logically compatible with determinacy of an absolute price level

Say’s Equality

Classical Dichotomy only works if:

(a) The equilibrium is unique

(b) The focus in on relative prices in equilibrium only

Say himself understood the **money supply** to be **endogenous**:

(a) money is never scarce

(b) quantity of money responds to money demand

(c) medium of exchange is created on demand (cash and substitutes of cash)

(d) money demand responds to the price level

Baumol

1977

Say's Law

Actually **Say's Equality** (not Say's Identity)

AS and AD are always equated by a rapid and powerful equilibration mechanism

AS=AD is a stable equilibrium

Recessions and out-of-equilibrium states can happen but only briefly

Keynes

Did not understand the difference between **Say's Identity** (the focus of his criticisms) and **Say's Equality** (which is actually what Say's Law is)

Say and James Mill

Focus was on **long-run growth**

Focus was not on short-run overproduction or unemployment

Main argument: **investment rather than consumption** is the effective way to promote economic growth in the long run

Baumol

1977

Today we tend to think that:

1. **Malthus** was a Keynesian and thus a progressive
2. **Say-Mill-Ricardo** as the opposite of that

But in the early 19th century:

1. Malthus defended the unproductive landed aristocracy
2. Say-Mill-Ricardo defended the rising captialist and industrious class

Summary

Say’s Law has 2 versions:

Say’s Identity: **AD ≡ AS** because all incomes are immeditely spent

Say’s Equality: **AD = AS** is a stable (self-correcting) equilibrium

Say’s Law is actually **Say’s Equality**, not Say’s Identity

Keynes and Lange were criticizing Say’s Identity, not Say’s Equality

Say explained how **money is created endogenously** on demand (money is never scarce)

The focus of his work was on how **investment** was much more important than **consumption** in terms of long-run growth and in raising living standards

The QTM is incompatible with Say’s Identity but compatible with Say’s Equality

Summary

David Ricardo made Say’s Equality the **core** of Classical Political Economy, which later became the core of mainstream Economics

Applications of Say’s Law are ambiguous because writers do not differentiate between Say’s Identity and Say’s Equality

Say’s Law is intrinsically related to the concept of money and to the workings of the money market

Part 2

Say’s Law and Effective Demand in Marxist Theory

Warning

The paper that I'm about to present employs the term "**Say's Law**" as a synonym for "**Say's Identity**", which is a stronger version of Say's Law compared to "Say's Equality".

This is the assumption Marx made in Volumes II and III when he discussed his schemes of reproduction and the equalization of profit rates across sectors.

"Say's Law Marxism":

Despite Marx's strong criticisms against Say's Identity, it became common in Marxist modelling to suppose that **all values produced are fully realized** in the market. Marx made this assumption many times over along the three volumes of *Capital*.

In the presentation that follows I explain what are the logical consequences of employing either **Say's Identity** or the theory of **Effective Demand** in terms of exploitation, profitability, and accumulation.

Objective

Theorize the roles of **effective demand** and **Say’s law** in the Marxist theory of exploitation and accumulation

Point of departure

Marx relied on the principle of **effective demand**:
“realization crisis”
“commodity’s mortal jump” (salto mortale of the commodity)

Marx also relied on **Say’s law**

Marx had a **logical inconsistency** in *Capital III*, chapter 9

Results

Exploitation and Accumulation under **Say’s law**:

1. No profit rate equalization across sectors
2. Distribution of income between profits and wages is pre-determined
3. No prices of production as gravitational centers for market prices

Exploitation and Accumulation under **Keynes’ effective demand**:

1. Profit rates equalize across sectors
2. Distribution of income is endogenous = rate of exploitation is endogenous
3. Prices of production as gravitational centers for market prices

Marx in *Capital III*, Chapter 9

Chapter 9: Formation of a General Rate of Profit (Average Rate of Profit), and Transformation of Commodity Values into Prices of Production

different OCCs

rate of exploitation is <u>exogenous</u> and constant over time

profit rates not yet equalized

Capitals	Rate of surplus-value	Surplus-value	Value of product	Rate of profit
I. $80_c + 20_v$	100%	20	120	20%
II. $70_c + 30_v$	100%	30	130	30%
III. $60_c + 40_v$	100%	40	140	40%
IV. $85_c + 15_v$	100%	15	115	15%
V. $95_c + 5_v$	100%	5	105	5%

Capitals	Rate of surplus-value	Surplus-value	Rate of profit	Used up c	Value of commodities	Cost price	
I. $80_c + 20_v$	100%	20	20%	50	90	70	
II. $70_c + 30_v$	100%	30	30%	51	111	81	
III. $60_c + 40_v$	100%	40	40%	51	131	91	
IV. $85_c + 15_v$	100%	15	15%	40	70	55	
V. $95_c + 5_v$	100%	5	5%	10	20	15	
$390_c + 110_v$	—	110	110%	—	—	—	Total
$78_c + 22_v$	—	22	22%	—	—	—	Average

Capitals	Surplus-value	Value of commodities	Cost-price of commodities	Price of commodities	Rate of profit	Divergence of price from value
I. $80_c + 20_v$	20	90	70	92	22%	+ 2
II. $70_c + 30_v$	30	111	81	103	22%	− 8
III. $60_c + 40_v$	40	131	91	113	22%	− 18
IV. $85_c + 15_v$	15	70	55	77	22%	+ 7
V. $95_c + 5_v$	5	20	15	37	22%	+ 17

profit rates equalized

Marx's procedure in *Capital III*

1. Sectors have different OCCs
2. Rate of exploitation is **<u>exogenous</u>** and constant over time
3. Because of competition, profit rates equalize across sectors
4. Prices of production function as gravitational centers for market prices over the long run

Marx’s logical inconsistency in *Capital III*

1. Rate of exploitation is **exogenous** and profit rates **equalize**
2. But profit rates will not equalize if the rate of exploitation is exogenous
3. Marx’s procedure in *Capital III* actually supposes **Say’s law**
4. When the rate of exploitation is exogenous, **all values produced must be fully realized:**

exogenous

$$\boldsymbol{e} = \frac{\boldsymbol{S}}{\boldsymbol{V}}$$

for ‘e’ to be exogenous, S must be fully realized

purchase of labor power at the beginning of the production circuit

How can we **solve** this logical inconsistency in the Marxist theory of exploitation and accumulation?

Here is my solution:

Drop **Say's law**

Use **Keynes' principle of effective demand**

My solution to Marx’s logical inconsistency

1. Rate of exploitation **cannot** be exogenous
2. An exogenous rate of exploitation implies **Say’s law**: all values produced must be realized
3. Say’s law prevents profit rates from equalizing
4. The solution is to introduce **Keynes’ principle of effective demand**
5. Then the rate of exploitation must be **endogenous to effective demand**
6. **Realization problems** can occur (no Say’s law)
7. Profit rates will equalize across sectors
8. Prices of production will operate as gravitational centers for market prices

My solution to Marx's logical inconsistency

1. Two sectors: **D1** producing means of production, **D2** producing consumption goods
2. Intra- and inter-sector competition for higher profits
3. **Technological progress:** innovation is exogenous but adoption is endogenous, evolutionary, and based on expected profitability
4. Profit rate differentials shift investments across sectors until profit rates are equalized
5. **Replicator dynamics:**
   - Behaviors with higher payoffs proliferate
   - Models the process of equilibration by tracking the results of individual interactions
   - Formalizes feedback effects

My solution to Marx's logical inconsistency

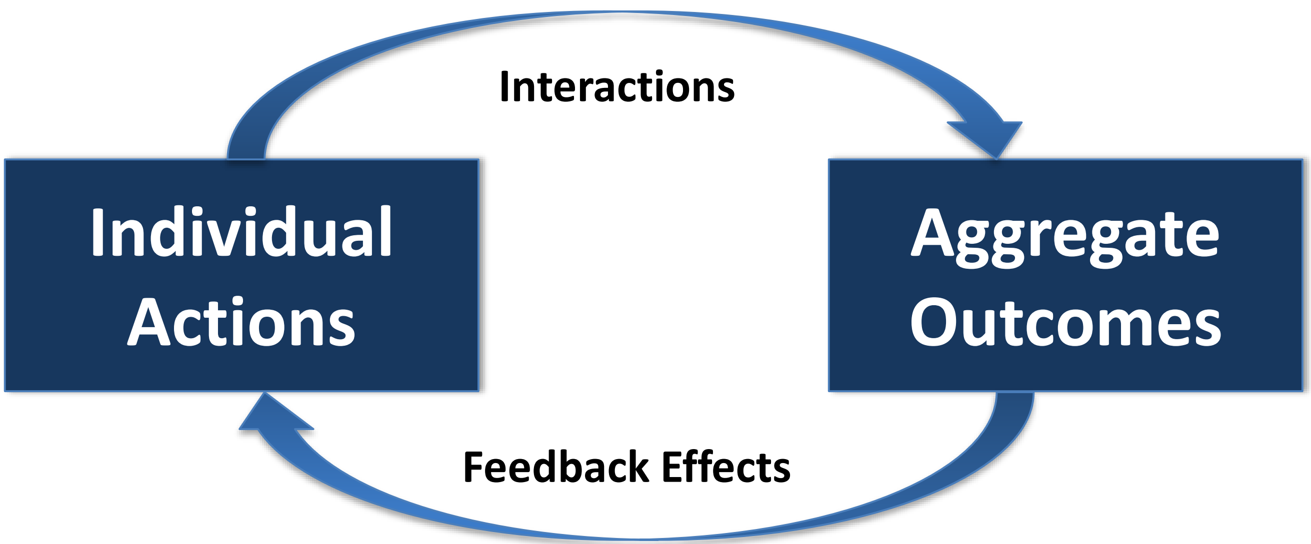
1. Profit rate equalization ≠ equal profit rates across sectors
2. Profit rate **equalization** = equal profit rates across sectors **+** this equality must be evolutionarily stable
3. **Evolutionary stability** requires asymptotical stability
4. Evolutionary adoption of new techniques + evolutionary equalization of profit rates
5. Price of production is a **gravitational center** because it is an **evolutionary stable equilibrium**

My solution to Marx's logical inconsistency

Adaptive agents in an evolutionary economy:

Agents do not know the aggregate consequences of their individual actions

Unintended aggregate outcomes constantly feed back into individual actions



Simulations

1. Exploitation and accumulation under **Say's law**

   Rate of exploitation is exogenous

   Functional distribution of income between profits and wages is exogenous

   All values produced must be realized

   Profit rates might be equal across sectors, by chance

   Profit rates will not equalize: equal profit rates have no evolutionary stability

   No prices of production

2. Exploitation and accumulation under **Keynes' effective demand**

   Rate of exploitation is endogenous to effective demand

   Functional distribution of income between profits and wages is endogenous

   Values produced may not be fully realized

   Profit rates will equalize: equal profit rates have evolutionary stability

   Price of production is evolutionary stable equilibrium (gravitational center)

Figure 1: Simulation of the Evolutionary Model with Say's Law
and an Exogenous Rate of Exploitation

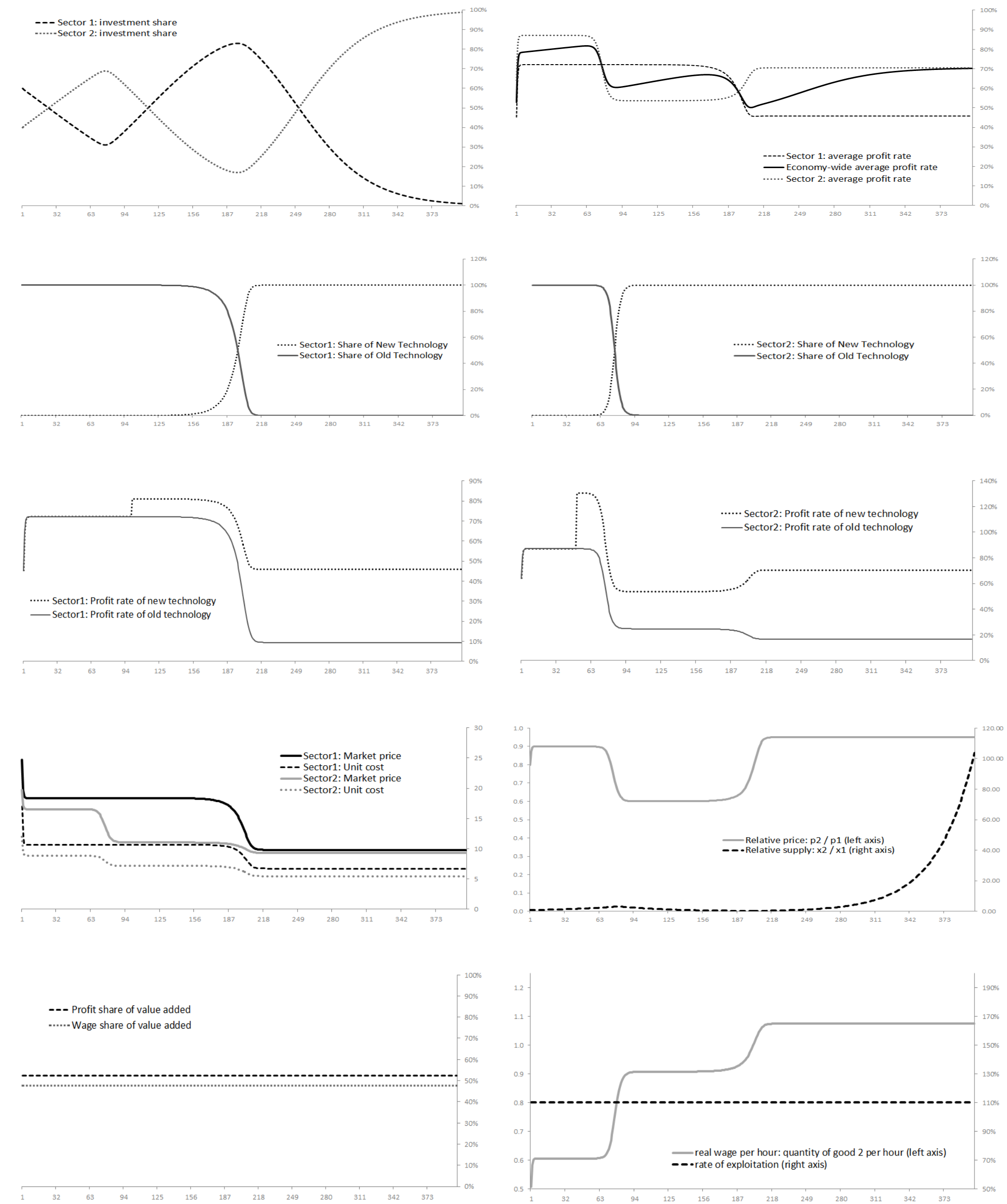


Figure 2: Simulation of the Evolutionary Model with Effective Demand
and Endogenous Rates of Exploitation