CONCENTRATION, DISTRIBUTION AND GROWTH

In a previous discussion, we have demonstrated that in the 1980s and 90s there was an increase in concentration, both in business and of income, in the US. In the 90s, especially in the second half, there was also a spurt in the growth of the economy. If we take a longer view, we find that in the post World War II period till the late 1960s, the rate of growth in the US was consistent and high which also coincided with a rising share of wages\(^1\). The growth rate started declining in the early 1970s and remained quite low till the early 90s. Meanwhile, the share of wages (of blue-collar workers) was also declining. This raises the question whether the distribution of income plays a role in the growth of the economy. Should the spurt in growth since the mid-90s in the US economy be seen as a result of or in spite of increasing inequality and concentration of capital? The purpose of this chapter is to examine various theoretical formulations which have studied the relationship between distribution and growth.

The question of growth and distribution has been a matter of central debate in Economics. As Bhaduri and Marglin (1990) note, a pointer to how old this debate is is the following resolution by Leicester framework-knitters passed way back in 1817, fifty years before Marx’s first volume of *Capital* was published (in 1867).

> That in proportion as the Reduction of Wages makes the great Body of People poor and wretched, in the same proportion must the consumption of our manufacturers be lessened.

> That if liberal wages were given to the Mechanics in general throughout the country, the Home Consumption of our Manufacturers would be immediately more than doubled and consequently every hand would soon find employment.

> That to reduce the Wage of the Mechanic of the country so low that he cannot live by his labour, in order to undersell Foreign Manufacturers in a Foreign Market, is to gain one customer abroad and lose two at home... [Emphasis

\(^1\) We have already shown in fig. 1.3 that the profit share was declining during the Golden Age years. The wage share is nothing else but the residual share of output after subtracting profit share.
From the existing literature on the relationship between distribution and growth, we can classify the different views in two broad categories. The first view is one which assumes that the economy functions at full employment, therefore, all savings are automatically invested. There is no role for an independent investment function according to this point of view. On the other hand, there is a view which recognises the role of an independent investment function and hence the aggregate demand problems arise. Within the latter view, there are two different strands—the stagnationist view and the exhilarationist view.

In the first view, we club together a variety of theories, not necessarily belonging to any particular school of economics, which argue for a positive relationship between inequality and growth. The common thread that runs through them is that they all attempt to address the supply side problem without explicitly taking the demand problems into consideration. They have primarily been premised on the assumption that income inequalities reflect the distribution of talent across the population and that individuals put in the effort to the best of their abilities if there is an incentive structure that promotes it (Mirrlees (1971). In the absence of such an incentive structure, X-inefficiency or allocative inefficiency would be generated. Others have argued that every technology needs a minimum scale to operate because of the presence of indivisibilities in real capital (Galor and Zeira (1993); Loury (1981)). In the presence of capital market imperfections, where external funds are available only at a high premium, inequality would generate conditions for at least some to cross the threshold of the minimum scale for employing the technology. Therefore, the relation between inequality and growth is a positive one.

The stagnationist view, on the other hand, argues to the contrary. The stagnationist view holds that the economy does not run at full capacity (or even the desired capacity utilisation), even in the long run, so, the economy is driven by demand related factors. In that case, any increase in the share of profits out of total income would ipso facto lead to a decline in overall consumption in the economy since the propensity to consume out of wages is higher than out of profits. This would affect the investment in the economy since a lower degree of capacity utilisation would dissuade the capitalists from investing further into building capacity. The economy would witness a decline in growth as a result.

2 This view has generally come to be known as the underconsumptionist view but we have deliberately not used this terminology because the stagnationist view has a richer mix not only of underconsumptionism but of underinvestment, especially with the contribution of Steindl (1952). This aspect will be dealt with in detail in the subsection on Steindl.
This argument can be traced back to the work of Hobson (1902) and Luxembourg (1913). In fact, Hobson located his theory of Imperialism in the growing tendency towards underconsumption in the home market due to adverse income distribution. The advanced industrial nations generated excess surplus value in the process and, therefore, had to look for profitable avenues which they found in the colonies. Hobson (1902) (p:74) writes,

Every improvement of methods of production, every concentration of ownership and control, seems to accentuate the tendency [towards overproduction]. As one nation after another enters the machine economy and adopts advanced industrial methods, it becomes more difficult for its manufacturers, merchants, and financiers to dispose profitably of their economic resources, and they are tempted more and more to use their governments in order to secure for their particular use some distant undeveloped country by annexation and protection.

... It is admitted by all businessmen that the growth of the powers of production in their country exceeds the growth in consumption, that more goods can be produced than can be sold at a profit, and that more capital exists than can find remunerative investment.

It is this economic condition of affairs, that forms the taproot of Imperialism. [Emphasis added]

Within the tradition of modern Macroeconomics, the underconsumptionist view can be found in Kalecki (1971), Steindl (1952), Baran (1957), Sweezy (1991) and Baran and Sweezy (1966). In particular, Steindl's work in this area is seminal, based on which a number of recent formalisations of his model have been attempted3 (Dutt (1984); Dutt (1990); Rowthorn (1982); Taylor (1991); Taylor (1985)).

The third view, which has been termed as exhilarationist, is actually a combination of two different strands4, the neo-Ricardians (Garegnani (1972); Ciccone (1986); Vianello (1989); Kurz (1994)) and neo-Marxians (Bhaduri and Marglin (1990); Marglin (1984b); Marglin (1984a); Blecker (1989)), who have questioned the stagnationist view. According to them, in the long run, the tendency of underconsumption would not exist and if it does, it would be over weighed by the tendency to invest as a result of an increase in the profit margin, in the wake of an increase in the degree of monopoly. In this sense, they tend to resurrect

3 For a historical review of this approach, please see Bleany (1976).
4 The common grounds for their criticisms of the stagnationist view have been reviewed in Lavoie (1995) extensively.
the old Marxian and Classical arguments that there is an inverse relationship between the rate of profit and wages. They question the stagnationist view, that an increase in the real wages could also help increase the profit rates due to an increase in the capacity utilisation. Paradoxically, the end result of this view is similar to the first view that a growth in inequality would lead to a higher growth, though the respective mechanisms are different.

We would present the essence of these three views in the sections that follow. Section 2.1 presents the first view which argues for a positive relationship between inequality and growth. In section 2.2, we deal with the opposite view in a Kaleckian model of growth where inequality affects growth adversely. Section 2.3 deals with the literature within the neo-Ricardian and neo-Marxian tradition, according to which an increase in real wages affects the growth prospects adversely. Section 2.4 presents a critique of all the three views. The last section concludes this chapter.

### 2.1 CONCENTRATION ENHANCES GROWTH

This section presents a theoretical overview of the arguments of the current dominant strand according to which concentration of income has a positive effect on growth. Within this dominant strand, one can distinguish between two sub-categories. The first approach has been to study the effects of concentration in business (which has also been called ‘corporate restructuring’) on the growth of the firms through the efficiency argument. The second approach has been the study of the impact of inequality in income and wealth on the growth of the economy. We present below an overview of both these approaches.

#### 2.1.1 Corporate Restructuring and Growth

According to this approach, the market for corporate control disciplines the inefficient firms and transfers the resources to more efficient firms through takeovers. Efficiency has been defined in this approach in terms of both the increase (decrease) in the vector of potential outputs (inputs) for the same vector of inputs (outputs) as well as increase in the stock market value of the firms5. According to this approach, these two phenomena are interlinked to each other. They believe

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5 This definition of efficiency, as used by the financial economists is highly problematic. Using the concept of efficiency to mean an increase in potential output and also an increase in the stock market valuation interchangeably is mixing up two different notions of efficiency. We would present a critique of this approach later.
that the stock market valuation is a true reflection of the performance of the firms in real terms as well. Financial economists have been the most vocal proponents of the positive effects of the corporate restructuring that took place in the US in the 1980s and 90s (Jensen (1986); Fama and Jensen (1983); Jensen (1988); Jensen and Ruback (1983); Jensen (1993); Jensen and Meckling (1976)).

The essence of their argument is the following. Owing to technological improvements in the post-1973 phase, there has been an increase in the potential supply of goods which has not been matched by demand resulting in generation of massive excess capacity. In such an event of pervasive excess capacity, the firms ought to have cut down on investment since it leads to further capacity addition. A divergence of objectives of the managers and shareholders in these firms, however, does not let this happen. While the shareholders are interested in higher dividends and stock market valuation, the managers are interested in higher growth of the firms because their remunerations are linked to the size of the firm and not to the stock market performance of the firms. This divergence of interest between them leads to a situation where the retained profits are reinvested in projects with negative present values breeding inefficiency into the system. In such a situation, the external corporate mechanisms, like the takeover market, play a central role in ‘disciplining’ the erring managers. Those firms, which are not pursuing the goal of high stock market valuation, which are also synonymously the inefficient firms in this framework, are taken over by those who have high stock market valuation. Therefore, the takeover market, or the market for corporate control acts in the interests of the economy as a whole by reallocating resources from its most inefficient use to its most efficient use. We would have to go a little into the details of their argument, even at the cost of digression, to set the stage for showing the final effects of such restructuring on growth of the economy.

The argument is that the economic and political situation in the post-1973 phase was drastically different from the period preceding it, especially 1950s and 60s. Marked by significant technological developments in the US, this period is characterised as the Third or the Modern Industrial Revolution (Jensen (1993)). These advanced technological developments, in the form of a microprocessor, computer and ICT, resulted in a dramatic decline in average costs and increase in labour productivity, comparable to the changes that took place at the turn of the nineteenth century during the Second Industrial Revolution.

They argue that such dramatic technological developments led to an increase in the potential supply of commodities which was not matched by a similar increase in demand. Moreover, the managers of the corporations, who controlled the
entire corporate capital, emphasised investment in capacity building because the incentive structure for managers favoured size and growth of the corporations. This often led them to invest in projects which did not have a positive net present value (NPV) resulting in a wastage of resources. As a result of both the remarkable technological advance and the erring managers massive excess capacity started building since the mid 1970s.

Instead of downsizing the corporations in the wake of pervasive excess capacity, managers were reinvesting the retained profits. Managers behaved in this manner because the internal corporate mechanisms were not structured to 'discipline' them. They were not working in the interests of the shareholders because of what they term as Agency Costs (Jensen and Meckling (1976); Fama and Jensen (1983)). According to the Agency theory, shareholders are the principals and managers are their agents. Though the agents are expected to act in the interests of the principals, they might not do so in reality. This was especially the case because the incentive structures in the internal corporate mechanisms favoured growth and size over 'creating' shareholder value. And due to the scattered nature of shareholders, they hardly ever had the strength to take action against such behaviour. The managers, because of this incentive structure, were driven by what is called the principle of 'retain and reinvest' (Lazonick and O'Sullivan (2000)) which might not have any positive effect on the (stock market) value of the firm.

A divergence of interests between the principals and the agents led to the creation and wastage of 'free cash flow', which was defined as the amount of cash that remained at the disposal of managers after spending on projects with positive NPVs (Jensen (1986)). Therefore, there was a need to create a mechanism which could discipline the agents to act in line with the interests of the principals. This was ensured by the market for corporate control, where the non-performing managers (whose performance was judged by the low return in the stock markets) would be removed forcefully through a takeover by managers who could manage the resources which would produce higher stock market value. The mantra of this market for corporate control was to maximise the shareholder value and punish those managers who swayed from this basic goal. An active market of takeover could do precisely that through an acquisition of the non-performing firms which had lower rate of returns on their stocks by firms which were performing well on this count.

In this quest, within the financial environment in the US, for increasing the strength of the 'owners' of capital (shareholders) relative to those who 'control' it (managers), a new mechanism was added, the institutional investors. The
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shareholders could not exercise major control over their own capital because they were scattered, so the institutional investors in the form of mutual and pension funds as well as life insurance companies provided them with a weapon of hard bargain. As (Lazonick and O'Sullivan, 2000, p.16) write,

[these institutional investors] made possible the takeovers advocated by agency theorists and gave shareholders much more collective power to influence the yields and market values of the corporate stocks they held.’ [emphasis added]

Financial deregulation, that heralded a new financial environment since the mid-70s, removed the legal restrictions on the pension and life insurance companies that had existed during the 50s and 60s. Legal restrictions ensured that these companies could not invest more than a certain percentage of their money in corporate stocks, which were intrinsically ‘risky’.

It was argued by the financial economists that the overall effect of this powerful ‘market for corporate control’ was beneficial in a number of ways for the economy as whole, apart from being beneficial for the shareholders. Lazonick and O’Sullivan (2000) summarise their arguments quite succinctly.

First, the corporate restructuring led to an increase in efficiency in the system, reflected in terms of better allocation of real resources and higher stock market valuations of those firms who were engaged in restructuring. That efficiency defined in these two senses are linked to each other, according to these authors, can be understood from what Jensen (Jensen, 1993, pp.837–8) has to say,

On average, selling-firm shareholders in all M&A transactions in the period 1976 to 1990 were paid premiums over market value of 41 percent,9 and total M&A transactions generated $750 billion in gains to target firms' shareholders (measured in 1992 dollars). This value change...includes synergy gains from combining the assets of two or more organizations and the gains from replacing inefficient governance systems, as well as possible wealth transfers from employees, communities, and bondholders... [H]owever, little evidence has been found to support substantial wealth transfers from any group, and it appears that most of these gains represent increases in efficiency.

As argued above that, in the absence of an active market of takeovers, the managers were wasting the resources by investing in negative NPVs whereas what was required was downsizing. Takeover of such firms led to a major overhaul often through forced exits, plant closings or reworking of contracts with
the employees. Such steps increased the return on the stocks of these firms as profits increased. What we witness is that, on an average, the return on the stocks of the targets of takeovers increased. Such increase in efficiency, they argue, could happen across the board, especially since with the advent of Leveraged Buyouts (LBOs) size was no barrier anymore in buying the corporations. Largest of the non-performing corporations could be bought over by venture capitalists, financing the buy through debts. These debts themselves put pressure on the bought over companies to re prioritize their investment plans because debts are far costlier, and thereby more disciplinarian, than equities.

Second, in the attempt to increase market valuations, firms have been forced to ‘disgorge free cash flow’ in the form of higher dividends to the owners. Since the shareholders have access to the best yielding assets in the market at any given point, they can use the money received in the most efficient alternative use. This route again helps in allocating resources from the inefficient to the most efficient sectors. There is, thus, a continuous movement of free cash flow to its most efficient users in this manner.

Third, the release of both labour and capital from conventional manufacturing sector to the dynamic and technologically most advanced sectors like the IT has not only revived US’ competitiveness in the international market but has also given a big push to the growth of productivity which was absent earlier. Thus these markets have removed the stranglehold over the movement of resources in favour of start-up ventures which are dynamic and which led the boom of the 90s in the US.

Fourth, the role of the market for corporate control comes out even more clearly if one compares the economic performance of the US with the other advanced countries in Europe or Japan who did not follow this model till as late as the 90s. While the US economy saw the longest economic and stock market booms in the 90s since the golden age, other countries have barely witnessed such a prolonged period of economic prosperity.

Another important work, that establishes a positive link between corporate restructuring of the 1980s and 90s and the growth in the US economy, is by two

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6 Jensen (Jensen, 1993, p.832) compares the market for take overs with the capital market of the late nineteenth century in the following words,

The capital markets played a major role in eliminating excess capacity both in the nineteenth century and in the 1980s. The merger boom of the 1890s brought about a massive consolidation of independent firms and the closure of marginal facilities. In the 1980s the capital markets helped eliminate excess capacity through leveraged acquisitions, stock buybacks, hostile takeovers, leveraged buyouts, and divisional sales.
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economists who had themselves served on the Council of Economic Advisers (CEA) in the 1990s (Blinder and Yellen (2001)). The title of their book gave the 1990s a name by which it was to be addressed later—the fabulous decade. They too, like the financial economists, argued that corporate restructuring played an important role in making 1990s a fabulous decade. In fact, they lay greater significance on its role than even the 1990 budget agreement. But, unlike the financial economists, they are doubtful whether the route through which restructuring affected growth was the increase in productivity. They write, ‘the productivity enhancing effects of what was called “downsizing” were frequently exaggerated and may not have even existed’ (p.88). This leads us to examine the linkages between restructuring and growth in their argument.

First, corporate restructuring reduced the slack in the American businesses much ahead of their competitors either in Europe or in Japan. The relative advantage of becoming ‘leaner and meaner’ much ahead of the competitors revived the competitiveness of the American businesses. While the entire capitalist world was witnessing a lull in demand, especially in the late 70s and 1980s as opposed to the Golden Age, the requirement was a quick adjustment to the new situation. Other countries could not carry out such an adjustment process at the same feverish pace as the US. This gave the US business an advantage that they had been looking for, especially after losing markets to their more innovative counterparts from abroad. This early and deeper restructuring, coupled with a lagged effect of a cheaper dollar, during 1992–3, led to rewards for the US business which they were waiting for. Since the excess capacity had been adjusted, American corporations were best placed to channelize any opportunity of growth to their advantage.

7 Alan Blinder served on the CEA in the first Clinton administration and then as the vice chairman of the Federal Reserve whereas Janet Yellen served as the chairperson of the CEA at the end of the second Clinton administration. In that sense, it was an insiders’ account of what happened during the fabulous decade.
8 The budget agreement of 1990 was a step towards reversing burgeoning fiscal deficits that the US had been running for years on end. The attempt was to increase the tax rates and decrease the government expenditure simultaneously to reach a much coveted objective of a budget surplus.
9 It would be interesting to note why US was the first and the furthest to go for restructuring. They argue that ‘the United States has always practiced a more hard-edged brand of capitalism than either Europe or Japan’ (p.6). This resulted in little or no resistance to layoffs that were a fallout of such restructuring and even the government did not meddle with this process. The other advanced countries have been quite late to reach there. There was another reason for why US took greater advantage of restructuring than the others. Dollar, by virtue of being the world currency was grotesquely overvalued in the 80s, which acted as a blessing in disguise for the US business. This made the US corporations very uncompetitive in the world market, a phenomenon which took them to the brink of collapse where they had no option but to restructure or perish. In some sense, a Darwinian struggle ensued. Such immense pressure, they argue, led to an increase in efficiency as it was only the fittest who could survive such a pressure.
Second, the ‘hard-edged’ brand of capitalism also left the workers insecure and powerless in the process, especially during the transitory period of heavy restructuring. The extent of job losses, not just for the blue collared workers but also for the white-collar employees, was rampant during this phase. Union busting was a part and parcel of the process of restructuring because unions invariably increased the cost of labour for the corporations. This relatively unfavourable position ‘traumatised’ the workers who pushed less aggressively for wage enhancement. In other words, the Phillips curve shifted to the left i.e. the non-accelerating rate of unemployment (NAIRU) decreased, leaving the trade-off between inflation and growth on more favourable terms. As a result, the upper limit of growth for the economy was relaxed since it could grow at a much faster rate now without worrying much about the inflationary pressures. This point needs further elaboration.

The shift in NAIRU can be understood from the fact that while NAIRU was popularly believed to be between 5.5 percent and 6 percent, unemployment stood at mere 4.1 percent in December 1999, which was its lowest in twenty-nine years. Consequentially the growth rate of GDP was a record high at 4.5 percent on average between the beginning of 1996 to the end of 1999. And yet, the Federal Funds rate (which possibly determines a band of other interest rates for the economy) during these four years were not increased except for a minor revision in March 1997. In fact, the Fed cut the funds rate by 75 basis points towards the end of 1998. Interestingly, inflation, far from accelerating during this period, was falling from 3.3 percent in the last quarter of 1996 to 1.6 percent in 1998. Why did that happen? The compensation of workers was growing very slowly despite the tightness in the labour market because the workers were terrorised by corporate restructuring which led to dramatic job loss. Given that they were extremely concerned about job security, they did not press for higher wages. Moreover, the increasing pace of technological innovation made the jobs skills obsolete at a faster rate which further increased the insecurity of the workers. There is a possibility of this insecurity being permanent in nature rather than just a short term phenomenon. A substantial decline was registered in the fringe benefits that the workers got over and above their wages.

Third, the savings and loan market debacle of the 1980s had also spread to the commercial banks, which resulted in bank failures at significant levels. Recession of 1990-91 gave a further blow to the already ailing banking and financial system. The thoroughgoing restructuring of the banking and finance industry that followed resulted in a healthier financial sector which could react
positively to the monetary policy measures of the Fed and help it in steering the economy out of the economic recession of 1990-91.

Thus, for the reasons mentioned above, financial economists and some others have argued that there is a positive relationship between the heavy restructuring that took place in the 1980s and 90s in the US and the high economic growth that occurred in the 90s. In essence, the arguments are variations of the efficiency argument. According to this view, there is an overlap between the stock market performance and the efficiency of the firms defined in terms of better utilisation of the real resources. They argue that the takeover market ensures that the non-performing firms are taken over by the performing ones. This results in generation of stockholder value, especially for the acquired companies, which are nothing else but a reflection of the 'synergy gains' that result from the takeovers. Such a process, according to them, is beneficial not only for the shareholders but for the economy as a whole.

There is, however, another perspective from which this relationship has been looked at within the current dominant strand. As shown in chapter 1, concentration has also taken place in the form of income and wealth inequalities, which were themselves linked to the process of restructuring in business. There have been theories arguing the positive effects of inequality on growth, which we examine in greater detail.

2.1.2 Inequality Results in Higher Growth

In this subsection, we present theories which attempt to establish a positive effect of inequality (or concentration of income and wealth) on growth. Since we are trying to look for macroeconomic impact of concentration of income or wealth, the purpose here is not to study the impact of growth on inequality but the other way round. It is not even a study of contemporaneous movement of the two, rather our attempt here is to establish a causality, if any, running from inequality to growth.

The relationship between inequality and growth has been a subject of study especially since the days of Kuznets when he proposed the inverted-U relationship between the two. Okun (1975), writing later, found a clear tradeoff between equity and growth. Interest in this question was particularly revived after a dramatic increase in inequality since the 1980s, especially in the US. Benabou (1997) and Aghion, Caroli, and Garcia-Penalosa (1999) provide an excellent survey of the literature on this subject.
2.1 Concentration Enhances Growth

On the positive impacts of inequality on growth, there have broadly been two arguments that have been advanced in the existing literature which we analyse below.

Indivisibilities in Investment and Capital Market Imperfections:

Since investment in capital is invariably saddled with indivisibilities, there are large sunk costs involved on the part of the investor. In other words, there is a minimum scale of operation for any machinery and to be able to successfully run that machinery, one not only has to have access to capital that is sufficient to install and run the machinery but also to have access to a large enough share of the market so that the goods produced from this machinery are sold. This would be especially true in setting up a new industry or a firm or investing in new innovations. One could, however, argue that in a well functioning capital market, raising capital should not be a problem for any profitable venture and therefore, how much capital one owns should not be a constraint. But reality is very different from the Modigliani-Miller world where the capital markets are perfect. The capital markets allocate credit according to the creditworthiness of the borrowers which is dependent on their present income and wealth. Given that the capital markets are imperfect, we are back to a situation where concentration of wealth would be central to creating a congenial atmosphere for investment. There are studies that analyse the relationship between inequality and growth in the presence of capital market imperfections (Galor and Zeira (1993); Loury (1981)).

Loury (1981) argues that in the presence of capital market imperfection, where borrowing is costly, total investment in the economy is heavily dependent on the initial distribution of wealth. Only those who have enough initial wealth can have better access to investment both in machinery as well as human capital. This result, however, is only valid for the short run. He argues that, in the long run, irrespective of the initial wealth distribution, it would converge to a unique ergodic distribution where the link between inequality and growth would cease to exist.

Galor and Zeira (1993) extend this analysis to show the effect of inequality in the long run as well. For doing so, they add another realistic assumption that investment in human capital\(^{10}\) has indivisibilities involved. In other words, there is a minimum investment, say in education, that is mandatory to acquire human capital. There are two sectors in the economy, skilled and unskilled and

\(^{10}\) While the authors have focused on human capital, Barro (2000) correctly argues that they can be extended to physical capital as well.
the wages in them are different i.e. a skilled worker earns much more than the unskilled worker. All individuals inherit some wealth at the beginning of the period in an overlapping generations setting where they leave a bequest for their heirs.

Whether or not a worker would invest in acquiring a skill would squarely depend on the wealth that she has inherited, even though she has the option of borrowing from the market. Since, in a market with imperfections, borrowing is more expensive because of the costs that the lenders charge to cushion against defaulters, an individual decides whether to borrow or not depending on the costs and benefits involved. A person with low inheritance would weigh the cost of extra borrowing that would be required to invest in acquiring the skills (indivisibility of capital plays a central role here) against the benefit of getting higher wages later. If the costs are too high, she would opt out and prefer to work as an unskilled worker. There would, therefore, be a minimum critical value of inheritance where the worker would just break even. All the workers having an inheritance greater than this critical amount would invest in acquiring skills. Within them, some could have a higher inheritance than the critical investment required for acquiring skills, such workers act as lenders.

Their model presents a critical knife-edge equilibrium sandwiched between two stable equilibria for the system. Those workers who inherit more than the knife-edge level would gravitate towards the higher and stable equilibrium in the skilled sector and those below that gravitate towards the lower equilibrium in the unskilled sector. This results in the creation of two different strata of people within an economy. Distribution between these two sections would itself depend on the initial distribution of wealth. Interestingly, therefore, the level of inequality in an economy is a historically determined variable. The level of income and wealth would be directly proportional to the percentage of rich in the beginning. Therefore, in the presence of indivisibilities of capital and market imperfection, inequality of income and wealth could have a positive effect on growth.

The Incentive Argument:

In contrast to the inheritance argument presented above, it has been argued that the inequality in earnings is a reflection of the dispersion of 'ability' of individuals in any given population (Muirlees (1971)). The people who have relatively higher ability would be interested in contributing the most to the growth.

11 This extra charge itself would be dependent on the amount that one borrows because a higher amount of loan has a higher probability of default too.
society in terms of output only if there is an adequate 'incentive' structure. In the absence of the extra incentive, any individual with an extra ability would not be inclined to put in the extra effort and would, therefore, not part with her leisure to the same extent as she would have done in the presence of a higher remuneration. Therefore, any attempt to reverse the inequality generated in this manner would involve a distortion in the incentive structure and would produce an inferior result for the society. Mirrlees (p.175) says,

As a result of using men's economic performance as evidence of their economic potentialities, complete equality of social marginal utilities of income ceases to be desirable, for the tax system that would bring about that result would completely discourage unpleasant work.

Aghion, Caroli, and Garcia-Penalosa (1999) provide a simple framework to explain the incentive argument. In the Ramsey-Cass-Koopmans model, the rate of growth of per capita consumption\(^{12}\) is given by,

\[
g = \frac{r - \rho}{\sigma}
\]

where,

\[
r = \text{after tax rate of interest}
\]

\[
\rho = \text{intertemporal discount rate}
\]

\[
\sigma = \text{elasticity of marginal utility}
\]

In a representative agent model and the presence of perfect capital markets, this would also be the rate of growth of output for the economy. In such a case, any

\[12\text{ It would suffice to mention here that under the Cass-Koopmans framework, one can arrive at the steady state growth rate of per capital consumption in the following manner,}
\]

\[
\max U = \int_0^{\infty} u(c_t) e^{-(\rho - n)t} dt
\]

s.t. \(\dot{a} = w + ra - c - na\)

where,

\[
c, w, a = \text{per capital consumption, wage income, real assets}
\]

\[
n = \text{rate of growth of population}
\]

\[
r = \text{rate of interest}
\]

\[
\rho = \text{intertemporal discount rate}
\]

If one substitutes an exact form of utility function for convenience, as is generally assumed in such models, such that it results in a constant elasticity of marginal utility.

\[
u(c) = \frac{c^{(1-\sigma)} - 1}{1 - \sigma}
\]

Such a maximisation exercise, with the appropriate transversality condition, results in the growth rate of per capita consumption as shown in text.
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attempt towards redistribution that takes place through levying taxes would mean a decline in the after-tax rate of interest. This would reduce the return to saving and therefore affect the accumulation of capital adversely.

There have been other perspectives on the incentive or ability argument and the linkages between inequality and growth. Higher inequality could entail greater political demand for public education which in turn would enhance growth (Saint-Paul and Verdier (1992)). Enhanced incentives could be associated with more work effort (Bell and Freeman (1994)). Difference in ability across individuals leads to heterogeneity in the population which could have opposite effects on growth in the short and the long run (Benabou (1996)). Benabou (1996) argues that whether reducing heterogeneity (or increasing homogeneity) reduces (or increases) the rate of growth is dependent on two separate effects. The first effect is how efficient the social structures are in aggregating disparate levels of human capital in the process of production of goods and new knowledge. If the family background and community quality are complementary to a child’s education then, at least in the short run, heterogeneity is more conducive to growth. The second effect is dynamic in nature, according to which an integrated society is faster at ensuring homogeneity or at least a less unequal distribution of skills.

Galor and Tsiddon (1997b) provide an extensive theoretical framework linking the positive effects of inequality on growth. In their model, the linkage is established through technological progress. There are two kinds of technological progress: inventions, which are major technological breakthroughs, and innovations, which involve a process of gradual technological improvements within each technology. Within innovations, they argue, there could be two categories—gradual technological progress in the frontier of technologies and greater accessibility of complex technologies on a wider scale. While the former increases the return to ability in their opinion because it increases the demand for best-abled individuals, the latter decreases the return to ability because of greater accessibility to a wider number of individuals. Since innovations, defined in this manner, have two opposite effects on equality of income, they use innovations only in the latter sense while use inventions to cover the first term too. They assume that technological inventions ipso facto lead to a spurt in the growth of output based on a variety of theoretical models within the new growth theory.

13 There is an extension of this model which also incorporates the growth of wage inequality within groups as witnessed in the US in the last two decades (Galor and Moav (2000))

14 The relationship between endogenous technological change and growth has been studied extensively in the New Growth theories (Stokey (1988); Romer (1990); Aghion and Howitt (1992); Barro and Sala-i Martin (1995); Barro and Sala-i Martin (1997))
They deal with the dynamics of these two processes as they unfold especially on the earning mobility, income inequality and growth.

Generally, the studies on growth and inequality have developing countries as their subject but Galor and Tsiddon (1997b) attempt to study the validity of their arguments for a developed nation like the US as well. It is this aspect that makes their model more relevant for our present study. An individual’s earning, according to them, is determined by two components: parental human capital and individual’s own ability. So an individual earns more if she decides to join the same sector as her parents because of the advantage that she has due to the parental human capital. These two components of ability play distinctive roles during the process of technological progress. During an invention, it is the individual’s ability that dominates as the importance of parental human capital recedes to the background. However, during the phase of innovations, the parental human capital dominates.

During major technological breakthroughs, the best-abled individuals gravitate towards the sector where these inventions are taking place. In the process, inequality increases between this sector and the technologically inferior sector because wages are a reward for ability. Since technological development itself is directly proportional to the amount of human capital that is invested in this sector, a concentration of talent in this sector itself promotes further technological development which leads to further growth, thus creating a virtuous circle. The relative growth of earnings creates incentives for the most-abled individuals to increase the possibilities of further technological breakthroughs. Once these inventions become available for adoption by wider economy in general, the role of parental human capital dominates in the determination of earnings. Inequality diminishes but becomes persistent because of the presence of difference in the parental human capital. There is a reduction of concentration of human capital in the technologically most advanced sector which further hampers the possibility of technological breakthroughs and hence, retards economic growth.

This paper brings out a novel technological link regarding the positive relationship between inequality and growth. Wage inequality allocates talents across sectors in the most efficient manner and ensures that the technologically most

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15 There is an assumption in these arguments that the economy is divided between some very advanced technological sectors and some not so advanced technological sectors. They do not explicitly state the reasons for what drives the technological breakthroughs in the advanced sectors except for stating that concentration of highly skilled individuals is conducive to technological breakthroughs. Unlike Schumpeter, they do not trace the possibilities of technological breakthroughs to the profit motive of the capitalists.

16 This argument is based on the recent findings in growth theory on the relation between technology and human capital (Galor and Tsiddon (1997a); Tamura (1996)).
advanced sectors, which are the engines of high growth, have a concentration of the most talented individuals. Thus, according to them, there is indeed a tradeoff between equity and efficiency (as defined by higher growth).

Having surveyed the theoretical arguments on the positive relation between concentration, whether in business or of income and wealth, and growth, we would now like to present some empirical evidence from this perspective. Though most of the empirical studies on this issue have found a significant negative relationship between inequality and growth, there are some empirical studies that find a positive relationship between them. We turn to these studies in the next subsection.

2.1.3 Empirical Evidence

The empirical studies on the issue of inequality and growth have primarily been driven by the convergence theory or the 'catch up effect'. Therefore, they have analysed a panel of countries which had varying degrees of inequality. Our purpose, however, is to learn about the relationship between inequality and growth within a country, in this case the US, over a period of time. So these empirical studies would be of limited validity for our purposes but they might provide some insights into the theoretical relationship between inequality and growth.

While most of the empirical studies predict a negative relationship between inequality and growth (Alesina and Rodrik (1994); Benabou (1997); Deininger and Squire (1998); Perotti (1996)), there are a few studies that find a positive relationship between these two (Forbes (2000); Li and Zou (1998)). Forbes (2000) provides arguments for why these studies which predict a negative relationship have lacunae. First, the robustness of these estimates is under question since they can not pass the sensitivity analysis. Second, all of these studies suffer from measurement error in inequality and omitted-variable bias. Third, since these studies are all cross-country regressions, they can not throw light on the relationship between increase in inequality and growth within a country. He tries to address these three concerns in his empirical analysis. He uses the improved dataset which has now become a benchmark for any analysis of inequality (Deininger and Squire (1996))17.

17 There are serious problems over the measurement of inequality especially since it is collected from so many countries. There are irregularities in collection of data on inequality coupled with lack of accuracy and consistency. Despite this, all the studies prior to the compilation of data set by Deininger and Squire (1996) worked with these measurement errors.
In order to draw a direct contrast between the results of those authors who have found a negative relationship between inequality and growth and her results, Forbes uses the same explanatory variables except that she uses them as a panel data rather than a cross-section data set. Moreover, she has added country and period dummies to take care of the omitted-variable bias. On doing so, she finds an exact opposite relation between inequality and growth. In her words (p.878), '[a] ten percent increase in a country’s gini coefficient is correlated with a 1.3 percent increase in average annual growth over the next five years.' Since she has used the Arellano and Bond fixed effect estimators\(^\text{18}\), her estimates also throw light on the relationship between these two variables within a country, a feature which was not available in the previous studies. Her estimates pass the sensitivity analysis too while she argues the estimates of other studies do not qualify. She qualifies her results by saying that this positive relation between inequality and growth is primarily a short and medium term phenomenon, unlike the previous studies which concentrate on the long term relationship between the two. Moreover, it may not apply to poor countries.

Similar to her argument, that the relationship between inequality and growth depends on whether the country in question is poor or rich, there is a study that formulates this question by differentiating the data into poor and rich countries (Barro (2000)). Barro (2000) finds a problem with both Forbes (2000) and Li and Zou (1998) because they use fixed effect models which reduce the number of observations and have high sensitivity to measurement errors. He argues that it is difficult to find any relationship between inequality\(^\text{19}\) and growth if one looks at the entire panel of countries together. The division of the sample between poor and rich countries yields opposite and statistically significant results. He finds (p.29) that

\[\text{[f]or growth, there is an indication that inequality retards growth in poor countries but encourages growth in richer places. Growth tends to fall with greater inequality when per capita GDP is below around}\]

\(^{18}\)This method uses a Generalised Method of Moments (GMM) technique that controls for a country’s time-invariant characteristics. Therefore, instead of analyzing differences in inequality and growth across countries, it focuses on changes in these variables within each country across time.

\(^{19}\)As far as the determinants of inequality and their varying role in the US in the 1980s and 90s are concerned, he finds that there is no systematic variation in the estimates of influence of education, higher schooling included, across these periods. He concludes (p.26), therefore, that

These results conflict with the idea that increases in income inequality in the 1980s and early 1990s in the United States and some other advanced countries reflected new kinds of technological developments that were particularly complementary with high skills. [Emphasis added]
2.1 CONCENTRATION ENHANCES GROWTH

$2000 (1985 U.S. dollars) and to rise with inequality when per capita GDP is above $2000. [Emphasis added]

His analysis involves three time periods: 1965-75, 1975-85 and 1985-95 over which the growth rates or the rate of investment have been measured. He performs a similar test for the effect of quintile shares on growth rate. For the rich nations, the effect of the highest quintile share is positive on the growth rate whereas it is negative for the other four quintiles. Within the four quintiles, the lowest has the most negative impact on growth. For the poor nations, the signs of the coefficients are exactly the opposite.

As noted above, most of these studies (with the notable exception of Forbes (2000) who looks into the within country effects too) have a cross section of data of countries, which may not say much about the effects of inequality on growth particularly within a country, in our case the US. There are studies which look into this question with US as the focal point, especially in the context of unprecedented increase in inequality in the 1980s and 90s (Partridge (2005)). He uses the data of 48 states within the US over a period between 1960-2000 as a panel data to estimate the relationship between inequality and growth. He argues that two different variables of inequality, gini coefficient and the third quintile (Q3\textsuperscript{20}), should be incorporated in the regression because the real effect of inequality on growth can only be identified when these two variables are used in conjunction with each other. He differentiates between the long-term and short-term effects of inequality on growth. While, there is an ambiguity over this effect in the short-term, inequality has an unambiguous positive effect on growth. This is coupled with a positive relation between Q3 and growth. Though the relationship between gini and Q3 is positive for a range, which means that a growth in the share of middle class (Q3) also means a growth in inequality but beyond that range they are inversely related. Therefore, even though inequality increases long-term growth through incentive creation, if it ‘increases too much, political conflict and other models suggest growth will eventually decline.’ This paper, therefore, argues that the growth of inequality of the 1980s and 90s in the US was beneficial for growth in the economy even though the lens through which he looks at this process is the economy of the states within the US.

We have surveyed the literature on the positive macroeconomic impacts of concentration of income and in business on growth. As shown above, both the financial economists and the Neoclassical economists provide theoretical as well as empirical evidence in favour of such a relationship. The strongest evidence that they provide, as argued above, is the consistent growth of the US economy within a country, in our case the US.

\textsuperscript{20} The third quintile is to be interpreted as the share of the middle class in any population.
in the latter half of the 90s while inequality was growing during this period. We would now present the theoretical apparatus which argues exactly the opposite i.e. increase in concentration of capital results in decline in the trend rate of growth.

2.2 THE STAGNATIONIST VIEW

We have presented a whole range of theories which argue that inequality enhances growth in the economy. The common thread within these theories is that they all assume away the demand side problems and concentrate only on the supply side issues by focusing on either the technological aspects or inherent ability of individuals or inheritance. In contrast to this view, there are studies linking concentration and growth where demand plays a central role. This latter view can be further divided up into two categories—stagnationists and exhilarationists. We concentrate on the stagnationist view in this section.

Since the Kaleckian demand-determined framework is common to both these categories, we first present that framework and add new relationships according to the different theories that we analyse below.

According to the stagnationist view, capitalism as a system is prone to periodic crises. One of the many routes through which a crisis can arise in capitalism is through what is called 'underconsumption', according to which there is a shortage in aggregate demand because of a decline in consumption due to a shift of income away from wages to profits. The antecedents of this phenomenon can be found in Marx's Capital which have been refined by economists like Kalecki, Steindl, Baran and Sweezy and the contemporary structuralist school. We would like to present their theoretical arguments in details in this section, in the light of which some data would be presented to see whether their arguments hold validity for the US.

2.2.1 The Basic Framework:

For this section as well as the next section, the basic demand-determined framework used is taken from Kalecki. Since this would also be the building block for our own argument in the next chapter, we would lay it down before coming to the specificities of the various arguments. We present only that part of this framework which is common to all the theories that we present below. As we shall see that the various theories that we present below differ from each other
2.2 THE STAGNATIONIST VIEW

primarily in the way the investment function is defined. Therefore, it is the savings function of the Kaleckian variety which is common to both the stagnationist as well as the exhilarationist school.

We assume a one good closed economy model with no government sector for simplicity. It is the aggregate demand that decides the level of output that would be produced and the economy does not hit the supply constraint. The aggregate demand consists of consumption by workers, consumption and investment by capitalists. The economy is divided between two classes: workers, who do not save and capitalists, who save a fixed proportion \( s_\pi \) of their profits. The assumption of no savings out of wages is only on account of simplicity and can be relaxed as Kaldor (1956) and Pasinetti (1962) had done.

The Consumption Equation: We write the consumption equation for this economy along the lines of Kalecki (1971), where

\[ C_t = W_t + c_\pi \Pi_t, \quad 0 < c_\pi < 1 = c_w \]

where,

\[ C_t, S_t, \Pi_t = \text{Total real consumption, savings, profits} \]

\[ c_w = \text{Propensity to consume out of real wages} = 1 \]

\[ c_\pi = \text{Propensity to consume out of real profits} \]

We can write a relationship between the savings-capital ratio and the rate of profit\(^{21}\), where \( s_\pi \) is the savings propensity, in the following manner,

\[ \frac{S_t}{K_t} = \frac{S_t}{\Pi_t} \cdot \frac{\Pi_t}{K_t} = s_\pi \pi_t \]

\[ (2.6) \]

---

\(^{21}\) The profit rate in turn is defined by

\[ \pi_t = \frac{\Pi_t}{K_t} = \frac{\Pi_t}{\bar{O}_t} \cdot \frac{\bar{O}_t}{K_t} = h u_t \beta \]

where,

\[ K_t = \text{Capital stock at time } t \]

\[ \pi_t = \text{Rate of Profit at time } t \]

\[ \beta = \text{Technologically given output-capital ratio} \]

\[ u_t = \frac{O_t}{\bar{O}_t} = \text{Degree of capacity utilisation at time } t \]

\[ h = \text{Profit share} \]
2.2 THE STAGNATIONIST VIEW

Eq. 2.6 gives us one equation in two unknowns, the rate of profit ‘\( \pi \)’ and the savings-capital ratio ‘\( S/K \)’, which can be diagrammatically represented in fig. 2.1. We would, therefore, need one more relationship between these two variables to make this system determinate. It is essentially this second relationship, which is the investment function, where the stagnationist and the exhilarationist schools part ways.

\[
S/K = s_\pi \pi
\]

Figure 2.1: Kaleckian Savings Function

After having presented the common feature of this framework, let us see how the different variants within the stagnationist as well as exhilarationist schools attempt to close this under determinate system. In the rest of this section, we present the arguments of Steindl (1952), Baran and Sweezy (1966), Rowthorn (1982), Taylor (1985) and Dutt (1984) in this Kaleckian framework and see what role does concentration and distribution play in the theory of growth. The next section would provide the exhilarationist argument which seeks to close this system through alternative means.

2.2.2 Steindl's Maturity and Stagnation:

To explain the experience of the Great Depression with special reference to the United States, Steindl wrote a very influential book named *Maturity and*

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22 Since investment is a third independent variable in the system, we would actually need a third equation to make this system determinate. This third equation is nothing else but the savings-investment equality of the Keynesian variety.

23 Influential in the Marxist or post-Keynesian circles and not necessarily within the neoclassical school even though his book contained answers to a lot of intriguing questions of those times. In
Stagnation in American Capitalism where he explored the reasons for this stagnation that had engulfed the entire capitalist world. His attempt was to provide a dynamic theory of growth in the presence of oligopolistic formations that had taken place over the years. His basic premise was that capitalism had changed fundamentally with the advent of large corporations. He was trying to analyse the macroeconomic repercussions of the changing nature of the firm and, in that sense, it was a novel attempt to combine the insights of competitive and oligopolistic behaviour built under 'microeconomics' with the macroeconomics of the economy.

Unlike the competitive phase of capitalism where the profit margin was flexible, the mature phase of capitalism enforced a downward rigidity in the profit margin. Therefore, the adjustment mechanism to any fluctuations in the aggregate demand could no longer afford to have two independent routes in the form of flexibility in profit margin and capacity utilization. The oligopolistic phase of capitalism has, therefore, only one route available which is a flexible rate of capacity utilization. Since capacity utilization itself enters into the investment function, which drives the growth process in an economy, a negative change in the capacity utilization affects investment adversely and in turn harms growth. How this capacity utilization ultimately changes is through the decline in consumption because workers consume more of their wages than the capitalists and any increase in the profit margin tilts the income share in favour of capitalists. In what follows below, we first present the process through which downward rigidity in profit margins is ensured through concentration of capital. Then we present his argument as to how this change in competitive structure changes the growth process under capitalism.

**Downward Rigidity in the Profit Margin:**

To understand Steindl’s argument, we need to understand his theory of price formation. He argued that within an industry, there are a variety of firms with different cost structures and due to economies of scale, bigger firms often have

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24 By competitive phase, he did not mean perfect competition but that there were marginal producers (defined later in detail) who could easily be out competed and eliminated by others.

25 Flexibility of the profit margin, if possible, could play a crucial stabilizing role in the economy because it directly affects the distribution of income between wages and profits as we have shown before in 1.3.
lower costs\(^{26}\). This leads to a hierarchy of costs among firms within an industry as shown in fig 2.2. The decreasing cost structure is given by \(BC\) whereas the prices are given by \(BP\). The point to be noted here is that there is no uniformity in prices across the firms because they charge different prices according to product differentiation. Difference between \(BP\) and \(BC\) is the profit margin (a concept similar to the markup as defined above\(^{27}\)) for these firms and the area \(BPC\) is therefore the total profits generated in this industry.

To understand how the profit margins behave during the competitive and oligopolistic phase of capitalism, we need to understand the process of accumulation in an industry.

Sales of a firm in an industry can be broken down in the following form,

\[
\begin{align*}
Y_{ij} &= \frac{Y_{ij}}{\bar{Y}_{ij}} \cdot \frac{\bar{X}_{ij}}{X_{ij}} \cdot \frac{K_{ij}}{\bar{X}_{ij}} \cdot \frac{E_{ij}}{K_{ij}} \\
&= u_{ij} \cdot \beta_{ij} \cdot g_{ij} \cdot \eta_{ij}
\end{align*}
\]

(2.7)

where \(a_{ij}\) is the value of the variable \(a\) for the \(i^{th}\) firm in the \(j^{th}\) industry, \(E\) is the firm’s internal capital and \(g\), its gearing ratio defined as a ratio of total capital to internal capital. If the instantaneous rate of growth of these variables is calculated then we get the following, for every firm \(i\) in the industry \(j\)

\[
\frac{\dot{Y}_{ij}}{Y_{ij}} = \frac{\dot{u}_{ij}}{u_{ij}} + \frac{\dot{\beta}_{ij}}{\beta_{ij}} + \frac{\dot{g}_{ij}}{g_{ij}} + \frac{\dot{a}_{ij}}{\text{internal accumulation}}
\]

(2.8)

The rate of growth of output in an industry in equilibrium defined by a condition where the level of concentration remains unchanged\(^{28}\) can be calculated by aggregating the rates of growth of individual firms with appropriate weights

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26 The costs for the bigger firms could be higher if the fixed costs for the machinery are too high but even then beyond a critical minimum scale the costs would decrease because of higher productivity.

27 Steindl quite categorically distinguished his concept of profit margin from the concept of markup because he believed that Kalecki’s markup is intricately linked to the elasticity of the demand curve which, unlike in the traditional economic theory, is not a determinant of the profit margin in his theory. He argued that price formation for most of the products is not based on the elasticity of demand because for almost all the products, the elasticity is quite low in the short run. Businessmen do not want to reduce prices in the short run because it would not bring in any substantial extra demand. Though in the long run, the habits and preferences of consumers might change and price could have an effect but he argues that in many cases the elasticity is too low to be a decisive determinant of prices even in the long run. It follows then that the firms could charge very high prices if the elasticity is too low but the upper limit to the price is fixed by the fear of new entry. He argues that instead of the elasticity of demand, it is the cost differential across firms in an industry that determines the price structure as shown in this section.

28 This is so because if the process of concentration is on, some firms would get eliminated and therefore, the total output of the industry would not be the sum of the erstwhile firms.
2.2 THE STAGNATIONIST VIEW

Steindl analyses the process of accumulation according to the above principle but distinguishes between industries which have a competitive structure and those that do not. He defines the high cost firms as marginal firms and the low cost firms as intra marginal firms. The pricing behaviour varies according to the character of the industry, which we show below.

Case (a) Plenty of Marginal Producers with Normal Profits: In a situation where there are plenty of producers with normal profits and there is a possibility of entry of new firms into the industry, there will be an effort by the intra marginal producers to try and increase their sales by encroaching on the shares of the
2.2 THE STAGNATIONIST VIEW

marginal firms through intensive sales effort. The marginal firms in turn can match such an aggression only through a price cut which eventually makes the production unviable for these marginal producers because their profit margins are very low to begin with. This can be seen mathematically, for a situation of disequilibrium

\[
\frac{\dot{Y}_j}{Y_j} = \frac{\dot{u}_j}{u_j} + \frac{\dot{p}_j}{p_j} + \frac{\dot{g}_j}{g_j} + \alpha_j - \varepsilon \quad \text{elimination of marginal firms remaining firms}
\]

Thus, there could be situations when the rate of internal accumulation \(\alpha = \frac{\dot{e}}{e}\) is greater than what the overall growth of the industry can accommodate. Suppose the size of the industry expands from OA to OA" but the internal accumulation of the least cost firms (Steindl called them progressive firms) permits them to increase their size such that the output has to expand to OA' (in fig 2.2). This, according to eq 2.10, would mean a decline in the capacity utilization of the various firms in the industry assuming their gearing ratios and technologically given capital output ratios remain constant\(^{29}\). This mismatch between the demand and the capacity to produce would lead to a competition to capture the share of the market of the small higher cost firms (marginal firms) through price wars or aggressive sales efforts by the large lowest cost firms \((c-a)>\) in eq 2.10). This would lead to absolute concentration of the intra marginal firms. This process of adjustment could go on for as long as there are a number of marginal producers who only receive normal profits and collectively have a decent share in the market. This process of competition would shift the price curve downward to B'D. Such a shift in the price curve would eliminate the higher cost firms such that IA'\((=OA'')\) amount of good is produced. It can be seen easily from the figure that in this case, the pressure of excess capacity leads to a decline in the profit margin.

But such a situation wherein there are good number of marginal firms with only normal profits would exist only in the initial phases of a nascent industry

\(^{29}\) Steindl assumed that the firms' first line of investment of the capital that they accumulate is in their own industry. In the absence of this assumption, the extra capital accumulated by the marginal firms could be invested in other industries which would not force the capacity utilization to fall in their primary industry at least. As far as the two factors, capital intensity and gearing ratio are concerned, he argued that there is a possibility of decrease in the output-capital ratio(\(p\)) due to technological innovations. But adoption of such technological innovations themselves generate conditions for the lower costs firms to accumulate more because of their higher profit rate resulting from the differential cost advantage. As for the gearing ratio \((g)\), it is less likely to go down in a situation where the industry is expanding and there is a possibility for the firms to expand at a faster rate than the industry by eliminating the smaller high cost firms. At any rate, for his argument to remain valid, he only needed that the entire increase in the rate of internal accumulation is 'not fully offset by a reduction of gearing ratio'(p.49).
and thus initial phases of capitalism. What we actually see in today's matured capitalism is an oligopolistic market structure which we analyse next.

Case(b) Marginal Producers Earn Supernormal Profits: As far as the monopoly phase is concerned, the sizes of the firms in an industry grow to unimaginable proportions and the cost differentials among them also decline so that even the higher cost firms make super-normal profits, a situation depicted in panel(b) of fig 2.2. The cost curve for all the firms has shifted downwards and its slope also has declined which means the power of the lowest cost firms to eliminate the marginal firms through price competition has diminished. Here, the marginal firms, i.e. those firms which have the highest cost structure in an industry, also have a high profit margin, as can be seen from the difference between the cost curve EC and the price curve BP on the extreme left of the figure (panel (b)). Even if the bigger intra marginal firms threaten to lower the prices by shifting BP down, it would not eliminate the marginal firms at all unless the decline in prices are drastic. In such situations where the price competition may tend to be futile, there would not be a tendency for the profit margins to decline because any decline in prices relative to costs would harm everybody.

That is not to say that the possibility of out competing other firms through sales effort is altogether missing in this case. In fact, even in such a situation, if the cost differentials are strong enough, the intra marginal firms can under cut the prices of the marginal firms but the cost differentials for these purposes would have to be extremely high, which would be difficult under normal circumstances. Steindl assumes a critical level of cost differential between the marginal and the intra marginal firms beyond which the intra marginal firms would once again indulge in price wars to eliminate the marginal firms. In the absence of the competitive struggle among firms in the form of price wars, there would be a tendency for the profit margins to not only stabilise at a positive level but to also have a downward stickiness. This profit margin would be higher than what would have been in the competitive phase. Even the intra marginal firms would have a positive profit margin.

Steindl argues that in this case, as can be seen from eq 2.10, if the rate of accumulation of all the firms put together is higher than what the rate of growth in the industry can accommodate, gearing ratios of the leveraged firms could decline as the firms pay their debts off which also brings about an equilibrium without making elimination ($\epsilon > 0$) mandatory. In such situations, which would be the general structure of capitalism in its monopoly or matured phase, the markups in the industries become sticky downwards as the firms collude to avoid any decreases in the markup since this would harm everybody.
2.2 THE STAGNATIONIST VIEW

Concentration, Underconsumption and Underinvestment:

Having explained the nature of movements of profit margins in the ‘mature’ phase of capitalism, let us now come to the process through which these movements affect the trend rate of growth. Since Steindl was not interested in the explanation of business cycles, he concentrated on the trend rate of growth that a business cycle generates. To generate such a model of growth, he improvised on Kalecki’s investment function. Kalecki has shown that in the absence of a semi-exogenous factor like innovations, a capitalist system cannot function at any other trend rate of growth except zero (Kalecki (1962)). In other words, the Harrodian warranted rate of growth is ‘ephemeral’ and that any deviation from it would not only not bring the economy back to the same growth rate but it would stabilise the economy in a situation of simple reproduction i.e. the economy would be ‘subject to cyclical fluctuations but no trend’.

In the first edition of his book, Steindl denied the importance of innovations in producing a trend in the economy. He had a problem with this formulation of Kalecki as he argued that the trend rate of growth in capitalism should be generated due to endogenous factors themselves rather than depend on semi-exogenous factors (Steindl (1952)). Moreover, innovations, according to him, merely alter the form of investment. Therefore, it should not be counted as a separate determinant in the investment function. However, he changed his position later and agreed with Kalecki that there is a need for semi-exogenous factors like innovation to generate a positive trend rate of growth in a capitalist economy (Steindl (1976); Steindl (1989)). He writes (Steindl, 1976, p.xii, xvi),

I denied innovations stimulate investment... Those ideas (e.g., new products) which are sufficiently advanced, which can be exploited without too much delay and risk, and which somehow appeal to the businessman’s mind are scarce indeed, and their emergence in each case is a powerful inducement to invest. [p.xii] ...

Unfortunately I failed in [integrating trend and cycle theory] because I disregarded Kalecki’s warning that a self-continuing stable trend would come about through innovations or other exogenous factors. [p.xvi]

Since Steindl changed his earlier position on the role of innovations and argued for incorporation of innovations as a separate inducement to invest, we improvise his basic arguments in the discussion that follows by adding innovations as a separate determinant of investment on the lines of Kalecki.
2.2 THE STAGNATIONIST VIEW

The important contribution of Steindl to the Kaleckian theory of investment was the introduction of capacity utilisation and gearing ratio as arguments into the investment function. Thus, instead of measuring the demand factors indirectly through profits in the Kaleckian investment function, capacity utilisation plays a central role in Steindl’s investment function. For the present purposes, we abstract from the influence of the gearing ratio to keep the matters simple. The investment function that we present below, which has been taken from Patnaik (1997), is in some sense an assimilation of the essence of Kalecki’s and Steindl’s investment functions.

\[
\left( \frac{i}{K} \right)_t = \left( \frac{i}{K} \right)_{t-1} + b(u_{t-1} - u_0) \left( \frac{i}{K} \right)_{t-1} + e
\]

where,

\(i_t = \text{net investment at time } t\)

\(K_t = \text{capital stock at time } t\)

\(u_t = \frac{Y_t}{Y_t} = \frac{Y_t}{K_t} = \frac{Y_t}{K_t}\beta\)

\(u_0 = \text{entrepreneur’s planned degree of capacity utilisation}\)

The investment in gross terms can be written as

\[
\left( \frac{I}{K} \right)_t = \left( \frac{I}{K} \right)_{t-1} + b(u_{t-1} - u_0) \left[ \left( \frac{I}{K} \right)_{t-1} - d \right] + e
\]

where,

\(I_t = \text{gross Investment at time } t\)

\(d = \text{rate of radioactive depreciation of capital stock, } K\)

This investment function provides the second relationship required to close the under determined eq:undercons. If in the savings function, we rewrite the rate of profit as shown in eq. 2.5, we can show the savings function as a function of the degree of capacity utilisation, assuming the profit share and the techno-

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30 Investment in Steindl’s model is crucially dependent on four factors; the level of capacity utilization ’ut’, the gearing ratio ‘g or I/E’, the internal accumulation ‘E’ and the rate of profits’‘nt’.

Steindl had described his investment function as follows:

\[
I_{t+\theta} = \gamma E_t + U(u_t - u_0) + G(g_t - g_0) + P(n_t)
\]

where,

\(\gamma > 0, \quad U' > 0, \quad G' < 0, \quad P' > 0\)

\(g_0 = \text{desired rate of gearing ratio}\)
logically given capital–output ratio as exogenous. Savings as a function of the capacity utilisation is shown in fig. 2.3. After the introduction of the investment function, we have three unknowns, $S/K, I/K$ and $\pi$ and two equations so far. The third equation is provided by the Keynesian savings–investment equality in the following manner,

$$O_t = W_t + \Pi_t = C_t + I_t$$

$$\Rightarrow \Pi_t = c_T \Pi_t + I_t$$

$$\Rightarrow S_t = I_t$$

The causality, of course, runs from investment to savings in such a system. The three equations 2.6, 2.13 and 2.14 in three unknowns produce the equilibrium rate(s) of growth and capacity utilisation as shown in fig. 2.3.

Figure 2.3: Distribution and Growth: Illustration based on the Argument of Steindl (1976)

As can be seen from fig. 2.3, this non–linear investment function generates two rates of growth (exactly in the manner that Kalecki (1962) had shown), only one of which is stable. In line with the Kalecki’s argument, the higher rate of growth disappears and the economy is at a stable equilibrium only at the origin or 'zero trend'.

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31 It can be seen from the figure that in the absence of semi–exogenous factor like innovations, the investment curve would shift down and start from the origin. This would ensure that the positive stable rate of growth disappears and the economy is at a stable equilibrium only at the origin or 'zero trend'.
growth is unstable which is also the warranted rate of growth of Harrod and the instability around it is his knife edge problem.

To understand the equilibrium process, let us recall that it is the savings that adjust to the autonomously given investment in any period $t$. Assuming that the propensity to save out of profits and the technologically given output–capital ratio in eq. 2.6 are given a priori, there are only two mechanisms left through which an equilibrium can be achieved — both in the short and the long run — changes in the profit share and capacity utilisation. We have already shown above that in the oligopolistic phase of capitalism, there is a downward stickiness in the profit margin (and thus in the profit share). Since that is the case, the only equilibrating mechanism that is left at hand is the degree of capacity utilisation. Let us now see how the process of growth unfolds in the presence of increase in concentration of capital. Steindl identified three different routes through which an increase in concentration can have an adverse impact on the equilibrium rate of growth.

1. Underconsumption: Steindl argued that with increase in concentration in the industry, the average profit margins of that industry increase due to the economies of scale and greater cartelization in the market. Moreover, bigger corporations eat up the smaller ones which itself results in an increase in the profit margin because the bigger firms have a higher margin than the smaller ones. The increase in the profit margin due to these two routes results in a shift of income away from wages towards profits (see eq 1.3). Moreover, within profits, there is a shift of profits from the smaller capitalists to the bigger ones.

Since the propensity to consume of the working class or even the smaller producers is higher than that of the big capitalists, any such income shift would result in a decline in share of consumption as a proportion of output. This would be easy to see if we use the eq. 2.6 and differentiate the average propensity to consume with respect to the profit share as shown below,

$$\frac{dc_t}{d\pi} = c_{\pi} - 1 < 0$$

(2.15)

since, $c_\pi < 1 = c_w$

32 But it is still a one time increase in the profit margin with every effort to further cartelize the industry. In other words, the profit margin, after the process of concentration is over, settles down at its new value and does not keep on increasing, unlike in the case of Baran and Sweezy (1966).
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This decline in the average rate of consumption is exactly the mirror image of an upward shift in the savings curve from OS to OS' as shown in 2.3. In the absence of any counteracting force, this would lead to an increase in potential savings from \( Eu_s \) to \( Pu_s \) at the earlier rate of capacity utilisation \( u_s \). This increase in potential saving, however, would not get realised since there is no reason why investment should also increase by the same amount. On the contrary, a decline in the aggregate demand would have an adverse impact on investment-capital and it would decline to \( E'u'_s \) at a lower rate of capacity utilisation \( u'_s \).

The only way this could have been avoided is if in the wake of declining capacity utilization for the individual capitalists, prices and margins had adequately declined which would have reverted the savings function back to its original position, a likely possibility in the competitive phase. But that is not the case in the monopoly phase of capitalism. This downward stickiness of markup, therefore, leads to a decline in growth or even stagnation through the route of underconsumption.

But while describing his theory of underconsumption in the light of observed empirical facts, he argued that underconsumption does not mean an actual decline in the share of consumption out of output or even an actual increase in the profit share. He found from Kuznets' data that neither has the share of consumption declined in output nor has the share of profits increased in the later stages of capitalist development but that, according to him, does not negate the theory of underconsumption because the decline (or increase) in consumption (or profit share) as a result of concentration after all exists potentially. To reconcile the apparent divergence between theory and empirical facts, he argued (Steindl, 1952, p.245),

If we think of it, the tendency for the capitalists' share in the product to increase does, after all, exist potentially. It is a consequence of the growth of oligopoly. The expression of this tendency can only be an increase in the gross profit margins. That means that the actual share of net incomes of capitalists need not increase at all. The increased gross profit margins may be compensated by a reduced degree of utilization, so that there is not a shift of actual income from wages to profits, but a shift of potential income of workers to wastage in excess capacity. [emphasis, except in the last sentence, in the original]
2.2 THE STAGNATIONIST VIEW

We present a comprehensive critique of these theories later but before coming to substantial points, we would like to counter the point raised by Steindl that even though there might be an increase in the profit margin, there need not be a shift in favour of profits because of the decline in the level of capacity utilization. We believe that Steindl seems to have confused between the concept of the profit rate and profit share. Let us write this relationship below and using the markup eq. ??,

$$\Pi = \frac{\Pi}{O} \cdot \frac{O^*}{K} = \frac{h \mu \beta^*}{O}$$

where,

$$h = \frac{\Pi}{O} = \frac{\mu - 1}{\mu}$$

From the equation above, it can be noticed that any increase in the markup \((\mu)\) would ipso facto lead to an increase in the share of profits\((h)\) at all levels of output whether there is a coterminous decline in the capacity utilization or not. It is the rate of profit or even the profit as a proportion of the potential output which remains constant if the capacity utilization declines in exactly the same proportion as the increase in the profit share. Therefore, the tendency of underconsumption should not merely get reflected in the building of idle capacity but also in terms of an actual decline in the share of consumption at all levels of output quite apart from the potential output.

2. Underinvestment due to an increase in the desired rate of capacity utilization: There is always an idle capacity that is desired by the capitalists as a contingency against the unexpected increase in the market share and also to use it as a threat against the competitors. Therefore, the desired rate of capacity utilization, argued Steindl, should also be dependent on the nature of competition that the firms are faced with. With growing cartelization and concentration, at least the possibility of increasing one’s market share at the cost of others becomes bleak, which in turn should lead to a decline in the desired level of idle capacity that is needed as a contingency\(^{33}\). An increase in the desired rate of capacity utilisation from

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33 One should remember that the decision to keep idle capacity at all times would involve some costs because that portion of capital is idle by default. This cost can be minimised if the corporations are assured that their market shares are fixed, the best example of which would be a case of pure monopoly. In that case, the firms would try to minimise the level of idle capacity because they know that they are the only sellers in that industry and the likelihood of encroachment of their markets by rivals is negligible.
2.2 THE STAGNATIONIST VIEW

$u_0$ to $u'_0$ shifts the investment curve downward from $OI$ to $OI'$ (see fig 2.4). This would mean that the current equilibrium rate of capacity utilisation $u_s$ would itself become low relative to the new desired rate of capacity utilisation leading to a decline in investment. The new equilibrium shifts to $(u'_s, g'_s)$ where the new rate of growth and utilisation are both lower.

![Graph showing investment curves before and after the shift]

Note: For simplicity, we have assumed $d=0$

Figure 2.4: Underinvestment through an Increase in $u_0$

3. Underinvestment due to a decrease in the desired gearing ratio$^{34}$: In the Steindlian scheme of investment function, gearing ratio also plays a role as shown in eq 2.11. An entrepreneur wants the gearing ratio to remain within desired limits because any increase in gearing ratio is risky for the business. Steindl argues that with increase in the size of the firms, the desired gearing ratio $(g_0)$ starts declining because bigger firms become more risk averse. Therefore, any shift of production away from smaller to bigger firms leads to a decline in investment because the same gearing ratio which might have been considered safe by the smaller firms would not be considered safe anymore. In eq 2.11 in the footnote, one can see that a decline in the desired gearing ratio has a debilitating effect on investment.

$^{34}$ The argument on gearing ratio can not be formally described in the model that we have presented here because we have abstracted from the possibility of gearing ratio as an argument in the investment function.
2.2 THE STAGNATIONIST VIEW

in the economy. And a one time fall in investment, as shown above, leads to a decline in the growth rate because the profit margins do not adjust.

2.2.3 Baran and Sweezy's Monopoly Capital:

Baran and Sweezy (1966) go beyond Steindl's argument of an increase in the profit margin due to the development of oligopoly. They argue that there is an ever present tendency of the surplus to rise over time with the advent of monopoly capitalism and not just a one time increase in the markup as argued by Steindl. Their reason is that there is a dual pressure on the profits\textsuperscript{35} to rise. On the one hand, there is a downward stickiness or rather an upward bias in prices that the giant corporations set in the era of concentration of capital. On the other hand, contrary to the general perception, the struggle for introducing methods or products which reduce the costs of production are as much, if not more, on the agenda of the corporations as it was on their erstwhile competitive counterparts. This happens both with the consumer as well as the producer goods industries.

*Upward Bias in Prices:*

With the advent of monopoly capitalism, the capitalists, instead of being price takers, become price makers because of their growing control over the market. That is not to say that they have absolute freedom to increase the prices but the range of prices that they can choose from increases considerably. The implicit price and cost relations are similar to that described by Steindl in fig 2.2. Given that the firms are in a situation similar to panel(b), price undercutting does not help any of the firms. If there is one firm which is relatively larger than the rest of the firms then it acts as the price leader. Since this firm also happens to be the lowest cost producer, no other firms dares to undercut prices. In other cases where there are a good number of large firms, there seems to be a kinked demand curve for all the firms. If any one firm wants to change its own price while others do not follow suit then this firm has to rescind, otherwise, it stands to lose its market share.

There is, however, an asymmetry in the price changes between upward and downward changes, especially in an oligopolistic set up. While an increase in price by any one firm may, in the worst possible case, lead to a decrease in its own market share, a decline in prices might lead to a full fledged price war. So a decline in prices is considered a taboo while there remains an upward bias

\textsuperscript{35} Profits here are not defined in the narrow sense but they measure the difference between what a society produces and the costs of producing it.
in prices in such a set up. However, they add a caveat that it is not as if that 
aggressive price wars do not at all take place in this phase. In fact, in cases of 
nascent industries where the shares of firms are still to be established, this can be 
one of the weapons that the firms may resort to. On the other hand, the general 
absence of price wars during this phase means not that the firms are content 
with their existing market shares but that the means to achieve it in this phase 
are different.

But there are certain industries which do not fall under this category like the 
natural monopolies or extractive industries and agriculture. Most of the products 
of these industries go as input in other industries and high prices in these would 
amount to a relative decline in the markups of these other industries. However, 
abnormally low profits in these natural monopolies or agriculture, which are not 
in tune with the profits in other industries, also threaten to damage the interests 
of a politically powerful group of landlords etc. In such a situation the state is 
asked to step in to provide transfers in the form of subsidy to bring the profit 
margins within these industries within a certain range of what prevails in the 
other industries.

Thus, in terms of fig 2.2, there is a tendency for the price curve $BP$ to rise or at 
least not to decline both within the industries and for the economy as a whole. 
More importantly, the tendency for the surplus to rise arises from the declining 
costs which we discuss below.

**Downward Bias in Costs:**

Since the basic driving force under capitalism is greater and greater accumulation 
by the capitalists, they try to introduce such methods of production which lead 
to higher productivity of labour that, *ceteris paribus*, decrease the costs. A firm 
with lower costs and higher profits has greater advantages than its high cost 
counterpart because the ‘firm with the lowest costs holds the whip hand’. Since 
this firm would have the highest cushion against any price aggression, it can 
afford to use this cushion to threaten both the existing competitors and new 
entrants to the industry. In every aspect, starting from a price war to aggressive 
advertisement, this firm has higher tenacity to continue in the market. Since 
the market shares themselves in such circumstances are determined more by 
non-price tools like sales effort, such a firm stands a better chance to win in this 
game. That being the case, there is always an incentive for the larger firms to 
not only cut down on costs but to do so at a faster pace than its rivals so that it 
maintains the whip in its hand.
2.2 THE STAGNATIONIST VIEW

There are further disincentives in being a high cost firm because such firms generally tend to become the targets of takeovers by other stronger firms, at times even on unfavourable terms. Baran and Sweezy (1966) argue (p.69) that

Any company which falls behind in the race to cut costs is soon in trouble... it can merge, on unfavourable terms of course, with a stronger firm. The stronger company... is therefore on the lookout for opportunities to buy into industries where a well-managed subsidiary could be expected to carve out a profitable niche for itself. Run-down companies which have been ruined by inefficient management, and the securities of which are often grossly undervalued even compared to the liquidation value of their assets, are ideal vehicles for such expansion programs.

A tendency to cut costs is best exemplified in the producer goods industry, where these goods enter as costs for the rest of the industries. The sellers of producer goods have to constantly woo the buyers by promising an ever decreasing per unit costs which in turn would increase the profits of the other industries. In other words, there is a continuous pressure, in individual industries and therefore in the economy, for the cost curve EC' in fig 2.2 to decline.

These two forces working in the opposite direction would effectively lead to an increase in the profit margin as the area (BEC'D') between these two lines(BD' and EC') would keep on increasing. In equation ??, while the LHS i.e. 'p' would tend to increase, the cost 'wI would tend to decrease, thereby, leading to an automatic increase in the degree of monopoly. They also recognized, like Steindl, that a higher surplus value need not necessarily ensure its realization but that even though it might not get reflected directly in terms of ever increasing actual profits, it definitely gets reflected in terms of ever increasing excess capacity.

Capitalists' Consumption Inadequate to Compensate Underconsumption:

Based on this argument, that there is a tendency for the surplus to rise in monopoly capitalism, they argue that there is a tendency for underconsumption that such an economy encounters eventually. Since a higher degree of monopoly would mean a shift of income from workers to the capitalists, it would automatically lead to a decline in the share of consumption as a proportion of output.

In the extreme case, they argue, even if we assume that capitalists consume all the income that they receive, it still does not compensate for the loss in consumption by the workers. This is so because the capitalists only get a
proportion of profits distributed to them and a substantial proportion of profits is withheld by the corporations as retained earnings. Even though they do not write the consumption function explicitly, one can assume that they are hinting at the following,

\[ C_t = W_t + c\pi \delta \Pi_t \quad \delta < 1 \]
\[ c_t = \frac{C_t}{O_t} = 1 - h + \delta h \quad \therefore c\pi = 1 \]
\[ \frac{\partial c_t}{\partial h} = h \frac{\partial \delta}{\partial h} + \delta - 1 \geq 0 \quad \text{iff} \quad h \frac{\partial \delta}{\partial h} + \delta \geq 1 \]

where,

\[ \delta = \text{part of the property income that gets disbursed} \]

They argue that even if the proportion of profits which gets distributed were assumed to vary with the rising surplus, it would still not solve the problem of underconsumption unless there is a more than proportionate increase in the distributed profits as compared to the increase in surplus (as shown in the necessary condition arrived at in eq. 2.17). In this regard, they argue that most of the corporations have a constant dividend payout rate over longer periods of time. Even if there is an increase in the earnings of the corporations, it does not immediately get passed on to the owners of stocks in the form of increased dividends. The corporations, according to them, pay the dividends with a lag which makes the actual payout rate lag behind the target rate. In such a situation, far from an increase in the payout rate lag behind the target rate. In such a situation, far from an increase in the payout rate with increasing earning, there is actually a decline in it. They further argue that the conclusion would hold a fortiori if the capitalists save a proportion of the received capital income (i.e. \( c_p < 1 \)). Therefore, an increase in the degree of monopoly would always lead to underconsumption\(^{36}\).

2.2.4 Recent Work on the Stagnationist View:

Relationship between distribution and growth was rigorously studied in Economics in the 1950s and 60s after which the interest died down partially. It was

\(^{36}\) As far as the other components of aggregate demand are concerned, they argued that there do exist certain counteracting tendencies, in the form of sales effort, increased government expenditure on armaments etc., to this tendency of underconsumption. Since there is an ever present tendency for the growth rate to decline in the Baran-Sweezy world, these props have to keep increasing to prevent the \textit{ex ante} decline in growth to translate into an actual decline. In other words, in the absence of such props, the steady state rate of growth keeps on decreasing over time till it reaches a level of stagnation for the economy.
revived in the 1980s, especially in the wake of growing inequalities in the advanced capitalist world in the post-golden age period (Dutt (1984)\textsuperscript{37}; Rowthorn (1982); Taylor (1985); Del Monte (1975)\textsuperscript{38}). We would review this literature now and see what new insights they provide to this question.

The most important difference between these later works and the earlier work on stagnation is that the later works have *endogenised* the markup in their models which was exogenous even in Steindl’s model. So, when we were discussing the effect of increase in monopoly power in the Steindlian framework, we were introducing the shifts in the markup from outside the system as a parametric change. Let us now see how this endogeneity of the markup affects the dynamics of the system.

The essence of all these authors broadly remains the same so, we think it prudent to present the arguments of one of them (Dutt (1984)) to show the basic processes at work. These authors also attempt to close the under determined system represented by equations 2.6 and 2.14. Their investment function is also a combination of insights from Kalecki and Steindl but in a slightly different form, where the variables have the same meaning as earlier, as shown below:

\[
I_g = K = a + b\pi + cu, \quad a, b, c > 0
\]  

(2.18)

where,

\[a, b, c\] are constants

The first term ‘\(a\)’ represents the ‘animal spirits’ of the capitalists, while the rate of profit in the second term is a proxy for the expected rate of profit which is a major determinant for investment. The last term is taken from Steindl’s investment function where it is dependent on the rate of capacity utilisation. The desired rate of capacity utilisation of Steindl is subsumed in the first term itself ((Dutt, 1984, p.28)). It is to be noted that this is a linear function in both the rate of profit and capacity utilisation unlike the investment function that we presented above.

\textsuperscript{37} Though Dutt’s work was written with the Indian Economy as its subject matter, we believe that his arguments, in the specified framework would retain its validity even for advanced capitalist countries. Moreover, his later works, for eg. Dutt (1995), are written with respect to advanced capitalist countries.

\textsuperscript{38} Del Monte (1975) had formalised the model on growth and distribution ahead of Dutt (1984) and Rowthorn (1982) but it was written in Italian, as Lavoie (1995) informs.
2.2 THE STAGNATIONIST VIEW

In the short run, the markup and the stock of capital can be taken as given. The investment function can be rewritten as a function of rate of profit alone by substituting 2.6 into 2.18,

\[ g = \frac{I}{K} = a + \left[ b + \frac{c}{h'\beta} \right] \pi \]  

(2.19)

Equations 2.19 and 2.6 can be shown in a diagram where both \( I/K \) and \( S/K \) are shown as a function of the rate of profit. The ex post equalisation of savings and investment gives us an equilibrium rate of profit which in turn determines the capacity utilisation with a given markup (or profit share) as shown in fig. 2.5.

Figure 2.5: Dutt’s Model of Distribution and Growth in the Short Run (Dutt (1984))

If we look at fig. 2.5 more closely, it has a distinctive similarity with fig. 2.3. It seems as if fig. 2.3 has been opened up downward where instead of capacity utilization alone determining the rate of growth, the rate of profit now determines it, which also incorporates the capacity utilisation. Therefore, capacity utilisation instead of being the abscissa for the growth rate becomes the ordinate for the profit rate. The other difference, as noted above, is that the investment function is linear. The stable rate of growth that we see in the figure is nothing else but the lower rate of growth of fig. 2.3. This stable rate of growth \( g^* \) yields a \( \pi^* \) rate of profit which leads to a capacity utilisation of \( u^* \), based on a given profit
2.2 THE STAGNATIONIST VIEW

share \( h \). Had Dutt introduced a non-linear investment function of the Kaleckian variety, he would also have found two rates of growth.

As can be seen from fig. 2.5, an increase in the markup, which increases the profit share, shifts the investment function down because of a decline in the capacity utilisation. The logic is very simple, any increase in the profit share, for a given rate of profit would decrease the rate of capacity utilisation, assuming that the technologically given output-capital ratio is given in the short run. This decline in the capacity utilisation affects the investment function adversely at every given rate of profit. This downward shift in the investment curve leads to a decline in the rate of growth from \( g^* \) to \( g' \), rate of profit from \( \pi^* \) to \( \pi' \) and capacity utilisation from \( u^* \) to \( u' \). There is not only a ‘paradox of thrift’ working here but also a ‘paradox of cost’, whereby any attempt to cut costs would lead to a decline in the rate of profit (Rowthorn (1982)). After solving for the rate of growth from equations 2.6 and 2.19, we get the following rate of growth in terms of the profit share,

\[
\begin{align*}
g^* &= \frac{s_\pi a}{s_\pi - b - \frac{c}{h^b}} \\
\frac{d g^*}{d \mu} &= -a s_\pi \left[ \frac{1}{D^2} \left( \frac{c}{h^b} \beta \right) \right] \cdot \frac{1}{\mu^2} < 0 \\
\therefore \frac{dh}{d \mu} &= \frac{1}{\mu^2} 
\end{align*}
\]

\[ (2.20) \]

This relation between the growth rate and the markup can be plotted as an IS curve in the \((g, \mu)\) plane with the growth rate a negative function of the markup (see fig. 2.6). He assumes that the economy is always in a commodity market equilibrium i.e. the economy is perpetually on the IS curve\(^{39} \). But this gives us only one relation between the two variables.

We have got a negative relationship between the rate of growth and the markup which is exactly the result that Steindl and others had arrived at. But where these new theories differ from the earlier underconsumptionist theories is where they assume endogeneity of the markup instead of changing it parametrically as Steindl did. In such a case, we need another relation between the two variables.

\(^{39} \)This assumption is not too restrictive according to him because it assumes that the output changes far more quickly than the markup. As far as the slope of the IS curve is concerned, it can be calculated by carrying out a second order differentiation of the equilibrium rate of growth, according to which it would be convex to the origin.
to determine the equilibrium values of this system of two unknowns, \( g \) and \( \mu \). To arrive at the second relationship, Dutt tries to look for what determines the markup in the long run and how it is dependent on the rate of growth.

Dutt argues that the time derivative of the markup \( \dot{\mu} \) can be shown to depend on both the markup and the growth rate. Higher growth rates often entail a decrease in the concentration ratio because the barriers to entry are partially lifted and higher profits attract new entrants. It has often been argued that the markup is positively related to the concentration ratio because of the increasing possibility of cartelization. Therefore, the rate of change of markup would be inversely related to the rate of growth, since higher the growth rate, lower the concentration ratio would be. The rate of change of markup, however, is dependent on the level of the markup itself. At lower levels of markup, an increase in the markup would lead to a greater degree of monopoly and the markups can be jacked by the capitalists without worrying much about the possibility of encroachment by new entrants because the level of the markup might itself be too low to attract new entrants. But at very high levels of markup, where there is already a danger of new entrants encroaching the market and reducing the concentration ratios, the capitalists would avoid increasing them further both because they would not want to endanger their market share or invite adverse government action against high collusion. Therefore, there would be a 'critical' level of \( \mu \) below which \( \dot{\mu} \) increases and beyond it decreases. One can write the determinants of time derivative of the markup as follows,

\[
\dot{\mu} = F(g, \mu), \quad F_g < 0, F_\mu \geq 0
\]  

(2.21)

Based on the argument above, we can derive the trajectory of the curve \( \dot{\mu} = 0 \) which would depict another relation between the rate of growth and the markup. It is to be noted that above this curve, the markup decreases while below the curve, it increases. The long term equilibrium can only be reached when both the commodity market and the markup are stabilised, which can happen only in two cases as shown in the figure, points A and B. It can easily be shown that while point A is unstable, point B is stable. The economy, so described would tend to gravitate towards B, i.e. low rate of growth and high markup.

We have shown in this section that there is a range of theories within the Kaleckian tradition under which even an advanced capitalist economy can have excess capacity in the long run. In the presence of excess capacity in the long run, an increase in the degree of monopoly would always lead to a decline in the rate of growth both because of underconsumption and underinvestment. This conclusion is at variance with certain versions of the traditional Cambridge
growth theories (Kaldor (1956) and Pasinetti (1962)), according to which there is a positive relation between inequality and growth. We turn to these theories and their new variants in the next section to show how inequality and growth might be positively related to each other in a framework quite different from the neoclassical one.

2.3 THE EXHILARATIONIST VIEW

As opposed to the stagnationist view, there is another view, known as the 'exhilarationist' view, which argues that there is a positive relation between inequality and growth in the long run. The origins of this view are in classical economics, where it was assumed that there is an inverse relation between wages and profits and that any attempt to depress profits would have an adverse impact on accumulation since savings are incurred primarily by capitalists. More recently, there have been two different streams of economists — who have been interested in resurrecting this classical view — neo-Ricardians and neo-Marxians (as shown in Lavoie (1995)). The essence of their argument is that in the long run, the investment increases with an increase in the profit share because the economy functions at the desired rate of capacity utilisation in the long run.
2.3 THE EXHILARATIONIST VIEW

2.3.1 The Neo–Ricardian and Neo–Marxian Approach

After the publication of Dutt (1984), Rowthorn (1982), who formalised the model of stagnation, a number of articles were published from either a neo–Ricardian or a neo–Marxian perspectives questioning these conclusions. As Lavoie (1995) writes,

Since these positive relations [between equality and growth] go against the classical beliefs that accumulation requires sacrifices and that labour and capital interests are necessarily dissonant, it will surprise no one that some neo–Ricardian and neo–Marxian authors have questioned those implications of the Kaleckian model, on various grounds.

The grounds on which these authors have questioned the stagnationist model have essentially been on the investment function used in these models. Some authors have argued that instead of the current rate of profit, it is the expected rate of profit at normal rate of capacity utilisation that should enter as an argument into the investment function (Vianello (1989); Ciccone (1986); Garegnani (1972); Marglin (1984a)). The essence of their argument can be understood from what Lavoie (1995) has to say about this critique (p.796),

[T]he investment function depends on the (expected) normal rate of profit rather than on the actual rate of profit. The justification for this is that entrepreneurs cannot make future plans under the assumption that capacity will be perpetually over-utilised. Plans must be made according to profitability at normal use of capacity. The rate of profit that represents 'the guiding light for investment and pricing decisions, cannot possibly be either an abnormally high or an abnormally low one'(p. 84, Vianello (1989))

The expected normal rate of profit \( (\pi_n) \) would be driven by the expected profit margin because the capacity utilisation for the calculation of this profit rate would be assumed to be given at its 'normal' rate. Such an investment function can be written as follows,

\[
g = a + b\pi_n
\]

(2.22)

In such a situation, if there is an increase in the markup, it would lead to an increase in the expected rate of profit at normal rate of capacity utilisation which would increase the rate of investment according to eq. 2.22. Thus, instead
of there being an inverse relation between inequality and growth, it is rather positive in the long run.

Marglin (1984a) attempts to examine the relationship between inequality and growth by reinterpreting the Marxian and Keynesian theories in his own framework. He tries to find alternative routes through which the under determined system described in eq. 2.6 can be closed.

In the Marxian framework, he argues, the system represented in eq. 2.6 can be closed by looking at how the rate of profit is determined. He assumes a price equation in a corn world where the wages are paid after the harvest, on the lines of Sraffa (1960). Some amount of corn is required for production of corn next year (given by the inverse of our output-capital ratio) and its price is decided by the equilibrium of demand and supply in a competitive set up.

\[ p = wl + (1 + \pi) \frac{p}{\beta} \]
\[ \Rightarrow \pi = (\beta - 1) - \left( \frac{w}{p} \right) 1\beta \]  

(2.23)

This price equation relates the price of the corn to wage cost \((wl)\), the cost of corn as input \((p/\beta)\) and the profit \((\pi p/\beta)\). It can be seen that for a given technology, the rate of profit is dependent on the real wage rate. Equation 2.23 shows how the rate of profit is inversely related to the real wage rate, given the technical coefficients. This relation has been depicted by the \(WP\) line in panel (a) of fig. 2.7. This provides the second relationship to close the under determined system of eq. 2.6. Since the rate of profit is now given based on the real wage rate decided by the 'conventional' level of the workers \((\frac{w^*}{p})\), one can easily find out the corresponding rate of growth as shown in panel (a) of fig. 2.7.

It can easily be seen that any shift in the income away from wages to profits would mean an increase in the profit rate because of the inverse relation between the two. Thus, an increase in inequality would lead to an increase in the rate of growth.

Marglin writes the following about the relationship between distribution and growth in the Marxian schema (Marglin, 1984a, p.119)

[D]istribution [in the neo-Marxian model] is ... prior to resource allocation: change the conventional wage and both the distribution and the growth rate change; change the propensity to save and only the rate of growth changes. [emphasis added in the first part]
2.3 THE EXHILARATIONIST VIEW

Unlike the Marxian system where the distribution is decided prior to the determination of the rate of growth, he argues that the Keynesian system determines the rate of growth and distribution simultaneously. This simultaneity is derived from the investment function which closes the under determined system of eq. 2.6 by proposing an independent function between the investment and profit rate in the following manner:

\[ \frac{I}{K} = i(\pi) \quad i' > 0 \quad (2.24) \]

We have shown a linear version of the investment function in panel (b) of fig. 2.7. Thus, the first quadrant of panel (b) in fig. 2.7 shows how the rate of growth and the rate of profit get determined simultaneously. This rate of profit in turn determines the real wage rate in the lower quadrant of panel (b). We have also shown a shift in the investment schedule to see what effect does it have on distribution. An upward shift in the investment schedule results in an increase in both the growth rate and the profit rate, which effectively means worsening distribution for the workers according to Marglin’s framework. Thus, there is a positive relationship between inequality and growth even in the neo-Keynesian theory according to him even though here there is a simultaneity between the two rather than a causality from one to the other.

An improvisation over these models is an often quoted paper by Bhaduri and Marglin (1990), which generates both the stagnationist as well as exhilarationist regimes in the same model. The distinction of this model over all the models described so far is that the Bhaduri–Marglin model (hereafter, BM model) does not entail full capacity output so, the capacity utilisation is allowed to vary even in the long run, just as the stagnationist models. This property makes their

Figure 2.7: Marglin’s Interpretation of Marxian and Keynesian Growth Theory

![Figure 2.7](image-url)
2.3 THE EXHILARATIONIST VIEW

model especially interesting since they attempt to show that a rise in the profit share could result in an increase in growth rather than a decline in it as the stagnationist school suggests.

The increase in real wages can be looked at from two different perspectives as they argue (p.375, Bhaduri and Marglin (1990)),

Variations in wages have two-sided role in industrial capitalism. Higher wages mean higher costs of manufacturing, but by providing more purchasing power to the workers they also stimulate demand. In its contradictory role as the main element of (variable) production cost and a major source of demand, movement in the wage rate has a complex, even ambiguous, effect on the level of employment and output. [Emphasis added]

To incorporate these ‘two-sided’ role of wages, BM model seeks to change the formulation of the investment function (eq. 2.18) of the stagnationist variety. They say (p.380) that ‘[t]he problem with this procedure [depicted in eq. 2.18] is that it imposes unwarranted restrictions on the relative response of investment to the two constituents of the profit rate, \( h \) and \( z \) [\( u \) in our terminology] with the result that the profit led expansion is ruled out.’ To solve this problem, they propose the following investment function,

\[
I = I(h,u); \quad O^* = 1; \quad I_h > 0, I_u > 0
\]

(2.25)

This investment function, according to them, has the advantage of separating the demand from the finance side. Here, the demand side effect is captured by the capacity utilisation where any increase in the real wages is translated into an increase in the rate of capacity utilisation due to an increase in the consumption demand. The same increase in real wages has an adverse impact on the profit margin which affects investment adversely. An increase in the real wages can have an ambiguous effect on the total output since out of the ‘two ways’, one is expanding and the other is contracting. It can be shown in equilibrium (after normalising savings and investment with \( O^* = 1 \)) that,

\[
s \pi h u = I(h,u)
\]

(2.26)

which in the \((u,h)\) space would generate the following slope,

\[
\frac{du}{dh} = \frac{I_h - s \pi u}{s \pi h - I_u}
\]

(2.27)
2.3 THE EXHILARATIONIST VIEW

where,

\[ s_n h - I_u > 0 \quad \text{Keynesian Stability Condition} \]

\[ \Rightarrow \frac{du}{dh} \geq 0 \quad \text{if,} \quad I_h \geq s_n u \]

This last condition is what distinguishes a stagnationist regime from an exhilarationist regime in their model. They argue that when investment responds to changes in the profit margin more strongly in comparison to savings, capacity utilisation increases even with an increase in the profit share (margin), which they call the 'exhilarationist' regime. In this regime, if we may use the term, 'profit push' overcompensates the underconsumptionist tendency\(^{40}\). In the opposite case, when savings is more responsive, then the capacity utilisation decreases with increase in the profit margin, which they call the stagnationist regime. Thus, they argue that one can assimilate both the stagnationist and the exhilarationist arguments in the same model without resorting to the full capacity assumption.

They argue further that at low rates of capacity utilisation, increases in profit margins would fail to induce increase in investment because of the presence of high idle capacity, thus necessitating a stagnationist regime at lower levels of capacity utilisation. As opposed to this, at higher rates of capacity utilisation, entrepreneurs may enthusiastically respond to changes in the profit margin, thus leading to an exhilarationist regime. If this is true, there would lie a critical value of capacity utilisation \( u_c \) where the sign of the IS curve would reverse in the \((u,h)\) space as shown in fig. 2.8.

According to them, the assimilation of the two regimes helps in reconciling contesting political ideologies (p.388).

Particular models such as that of 'cooperative capitalism' enunciated by the left Keynesian social democrats, the Marxian model of 'profit squeeze' or even the conservative model relying on the 'supply–side' stimulus through high profitability and a low real wage, fit into the more general Keynesian theoretical scheme. They become particular

\(^{40}\) We would come to a more substantial critique of this model in the next section questioning the basis of inclusion of the profit share as a determinant of investment. But it would suffice here to say that even with their reasoning, the responsiveness of investment function to profit share should depend on the elasticity of expectations in wages and prices. If say a fall in wages is expected to be a temporary event then such a decline should not prompt any increase in investment on account of increase in the profit margin, which is itself temporary. Thus, even within their own framework, one cannot talk about the respective partial derivatives without taking the price and wage expectations into account.
Blecker (1989) extends the logic of exhilarationism to an open economy. He attempts to find reasons for why despite an increase in the wage share after the mid-to-late 1960s, the US economy faced 'stagflation' instead of a consumption-led growth. He argues that this phenomenon should not be interpreted as a revival of some sort of the conclusions of the 'classical' theory but that these stylised facts can be reconciled into a Keynesian framework itself by opening up of the economy to foreign price competition. Foreign competition would 'open up the possibility of an inverse relation between the wage share and the accumulation rate'. This is so because an ever increasing pressure on real wages by the workers of a country would jeopardise the competitive position of the capitalists of this country in the international market as their products would be relatively high priced. Thus, what the economy might gain due to consumption-led growth may be more than compensated by a profit squeeze and a worsening trade balance. The difference between the closed economy case and an open economy is that in the former, the entire increase in wages could be passed on in the form of higher prices to the consumers. In the case of an open economy, however, this is greatly limited by international competition, thereby inevitably
resulting in a profit squeeze. He argues that this process could ‘capture the problems facing mature capitalist economy which goes from being relatively closed to relatively open, such as the United States in the 1960s and 1970s’.

The stagnationist approach has come under attack from another quarter. In this argument, the steady state capacity utilisation in the long run can not be anything but the ‘normal’ or the ‘desired’ degree of capacity utilisation (Auerbach and Skott (1988); Committeri (1986)). (Auerbach and Skott, 1988, pp.52–53) argue, utilization rates are likely to fluctuate around the optimal level. Output adjusts very much faster than the capital stock to variations in demand, and, indeed, the level of investment may be taken as largely predetermined in the short run. In the long run, however, investment is induced. If, say, firms find themselves persistently with less capacity than desired then the rate of accumulation will eventually accelerate. The long run investment function will thus be very sensitive to deviations of u from its desired level, \( u^* \) [\( u_0 \) in our terminology], and a steady growth path with \( u \neq u^* \) is ruled out.

... [I]t is inconceivable that utilization rates should remain significantly below the desired level for any prolonged period. The long run average value of \( u \) thus cannot deviate far from \( u^* \) and if \( u \) fluctuates around \( u = u^* \) then \( \pi \) and \( g \) will fluctuate around \( \pi = \pi^* \) and \( g = g^* \). Secular profit squeeze and stagnation thus require that \( \pi^* \) and \( g^* \) decline. [Emphasis added]

Thus, according to them, the economy functions at the ‘desired’ rate of capacity utilisation \( (u_0) \) in the long run. Given that this is the case in the long run, they establish an inverse relation between increase in the real wage and the growth rate. Any increase in the real wages would mean a decline in the profit margin and assuming that the long run rate of capacity utilisation is constant at the desired rate, it would lead to a decline in the rate of profit and thus in growth rate.

It is clear from the presentation of the variants of the exhilarationist view that they can broadly be categorised under two groups: those which assume normal

---

\[41\] This logic runs counter to the argument put forth by Harrod. In fact, it is like standing Harrod on his head. The central argument of the knife-edge stability is that in the event that the rate of capacity utilisation is less than what is desired, the capitalists want to raise the level of capacity utilisation by reducing the level of capacity addition through investment, which decreases the rate of capacity utilisation for the economy even further. They are arguing exactly the opposite. We would present in details the critique of this argument in the next section.
capacity utilisation in the long run and those which assume the investment function to depend on profit margins too along with capacity utilisation.

Having surveyed all the variants of both the stagnationist and the exhilarationist models, we would now like to present a critique of both these versions along with the neoclassical argument in the next section.

### 2.4 A CRITICAL APPRAISAL

We would divide our critique in three parts exactly on the lines of the division of the existing literature on the relationship between concentration, distribution and growth presented above. We believe that though there could be some important elements in all these approaches, they do not explain the experience of the US economy since the 1980s adequately. We present below why these approaches are inadequate and what corrections need to be made to explain the recent US experience in this regard.

#### 2.4.1 A Critique of the Dominant Approach

Let us recapitulate briefly the essence of the arguments dominant in the economics literature at present which find a positive relation between inequality and growth. The common thread that binds all these arguments presented in section 2.1 is that they all argue from the supply side. These arguments can broadly be divided into three categories based on the different perspectives; one argument says that concentration enhances efficiency, the other says that inequality reflects inherent differences in ability and the third says that in the presence of credit market imperfections and indivisibilities in investment inequality is a prerequisite for growth. It is the first category that has been the centre of debate as far as takeover markets and their effects are concerned so we concentrate our critique on this category primarily. According to them, because of agency costs, the managers were not working in the interests of the shareholders, so, there was a need for an external market for corporate control. The takeover market of the 1980s and 90s provided such a market which could discipline the erring managers and increase the efficiency and growth of the US economy. We think that this approach can be questioned on a number of grounds.

Were technological factors or inefficiencies the reason for the pervasive excess capacity?: We need to examine the reasons for the generation of large excess capacity in the US since the mid-70s. Excess capacity generation since the mid-1970s was
not driven by technological advances\textsuperscript{42} alone. The excess capacity can result both from a decline in demand or due to an increase in potential supply of commodities due to technological advances. These two routes are, however, very different from each other. The financial economists are arguing that it is the technological route due to which the pervasive excess capacity resulted in the US. If the excess capacity was unrelated to the demand-side factors, then there should have been an increase in the output-capital ratio in the US economy\textsuperscript{43}.

What we find in the US economy during this period is that, the technologically given output capital ratio for the private sector after increasing between 1957 and 1967, in fact, decreased between 1967-87 and only recovered in the 1990s. Even for the real output-capital ratio, the story is more or less the same except that it did not decline between 1967-77 but thereafter. The point is very simple that the technologically given output-capital ratio did not increase for the private sector at all. Thus, the pervasive excess capacity since the mid-70s has to be located elsewhere. We believe that the reason for this is a decline in demand in the economy in general after the end of the golden age, especially after the 1960s.

The extensively discussed agency theory also does not appear tenable. The generation of inefficiency though investments in projects with negative NPVs could not have been more than otherwise existed. If the same corporate structure of separation of managers and owners could produce a golden age lasting for about two decades not only in the US but for the entire advanced capitalist

\textsuperscript{42} Gordon (2000), while contesting the argument of the new economy enthusiasts, maintains a healthy skepticism about the growth in productivity in the late 90s:

The true enthusiasts treat the New Economy as a fundamental industrial revolution as great or greater in importance than the concurrence of inventions, particularly electricity and the internal combustion engine, which transformed the world at the turn of the last century...

[T]he productivity revival [of the late 90s] appears to have occurred primarily within the production of computer hardware, peripherals, and telecommunications equipment, with substantial spillover to the 12 percent of the economy involved in manufacturing durable goods. However, in the remaining 88 percent of the economy, the New Economy’s effects on productivity growth are surprisingly absent, and capital deepening has been remarkably unproductive. [emphasis added]

\textsuperscript{43} This can be seen from our basic savings-investment equality equation.

\[
\frac{I}{K} = s_n hu^\beta
\]

Since the causality runs from the left to the right, any decline in capacity utilisation \(u\) (or an increase in excess capacity) can occur in two different ways. It could take place either due to a decline in demand or due to an advance in technology unmatched with an increase in demand. The second route should witness an increase in the technologically given output-capital ratio \(\beta\), which, with investment given autonomously, would lead to a decline in \(u\).
block, what was so different structurally in post the golden age that it became inefficient? Scherer (1988) correctly argues (p.70),

The "separation of ownership and control," though increasing over time, was found by Berle and Means to be widespread among large U.S. corporations during the 1920s. If managerial deviations from profit maximization were already commonplace then, how can one explain the strong performance of the U.S. industrial economy during the 1950s and 1960s, before efficiency-restoring tender offer takeovers came into vogue? Also, the tender offer takeover phenomenon is both new and almost uniquely Anglo-American. If takeovers are necessary for efficiency, how have nations such as Japan, West Germany, Switzerland, and France continued to perform strongly, even though hostile takeovers are practically nonexistent there, and stock ownership is often separated from managerial control, as in America and Great Britain? The questions are rhetorical, for no satisfactory answer has been forthcoming. [Emphasis added]

Moreover, the logic of managers investing in projects of increasing capacity even when there is always excess capacity leads to an unrealistic investment function. Clearly the managers would not be interested in increasing the capacity in the presence of excess capacity even if they are interested in increasing the sales of the corporation (over and above the rate of growth of the industry) because market share is not entirely in the hands of the corporations in the strict oligopolistic setup of contemporary corporate world. Thus, such an investment strategy would not fetch them higher sales at any rate, thereby, negating the very argument put forward by the financial economists.

We believe that the generation of excess capacity in the post-golden age period was not due to inefficiencies or major technological advances (incidentally both are supply side arguments). Instead, it was rather a result of a decline in the aggregate demand stemming from a shift in orientation from the Keynesian

<table>
<thead>
<tr>
<th>Table 2.1: Technologically given Output–Capital Ratio for the Private Sector in the US</th>
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<tr>
<td>$\tilde{O}/K (= \beta)$</td>
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<tr>
<td>Real $\tilde{O}/K$</td>
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Note: The actual output–capital ratios have been divided by the rate of capacity utilisation to arrive at the potential/technologically given output–capital ratio. Source: Actual Output–Capital ratios from Wolff (2003), Author’s Calculations
demand management to more of a neo-liberal economic policy regime. This transition was facilitated by the accelerating inflation starting in the early 70s which gave the impression that the economy is hitting the supply barrier. For the argument that follows, however, the existence of excess capacity itself is sufficient to prove why takeovers may not necessarily be efficiency enhancing in the macroeconomic sense of the term even if they are efficiency enhancers at the micro level.

*Takeovers might not necessarily increase efficiency macroeconomically:* The explanation that pruning of the industry helped allocate scarce resources optimally, from low to high profitable avenues, which in turn increased productivity is also flawed. Objection to this argument is not merely because such a transfer itself is in doubt. Presence of excess capacity in all the lines of production itself is an indicator of the lack of aggregate demand, in which case a transfer of resources of this sort might not even lead to the utilization it was hitherto put to. An example would suffice; suppose there is a plant which was being sub optimally used before the merger by a non-profit maximizing manager. After the merger, however, the plant might be closed down altogether in the face of lack of aggregate demand. The problem with this line of argument is again the assumption of full utilization of resources throughout. Problem of lack of demand cannot be tackled by further curtailing investment expenditure.

Let us look at the efficiency argument a little closely. An increase in efficiency could mean that for a *given* vector of inputs, there would be an increase in the vector of outputs. But one can also find an increase in efficiency if a *given* vector of *outputs* can be produced by a strictly smaller vector of inputs. There would be a great deal of difference between these two routes at the macroeconomic level especially if an economy is faced with a lack of demand. While both the routes are efficient at the micro level, the second route might be macroeconomically inefficient. For an individual capitalist, it might seem prudent to cut down on costs and increase efficiency by decreasing the vector of inputs to produce the same vector of output but this decline in costs itself, in the absence of counteracting forces, could lead to a decline in demand at the macro level if all the capitalists pursue the same strategy. We may use a term used by Rowthorn (1977) i.e. 'paradox of cost' on the lines of paradox of thrift.

Therefore, the efficiency argument might have been valid if the economy was functioning at full capacity and the resources were scarce.

*Does the strategy of 'downsize and distribute' increase efficiency and growth?* The basis for the argument in favour of downsizing and distributing dividends to the 'real' owners i.e. shareholders is that the share markets allocate funds in the most
efficient manner and that the share prices reflect the actual profitability/efficiency of the corporations. Efficiency of the stock market has been questioned by many authors so we are not going into the details of this argument. One can safely say that there is a possibility that there could be a sizeable amount of speculative gain underlying the increase in stock prices. This possibility increases further in the presence of institutional investors who can influence the policies of the dividend distribution of companies and thus influence even the prices of stocks to some extent. Therefore, it might not necessarily be true that an individual shareholder by investing his dividend, which he retrieves from a supposedly non-performing company (i.e. having a lower price-earnings (P/E) ratio), in a company with higher P/E ratio would be transferring the money from a strictly inefficient use to a more efficient use. If the prices of the latter are inflated due to speculative reasons, such a transfer at a large scale may fuel even more speculation on that stock.

It is, however, possible that an increase in the dividend pay out ratio may increase the demand through an increase in consumption of these dividend holders. We explore this possibility in the consumption function that we develop in the next chapter. It is to be noted, however, that this route is entirely different from the efficiency argument.

Restructuring and growth—Wasn't the timing wrong?: The biggest factor in favour of this dominant strand is that the restructuring of the US economy resulted in a 'fabulous decade' of high growth since the mid-1990s. But the question remains that if the restructuring had started way back in the early 1980s, why did it take more than a decade and a half for it to take effect in the US economy?

As far as increasing competitiveness of the US economy in the international market as a result of this restructuring is concerned, we believe that it would be implausible to argue on these lines. The trade deficit of the US has not only been increasing over these two decades, it has also grown to alarming proportions threatening to depreciate dollar, which could potentially threaten its monopoly as an international currency. Even the composition of the exports and imports have not changed to show either a growing proportion of manufactured goods are being exported from the US or that the dependence of the US economy on manufactured goods' imports has decreased any further than what it was before the restructuring began.

This argument, namely that this massive restructuring has played a central role in enhancing growth, is often supported by the fact that it is only the US economy which has experienced such a high growth in the 1990s. While other advanced capitalist countries have either not witnessed any such spurt in growth or have
practically stagnated. This leads us to ask could this growth not be primarily a consumption-led boom fuelled by wealth effects and credit-led expansion in consumption? It is possible that the financial structures of other advanced countries are such that the effect of stock market booms on consumption is limited because the wealth effect in these cases is more narrowly circumscribed. This could simply be due to the fact that the stock market booms in these countries were less pronounced than the US. At this stage, one can speculate on these lines because it is consumption in the US which has been increasing at a drastic rate as a proportion of GDP, exactly parallel to the restructuring wave of the 8os and 9os. We will explore these possibilities in the next chapter.

Absence of an Investment function: A central critique of the supply side approach is the absence of any investment function in their growth story. In other words, it is savings which decide investment. We are back in a world of Say's law, in which supply creates its own demand and not the other way round. It can be seen that for the validity of all the arguments made above, including the one about efficiency, there has to be an undercurrent of applicability of Say's law. This, we believe, is an implausible assumption to make.

The divergence between full capacity savings and investment is inherent to the functioning of a capitalist system, both in the long run as well as in the short run, since investment as an activity, by its very nature is crucially dependent on the expectations of the entrepreneurs. This divergence, however, would not have existed if it could be shown that the investment behaviour of the entrepreneurs is such that in the long run it tends to stabilise at the desired rate of capacity utilization ($u = u_0$). In fact, one could see that out of the two rates of growth which are generated in a Kaleckian growth model that we analysed above, it is the higher rate of growth which corresponds to the neoclassical equilibrium rate of growth. And we have already shown that if we assume a plausible investment behaviour for a capitalist economy where there is fundamental uncertainty, then the higher rate of growth, despite being steady, is ‘ephemeral’ because of its instability. As (Sen, 1970, p.23) argued in the introduction to his book on Growth Economics,

> [there is] a crucial difficulty with the neoclassical model of growth, viz. the absence of an Investment function and the consequent failure to assign a major role to entrepreneurial expectations about the future.[emphasis added]

For all these reasons, we would like to argue that the supply-side explanation of a positive relation between inequality and growth is incorrect.
A CRITICAL APPRAISAL

2.4.2 A Critique of the Stagnationist Argument

As shown above, the stagnationist view attempts to establish a negative relation between concentration and growth. An increase in the share of profits as a result of an increase in the markup following greater concentration in the industry leads to a decline in aggregate demand through consumption. This happens because the workers have a higher propensity to consume. The 1980s and 90s should be the best test for this hypothesis since inequality and profit share increased during this entire period along with two massive concentration waves. Does the share of consumption in the GDP decrease as a result of this increase in inequality? If not, then what could be the reason for the divergence between theory and reality?

![Figure 2.9: Consumption as a proportion of the GDP and the Gross Profit Share in the United States 1950-2007](image)

Source: BEA, Author’s Calculation

The most puzzling aspect of this view is, that, despite the two massive concentration waves in the last two decades of the twentieth century, the share of consumption as a proportion of GDP has risen drastically instead of declining, contrary to the postulates of the underconsumptionist theory (see fig. 2.9).

This divergence between data and theory can be interpreted in two different manners. One could either argue that the theory itself is incorrect or that there might be some aspects of the consumption behaviour which were not
incorporated in the theory. We would like to take the latter position since we believe that the basis for a possibility of underconsumption is correct i.e. the consumption propensities do differ between the rich and the poor. *Ceteris paribus*, in a demand constrained system, this would lead to a decline in the share of consumption as the profit share increases\(^{44}\).

If we concede this point to the stagnationists that the consumption share is inversely proportional to the profit share or inequality then how does one reconcile the parallel movement of the two variables during the 1980s and 90s in the US. It is our contention that, it is because the underconsumptionist school underestimated the counteracting tendencies within the consumption function, which are linked to concentration, which led them to conclude unequivocally that there is a tendency for underconsumption with an increase in concentration. There could be at least three counteracting tendencies that could not only nullify the effect of underconsumption but even overcompensate it and result in an overconsumption, as happened in the US.

First, the absence of wealth effect altogether from their consumption function overestimates the effect of underconsumption. As we discuss in the next chapter, consumption is not only a function of the present stream of income, consisting of wages or profits, but also of the wealth that accumulates over the years. The counteracting potential of the wealth effect would be high if the increase in wealth is enormous, which, indeed, was the case for the US. Thus, even though the propensity to consume out of wealth might be low, the sheer increase in its size relative to the GDP could pump in extra consumption demand large enough to compensate for the underconsumption.

Second, it is not the total profits that should enter the consumption function but only that part of profit that gets distributed (as Baran and Sweezy (1966) hinted at but did not write explicitly) to the owners of property income, therefore, allowing for the property income distribution policy of the corporations to play a role in determination of the consumption of the capitalists.

\(^{44}\) The inverse relation between profit share and consumption share, in the absence of counteracting forces would *de facto* exist in a demand constrained system. This would be so if not for anything else, then at least for the reason that only a proportion out of profits are paid out as dividends while wages are paid out in total. It can be seen that, even at the cost of being unrealistic, if we assume that the capitalists, like workers, consume all the distributed profits (\(\delta \Pi\)) they receive, the share of consumption would still move inversely with the profit share,

\[
\begin{align*}
C &= W + \delta \Pi, \quad \delta < 1 \\
\frac{C}{O} &= c = (1 - h) + \delta h \\
\frac{dc}{dh} &= \delta - 1 < 0
\end{align*}
\]
Third, in the era of 'easy' credit, there is a possibility for the consumers to go beyond the limits set by their current incomes. The introduction of credit cards, easy monthly installment schemes and other such financial innovations of the late twentieth century could partially break the barrier of indivisibility that might exist at least in consumption goods. It can be seen that the consumer durables, to some extent like the capital goods, have indivisibilities to differing degrees. Earlier a consumer could not buy an expensive consumer durable because he had to pay the amount in lump sum and one had to have income level high enough to cross this barrier set by the indivisibility of the consumer durable. Nowadays, these goods have been made 'divisible', so to say, by the introduction of easy month installment schemes. That is, however, not to say that the 'principle of increasing risk' has disappeared or that size does not matter.

In terms of setting up an establishment, say an industrial unit, it is still biased in favour of the wealthier classes and the indivisibilities have not gone away to that extent. On a smaller scale of consumer durables, we believe, these financial innovations have played a crucial role in the consumption splurge that the US has witnessed recently. It is true that the increase in consumption as a result of this route would by nature be ephemeral since in the long run, the credit taken by the household would ultimately be tied to their income levels. So, the sudden increase in consumption due to this route would be transitory in nature since eventually this behaviour would even out. There is, however, another caveat that this 'easy' credit should not be taken to mean that the consumption level of the poorest of the households has increased in the US. In fact, as we show below, it is the middle and the richer classes who have really indulged in a consumption spree. This is so because even though the indivisibilities might have been relaxed by the introduction of new financial innovations, they have not totally ruled out the requirement to have a minimum credit worthiness to avail of these facilities. We would tackle this issue in detail in the next chapter.

One can see that, if we introduce these elements into the consumption function, it is possible that the tendencies of underconsumption would get overshadowed. How sustainable such an increase in consumption would be in the long run because of its financial repercussions is a different matter.

2.4.3 A Critique of the Exhilarationist Argument:

This argument can be broadly classified into two categories: those that assume normal capacity utilisation prevails in the long run (Vianello (1989); Marglin (1984a); Auerbach and Skott (1988)) and those who argue that even if capacity
utilisation is variable, the investment function is more responsive to profit margins than capacity utilisation beyond a point (Bhaduri and Marglin (1990)). We would like to present a critique of both these perspectives.

Does the economy function at the desired capacity utilisation in the long run?: All the models which assume that the economy functions at the ‘desired’ rate of capacity utilisation are in effect discounting the demand problems in the long run, even though acknowledging them in the short run.

Lavoie (1995) (p.804) writes that according to Committeri, a divergence between actual and desired rate of capacity utilisation in the long run ‘cannot be a consistent solution: in a proper steady-state model, expectations of sales growth and of spare capacity should be realised’ (emphasis added). But none of these theories explain why would it be necessary for the economy to be at the desired rate of capacity utilisation even if we are analysing a long-run equilibrium except for assertions of ‘consistency’. A model, as we argue below, can still be consistent with steady state rate of growth in the long run without it being at the desired rate of capacity utilisation. These theories also do not provide plausible reasons as to how would the desired rate be maintained in the long-run? In other words, why would the Harrodian knife edge disappear in the long-run unless we assume desired capacity utilisation in the long-run?

According to Auerbach and Skott (1988), the entrepreneurs would not keep any undesired excess capacity in the long-run because it is ‘inconceivable’. They attempt to provide reasons for how it is maintained. The investment function, according to them, would be very sensitive to the deviation of the actual capacity utilisation from the desired rate i.e. any decline in the actual rate below the desired rate would increase the investment and vice versa. Though the stability of such an investment function is not in question but its plausibility is. Why would the entrepreneurs invest more when they find that their long-run capacity utilisation is less than the desired rate and vice versa? Even if some one did invest more, the other investors in the face of undesired excess capacity would curtail investment and the entrepreneur increasing investment would be worse off. Would it not be prudent for the entrepreneurs to invest less when they find that the existing rate of capacity utilisation is less than what they had desired? In the presence of undesired rate of capacity utilisation, why would the entrepreneurs further add to the capacity even if the present capacity utilisation is less than the desired rate. The confusion arises because the ‘desired’ rate of capacity utilisation is often misunderstood. ‘Desired’ rate of capacity utilisation does not mean that the capitalists can increase or decrease their actual capacity utilisation in their individual capacity to reach to the desired level. The actual rate of capacity...
utilisation in the economy is given by the level of aggregate demand whether we are in the long or the short run. In other words, the realisation problem for the economy lies outside the hands of individual capitalists and it is simply not in their hands to make the desired rate of capacity utilisation realised and even though they can influence the aggregate demand collectively as a class, they do not take investment decisions as a class.

Another argument that has often been advanced for the economy settling at the 'desired' rate of capacity utilisation in the long run, is that the advanced capitalist nations have not witnessed a Harrod-style knife edge problem of either accelerating growth or decelerating growth around the warranted rate of growth. In fact, they have grown at a fairly decent rate in the long-run with a fairly high rate of capacity utilisation. A very powerful argument in this regard has been provided by economists studying the effects of colonialism on the economy of the colonisers. Patnaik (1997) argues that while the advanced capitalist economies have functioned at fairly higher rates of growth for longer periods of time in history, it does not mean that they do so on their own. Advanced capitalist countries have been able to maintain 'desired' rate of capacity utilisation precisely because of the presence of potential markets for manufactured goods in the peripheries. If the peripheral economies have a 'reservoir' of demand for manufactured goods from the advanced economies, where the capitalists within the peripheries especially have a preference for imported manufactured goods, then the capitalists of the advanced economies can clearly be rest assured that their goods would be sold. In that case, their actual rate of capacity utilisation would always be equal to the desired level. That does not mean that the advanced economies would have to maintain an export surplus to maintain the desired level of capacity utilisation. It merely means that the presence of potential markets seeks to fulfill their expectations that enters their investment function. In case the actual capacity utilisation fell below its desired level, the capitalists of the advanced economy can easily export the shortfall to the periphery, financed by appropriate credit. In the event of an increase in the actual rate, they can just cut down on the exports to maintain the desired level of capacity utilisation.

We believe that there could be another route through which the advanced economies can function at high rates of capacity utilisation. We have already shown above in the growth model developed along Kaleckian lines that it generates two rates of steady state growth, the higher of which is unstable which corresponds to the Harrodian warranted rate of growth. The lower rate of growth, however, is stable and moreover, it can be increased by introduction of an expansionary fiscal policy measures and a positive external trade balance. Thus,
an economy in long-run equilibrium can function at a capacity utilisation lower than the desired rate while producing a high enough growth rate depending on the demand management policies. This point can be further buttressed by the fact that the average rate of capacity utilisation in the US has suffered a long-term decline in the post-golden age period. Now if the average rate of capacity utilisation had at least been normal in the long-run then there should not have been a decline in its average (see fig. 2.10).

![Graph showing capacity utilisation](image)

Source: FRB G.17 Release

Figure 2.10: The Rate of Capacity Utilisation for the Manufacturing Sector and the Entire US Economy

**Does the investment depend on profit margins?** The other strand of exhilarationist argument follows from Bhaduri and Marglin (1990). Their model is particularly interesting because it does not abstract away from the possibility of variation of the capacity utilisation from the desired rate and yet produces an exhilarationist regime. The trick lies entirely in their investment function as they themselves acknowledge that a traditional investment function of Kaleckian–Steindlian variety (as used by Dutt (1984) or Rowthorn (1977)) would not produce the exhilarationist regime because it does not use two different constituents — markup and capacity utilisation — of profit rate separately as arguments.

They write (p.392),

In defense of the investment function [as given in 2.25]..., it was pointed out that the rate of profit, \( r \), is a problematic concept as
an argument entering the investment function, because, ... the two constituents of $r - h$[profit share] and $z$[capacity utilisation] — can move in opposite directions to maintain the same profit rate... Since the same rate of profit can be associated with either a low profit margin/share ($h$) coupled with a high degree of capacity utilisation ($z$) and vice versa, it neglects the important economic possibility that the response of investment to profit margin/share, captured by the magnitude of the coefficient $I_h$, may be influenced significantly by the existing degree of capacity utilisation.

It is quite clear that if it can be established that the introduction of the profit margin as an argument into the investment function is implausible, one is back into the stagnationist world. There have been at least two such criticisms of this model along these lines (Lavoie (1995) and Bose (2004)). Such a criticism has also been made because the BM model has been extensively used to justify the decline in the growth rate of the advanced capitalist countries in the 1970s. We present their basic argument against the introduction of profit margin as a determinant of investment.

First, an increase (decrease) in the profit margin might be no indicator of the rise (fall) in the profit rates because the rate of profit also depends on the capacity utilisation and on the rate of investment itself(Bose (2004)). Moreover, an increase in the margin might just be a result of an increase in the rate of interest and not an indication of increased profit rates because 'the interest rate determines the markup of prices over nominal wages' ((p.282, Pivetti (1988)) quoted by Lavoie (1995)). Second, it is the rate of capacity utilisation which is a more important variable because sales can rise far from $r$, as a result of increase in demand, than installation of capacity. This increase in capacity utilisation would increase the animal spirits of the entrepreneurs, independent of the fall in the profit margin, especially since they are faced with fundamental uncertainty (Lavoie (1995)).

Third, investment as an activity is an act of adding capacity, by investing in capital goods, to the already existing capacity. Thus, it is highly likely that the actual capacity utilisation plays a central role in determining investment with profit margin playing hardly any role. If we consider two situations, one with low $\mu$ and high $u$ and the other with high $\mu$, low $u$, both yielding the same rate of profit, it is undoubtedly the first which would generate a high rate of investment. This is so because the entrepreneurs would not like to add to capacity when the capacity utilisation is already low even if the margins are high and at higher $u$, they would have anyway invested more whether or not the margins were high. Therefore, it is the rate of capacity utilisation which would call the shots, a low $u$
2.4 A CRITICAL APPRAISAL

Source: US Flow of Funds Accounts

Figure 2.11: Gross Investment, Savings and Net Lending Rates for the Non-Financial Corporations in the US

dissuading investment and a high $u$ enhancing investment, irrespective of the profit margin. A high profit margin does not necessarily enhance investment neither does a low margin dissuade investment if $u$ is high. The rate of profit, unlike the profit margin, can still be considered to be a determinant of investment like Dutt (1984). The rate of profit is an indicator both of internal funds available for investment and of the level of demand. This problem of finance decreases as the size of the firm increases, as we shall discuss in the next chapter. As far as indicator of the market and future expectations about it are concerned, the rate of capacity utilisation serves the purpose quite well. Thus, the rate of profit devoid of its role as an indicator of demand itself plays a limited role since it is more important for supply constrained firms (generally smaller ones) and with increasing concentration, the percentage of such firms contributing to the overall investment keeps decreasing. When the magnitude of the coefficient of profit rates itself in the investment function might go down, the profit margin would surely not be a determinant of the investment especially since it is at any rate not an indicator of the rate of profit necessarily.

Fourth, if indeed there is an exhilarationist regime then why did the investment climate not recover in the US in the 1980s when the profit margins had recovered (Bose (2004)). As Bose writes (p.39), 'the fall in the profit margin cannot be the
proximate cause for either a fall in the rate of profit or a slowdown in investment. The regime of over accumulation is a non-starter.’ This point would be clearer if we present some recent data for the non-financial corporations in the US who have become net lenders in the market flushed with funds but lesser avenues to invest (see fig 2.11). It can be seen from the figure that the non-financial corporations in the US, on an average, who have been net borrowers all this while, have suddenly become net lenders since 2000 because their internal savings have far surpassed their real investments. For those believing in exhilarationism, it would be difficult to explain why despite an increase in the profit margin for good seven years, it did not provide a boost to investment.

For all these reasons, we believe that the choice of the investment function in the BM model is implausible. If the profit margin is removed from the investment function then stagnation is back into the BM model with excess capacity possible even in the long run.

2.5 Conclusion

The question of distribution and growth has been fraught with controversy in the history of economic thought. Though a lot of studies have looked at the linkage running from growth to inequality, our purpose was to look at this question the other way round i.e. the effect of distribution on growth. One can say that, as far as the end results are concerned, the existing literature on this issue can be divided into two categories, one arguing that inequality leads to stagnation and the other arguing that inequality enhances growth.

Within the second category, we have arguments from two opposite spectra of the economic divide. The current dominant strand in economics on this issue draw their argument from the premise that inequality is good because it creates incentives for individuals to perform to the best of their abilities and any attempts to redistribute resources would cause distortion to the efficient market structure. It is with this perspective of efficiency that they have argued that the corporate restructuring of the 1980s and 90s produced good results in the form of high growth in the US economy since the mid-1990s.

The other spectrum within this category, however, argues that in the long run, the economy functions at the desired rate of capacity utilisation so the rate of growth is determined by the normal rate of profit which would increase or decrease accordingly as the profit margin increases or decreases because the rate of capacity utilisation gravitates to its normal rate. Thus, an increase in the profit
margin would give impetus to the rate of growth whereas a decline in it would lead to a profit squeeze.

The other category is the stagnationist school, according to which a shift of income away from wages to profits leads to a decline in consumption because the consumption propensity of workers is higher than that of capitalists. Such a decline in consumption leads to a decline in the growth rate since investment itself declines in the wake of a decline in the rate of capacity utilisation.

But we believe that none of the three theories explain the behaviour in the US economy of the last two decades of the twentieth century when it faced two unprecedented merger waves. As for the neoclassical explanation, while it is true that the US economy grew at quite high rates of growth since the mid-1990s, it is still does not establish the positive linkage between the takeover waves and growth. Apart from other criticisms, this explanation does not stand the test of time. The takeover waves had started way back in the early 80s, then why did it take a decade and a half for it to have positive effects on the economy. The stagnationist explanation is quite inadequate because this explanation leaves out the counteracting tendencies to underconsumption that might exist in the economy in the presence of the wealth effect and the credit-driven consumption. The exhilarationist explanation has its own problems because of an implausible investment function with profit margin as its argument or an assumption of normal capacity utilisation in the long run thereby abstracting away from demand problems in the long run altogether. Moreover, despite an increase in the profit margin in the 80s, there was no revival in the investment climate in the US which contradicts the exhilarationist argument.

Our contention is that concentration coupled with financialisation produces two independent effects on the growth of an economy. On the one hand, it could produce an overconsumption as a result of debt and wealth driven consumption. An important point to be noted here is though both our explanation and the exhilarationist theory attempts to question the underconsumptionist tendency, the increase in demand due to overconsumption is entirely different from the exhilarationist argument where the spurt in growth comes from an increase in investment. Quite contrary to the exhilarationist argument, the process of concentration could lead to an underinvestment due to an increase in the desired rate of profit that the real investment would have to fetch to match the financial rate of profit in the financial investment market. Thus, there are two counteracting tendencies on growth as a result of increase in concentration and financialisation. The overall effect on growth would depend on the relative strength of these two forces. We believe that this can actually help explain why the US economy
picked up from the mid 1990s. We would like to argue that for the 80s and till the mid-90s, the underinvestment effect was more dominant even while there was overconsumption taking place since the early 80s. But after the spurt in the stock market since the mid-90s, the rate of overconsumption jumped further and outweighed the underinvestment effect leading to a high growth in the US economy in that phase. We develop this model in the next chapter.