

**ROLE OF STATE AND ECONOMIC GROWTH:
A COMPARATIVE STUDY OF SYRIA AND INDIA
(1970-2010)**

*Thesis Submitted to the University of Hyderabad in Partial Fulfilment
of the Requirements for the Award of*

DOCTOR OF PHILOSOPHY

IN

ECONOMICS

BY

FORAT MOHAMMAD SULIMAN

(16SEPH01)



SCHOOL OF ECONOMICS

UNIVERSITY OF HYDERABAD

HYDERABAD-500046

INDIA

JUNE 2020

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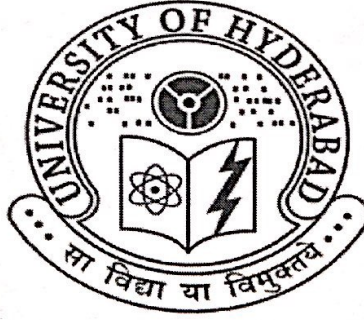
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DECLARATION

I, **Forat Mohammad Suliman**, hereby declare that the research embodied in the present thesis entitled, **“Role of State and Economic Growth: A Comparative Study of Syria and India (1970-2010)”** submitted by me under the supervision of **Prof. R.V. Ramana Murthy** is a bonafide research work for the award of **Doctor of Philosophy in Economics** from the **University of Hyderabad**. I also declare to the best of my knowledge that it has not been submitted in part or full to this or any other university or institution for the award of any degree or diploma. I hereby declare that my thesis can be deposited in Shodganga/INFLIBNET.

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Signature of the Candidate

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CERTIFICATE

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The thesis is free from plagiarism and has not been submitted previously in part or full to this or any other university or institution for award of any degree or diploma.

Papers related to this thesis have been:

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S. No.	Course Code	Course Title	Credits	Result
01	EC-801	Advanced Economic Theory	4	Pass
02	EC-802	Social Accounting and Data Base	4	Pass
03	EC-803	Research Methodology	4	Pass

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Acknowledgment

A nation's culture resides in the hearts and in the soul of its people –MK Gandhi

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Forat Mohammad Suliman

ABBREVIATION

SYR	SYRIA
IND	INDIA
FYP	Five Years Plan
UN	United Nation
WB	The World Bank
IMF	International Monetary Fund
WC	Washington Consensus
WTO	World Trade Organization
WHO	World Health Organization
NAFTA	North American Free Trade Agreement
U.A.R	United Arab Republic
U.S.S.R	Soviet Union
NICs	Newly Industrialized Countries
MNCs	Multinational Corporation
CBS	Central Bureau of Statistics- Syria
CPI	Consumer Price Index
RBI	Reserve Bank of India
EPW	EPW Research Foundation-India
EXIM	Export-Import
FDI	Foreign Direct Investment
BOP	Balance Of Payments
GFCF	Gross Fixed Capital Formation
Ex	Export
Im	Import
TFP	Total Factor Productivity
FTA	Foreign Trade Agreement
GDP	Gross Domestic Product
ISI	Import Substitution Industrialization
IT	Information Technology
QR	Quantitative Restriction
R&D	Research and Development
US	United State

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CHAPTER I

Introduction: Problem, Objectives, Methodology and the Plan

‘The Afro-Asian countries, after emancipation from colonial domination, had to embark upon state-led development efforts to bring about speedy socio-economic reconstruction’ (Bhattacharya, 1997, p.25).

1.1 State and Development: The Context:

Much of the story of development for post-colonial nations begins with their respective dates of getting independence. Achieving development and structural transformation have been the major objectives to remove abject poverty and give people a reasonable standard of life, made possible by modern societies. What is the ideal model of development to achieve is a debate remains inconclusive as any of the simplistic propositions are dismissed by wider evidence. There is an attempt to thrust a dominant view, and theoretical and empirical evidences are mustered to prove them as the right. But equally enough, no one model seems to have worked well everywhere. As Paul Feyerabend had cautioned us not to get bogged down by any one method for a successful evolution of science, it appears this equally true for the project of development. India, for example, was hailed at one point for choosing liberal democracy and mixed economy till the 1970s, then it was severely criticized for choosing an inefficient statist model (Nayyar, 2005). The fall of the Soviet Union and East Europe is attributed to the ultimate failure of state-led development. China is shown as the loadstar for development after it embarked on a liberalized strategy. South Korea is also hailed as a case for export-led free market-led capitalist economies to achieve the highest levels of growth. Soon, we learned that neither China nor South Korea is an example of a free market. China has 60 percent of its economy constituted by the public sector. South Korea has a significant role of its state in development strategy and it has not followed any free-market policy, rather it followed pro-business strategy (Kohli, 2005). It is now perhaps amply clear that it is not the role of state per se which determines the path of development, rather what is the role that the state actually plays in development. The object of research in this thesis is precisely this issue discussed in a comparative study of the two nations, namely, Syria and India.

Syria, a constantly war-torn nation, faces one of the biggest challenges to stand on its feet. It is often viewed as a case of a backward economy with questionable credentials. It is

subjected to liberalization policies by the international financial agencies on the premise of freeing the economy from the putative state capture. There is a great dearth of systematic research on the actual role of the Syrian state and this thesis aims to fill this gap. We intend to compare with the experience of India to show that state intervention has a more complex role to play than simply dismissing it. The comparison, attempted, here is more of heuristic one, not as a stark one to do one-to-one comparisons. In this chapter, we give an introduction to the debate on state and development, a background to Syria and India's development strategies, statement of the problem, objectives, and methodology.

1.1.1 Evolution of Role of State:

Historically, the world never was without political or social structure; it arises naturally with humankind in which all societies formed something like a 'state' to enforce intuitions (John Locke, *The Second Treatise*). However, form and type of 'state' vary from place to place and from time to time in a full historical context. Surveying the history back from its early beginnings shows how the 'notion of the state' has evolved from 'ideal state' to 'night-watchman state' to 'developmental state', and then to the 'effective state'. Each had corresponded to different theories that set up the grounds of various doctrines and approaches of nature, purpose, form, and its relations with individuals on fundamental issues such as rights, liberty, equality, property, etc.

Back in the 6th century B.C. of the Greek state, prominent philosophers like Plato, Aristotle, and others, were primarily concerned with finding the 'ideal state' and the best form of government. According to them, common good is more complete than private good, and a man is a part of the whole (Waterfield, 1993). They focused on the moral development of individuals and the evolution of society as a termination; the moral purpose was the state, not the individual. With the Renaissance and the Reformation in the 15th century, new ideas and events shaped the foundations of The Western World, coupled with the industrial revolution later on. However, the ideal state set by normative theorists had no clear reflection, especially with the significant contributions of Machiavelli's *The Prince*, and Ibn Khaldoun's *The Muqaddimah*.

Later, a new school of political theory was born, known as liberalism, which flourished primarily in Britain, and was best expressed in the writing of the classical (Hobbes, Locke, Smith, Bentham, Mill); and the Neo-classical; (Pareto, Marshal, Edge worth), and other theorists. The aim of the liberal theory was not searching for the state; instead it was to free the individuals from social-economic binds and the non-representative government. Liberal

theorists constituted the principle of ‘individualism’; they developed the concept of individual rights as the natural rights of ‘life, liberty, and property’. Bentham, a founder of utilitarianism, argued that government itself could not create utility; it is a regulative institution that is needed to tie up the disconnection between individuals and social optimization (Bentham, 1789). According to Locke (Second treatise on government, 1690), all agents are rational, trying to coincide self-interest with general interest, and their rights exist before the state, which comes through ‘mutual consent’. Hence, the state is a tool designed by individuals for specific purposes such as law, order, protection, and justice to secure the pre-existing individual’s rights (Locke & Filmer, 1884).

Mill’s writing of *rights-utility Synthesis* encompasses ‘rationality–individualism and utility maximization’, and, combined with the Pareto system, had given the political justification for implementing liberalism in the economic field. This brought about an approach of a market system based on a substantial individual’s right, free of regulation, where the government has *only* a role of a watchman for any kind of negative freedom (Mill, 1859). As addressed in Smith’s book, the state at its best is a ‘sovereign body’. Smith recognized that the market as a self-regulating system, accompanied by the ‘invisible hand’, is the best-unintended system to direct individuals and firms to work towards the nation’s good, growth and welfare (Evensky, 2015). Thus, the state should be restricted to certain tasks such as providing defense and safety, protecting property, and enforcing contracts essential for the market to flourish (Smith, 1908). In short, the arguments have evolved over the mutual rights and obligations of state and citizens. The state’s role has been shown as a provider of essential public goods- ‘the best government is the least’. However, beyond these minimal functions, traditional thinkers, philosophers, and economists have not agreed on the proper role of the state to induce development, public and private spheres.

The ‘individualist economics’ had been challenged by many heterodox schools, like Friedrich List of *German Historical School*, who explained the conditioning of the economic behavior of an individual with that of a ‘national system’. List criticized Smith’s free trade and the nature of the free market, and advocated imposing tariffs on imported goods- viewing protectionism as better than free trade. He argued that the private interest never lead to the society’s good and welfare (List & Colwell, 1856). Later, socialism became a more important force for change and reform. Socialists attacked the legacy of liberal theory for upholding the ‘anarchical’ free-market system. Marx challenged Mill’s theory of rights and utility based on cost-benefit analysis as the basis of capitalism (Sharnoff, 1983). Marx exposed the protection offered to the bourgeois class to exploit the masses by guaranteeing their private property

rights, siphon off the surplus value and offer military help establishing foreign markets through imperialism. However, his position that such a 'liberal capitalism' was promoted a civilization of property, which is as an unstable system and prone to periodic crises, and would ultimately lead to its collapse. He was close to Mill in his view of the economic base as a driven force to understand the political system.

Another action against classical liberalism and laissez-faire capitalism comes from the major political reaction of conservatives in Europe concerning the social balance and downturns in economic growth, and the evils of poverty. At that time, redistribution of income was not considered as a state's function, rather it depended on voluntary actions. (World Development Report, 1997, p21). A group of British thinkers [T. H. Green (1836-1882); L. T. Hobhouse, 1913 (1864-1929); J. A. Hobson (1858-1940)] favored state intervention in social and economic activity; individual liberty can be achieved under adequate social and economic circumstances. Even then, state intervention and its role in 'progress' remained limited and small until the early twentieth when a series of incidents after WWI created a different thought of economic history. Before proceeding through the new role of state, in the conceptual understanding of our study there is a need to recognize the debate raised over 'market versus state' arrangements in development studies, and we must first define the difference between the terms 'state' and 'government'.

1.1.2 State & Government:

It is important to see the distinction between state and government. State is the abstract term for the institutional structure of power, while government is the concrete form of it. In 1651, the English philosopher Thomas Hobbes in his treatise, *Leviathan*, described what the world would look like without active state- it is 'solitary, poor, nasty, brutish and short'. 'State' as a term itself in Hobbes' writing refers to the institutional building that obliges the legitimate coercion over a defined state (territory and its population), called a society. Thus, the government is an agency to run the rules and regulations (World Development Report, 1997). The government refers to the process of governing, to the exercise and utilization of power. It can also refer to the existence of that process, to a condition of 'organized rule' scripted in the constitution. Government is subject to change, and often keeps on changing- the people who hold the posts of power within a state. The term of state also may refer to the structure, arrangement, or system of governing in a society: monarchy, liberal democracy, dictatorship, socialist government, communist government, etc.

1.2 The ‘Market versus State’ in Development:

The meaning of state in development is indeed an evolved one. As long as the state was active promoter of interest of trade and business, historically, it was hardly a contested issue. But once the state was forced to the aid of common masses, by taxing the rich, the role of state had begun to be contested. The capitalist market growth did not have benign effects on people, in terms of causing inflation, deflation, unemployment, displacement etc. State had to protect the people by some means, which Karl Polanyi refereed as ‘double movement’ (Polanyi, 1944). By now, the role of the state in economic development is considered an old theme. In the post-colonial period, virtually, all governments have attempted to push development faster than market forces might have allowed. However, underdevelopment is a multi-faceted phenomenon, it is difficult to trace to one single factor to have led to it. In the literature, there is a frequent mention of two major sets of policy strategies for development. The first, as one that depends on market forces which is laissez-faire capitalism. In contrast, the second, to rejects the premise of ‘self-regulating’ nature of the market’ and replaces it with government/state-led policies, which results in a socialist or command economy. Yet, a purely market-driven or purely state-led economy has never existed (Perkins, Radelet, Lindauer, & Roemer, 2001). There could be a third way, state as a facilitator for some business groups to take the lead, as in South Korea. These are different models of state and development that have come up at different historical junctures.

1.2.1 Rise of State Intervention:

At the beginning of the twentieth century, almost all kinds of governments whether capitalist or socialist, industrial or developing, increased the level of controls and adopted a planned economy (Little, 2012). Yet, the degree of control varied from one country to another. The advantage of control, through the *visible hand of government*, was founded on a shared belief and confidence in the state’s ability to restructure key sectors in the economy to foster development [Rosenstein-Rodan (1961), and Rapley (1997)].

A plethora of factors was behind the growing popularity of planning- away from the market mechanism towards the end of World War II. First, the Red Revolution success in Russia in becoming an industrialized power and defeating the Nazis. The second was the Great Depression of the 1930s, declaring the end of ‘laissez-faire’¹ (Iwai, 2009). In parallel, Keynes

¹The US president at that time, Franklin Roosevelt, launched a ‘New Deal’; a series of new agencies to regulated banks, stock market, capitalism itself through inducing the state to experiment with countercyclical policies to restore economic activity. Moreover, a set of government-sponsored work and benefit programs founded on the idea that the government was responsible for the well-being of its citizens.

published 'General Theory of Employment, Interest, and Money'. The book was in response to the great depression, and Say's law of market. Keynesianism provided policy support for fundamental state intervention to stimulate the economy through fiscal policy, which became the key to the post-war boom (Snowdon & Vane, 2005). Finally, the demand for social insurance led to a welfare state in the industrial economies, required a more active government.

Landmark studies in economic thought including the modernization school of development had endorsed the role of state in development as necessary (Perkins et al., 2001). Following the Keynesian perspective of productive state, the school advocated for a more prominent role for the state through investment programs- state-led industrialization. The argument was that with a strong and big state, modernization would be faster and more coherent (Rapley, 2007). Economists such as Rosenstein, Nurkse, Hirschman, Lewis and Rostow emphasized the importance of state to increase savings and invest to trigger the process of development (Martinussen, 1997).

By the mid-century, after World War II, a drastic change occurred in the government's size and role within industrialized countries. Public expenditure crowned the throne as a strategic tool for development in the modern welfare state; it went up to 70% during the war and then accounted for about 40% of GDP (World Bank, 1990). Thirty glorious years (the 1940s-1970s), with government control of economies, high economic growth and high standards of living prevailed in Europe, Japan, and America in the form of mixed economies, through Keynesian fiscal policies, as opposed to complete central planning. It was a historical change that lasted up to the 1970s- the decade marking a turning point in development thought due to the rise of 'conservative revolution' in the developed world.

Dirigisme has come about in the prevalence of market failures. Theory and practice provided enough justification where the market was working imperfectly, suggesting that the government intervention was beneficial. In low income economies, the government has a positive effects (from the supply side) due to shortages of capital, saving and investment. Thus, through (1) the direct intervention of public sector in economic activities, and (2) indirect intervention by controlling private sector activities, will rectify the inherited distorted distribution of income in these countries. Furthermore, the government's role is justified on the bases of 'market failure', in which the market proved to be failed in performing and operating efficiently, and thus, the government can interfere and correct the market failure and perform certain functions accordingly. Building on the received notions, the new institutional economics added further basis to possibilities of market failures. Stiglitz (1986) delineated between the following types of market failures:

1. Public goods: with characteristics of non-rivalry, non-excludability and a problem of free riding.
2. Merit goods, which do embody certain characteristics, making them more or less unsuited for market provision.
3. Externalities, costs and benefits are not reflecting fully in prices.
4. Market failure arising from information asymmetry.
5. Market failure arising from extreme inequality, poverty and unemployment, in which the market outcomes do not reflect society's preferences. In other words, redistributive justice.

As a result, the government's involvement in well-defined areas was widely accepted; however, the most recent arguments against the activist state have been cast in terms of 'government failure' that arises through an assortment of circumstances leading to rebirth of market forces.

In developing countries, a confluence of factors pushed many governments in Asia, Middle East, and Africa toward central planning. Most of them emerged from colonialism, held with confidence in state-led development as the cornerstone for modernization and catching up. The newly independent countries were highly influenced by the experience of USSR, accompanied by the destroyed confidence in western market capitalism. Thus, governments remarkably grew in the second half of the twentieth century; much of its growth came through nationalism, large state-owned entrepreneurial sectors (Sarathy & Banalieva, 2014). The vast majority of post-colonialist developing countries were characterized as mixed economies with a strong dose of controls (Perkins et al., 2001).

1.2.2 Market Resurgence:

The mid-seventies' economic stagnation in the capitalist center spun a different course of journey for global capitalism. The ending of European reconstruction, the two oil shocks, and the progressive rise in wage rates in the advanced capitalist countries led to a profit and growth crisis. The reaction to this crisis took a rebirth of liberal ideology, called Neoliberalism. The new conservatives blamed the Keynesian policies and state intervention as the root cause of the crisis and advocated a worldwide restructuring program, largely referred to as 'economic reforms'. This would facilitate a second round globalization strategy for the capital from the advanced countries to easily migrate to the developing countries, with a sovereign guarantee and institutional mechanisms conducive for free flow (Sebastian, 1982).

Anne Krueger (1977) had evolved the new term ‘state failure’, in contrast to market failure. Drawing from public choice theory, she argues that state enterprises involve a serious problem of principal-agent relations. The bureaucratic failure arises from improper distribution of responsibility between the executive and bureaucracy, which leads to efficiency loss and corruption. She also draws on the critique of central planning, as an inefficient exercise suffering from information failure. The New Political Economists (NPE) argue that the state is captured by vested interest groups. The New Classical Macroeconomists go on to argue that policy intervention is a colossal macroeconomic failure that instead of causing output growth results in inflation and public debts.

Early changes were made in 1980s in the USA to control inflation, included deregulation, modest tax rates, and limited government spending associated with Carter administration, and continued even under President Reagan. In UK, the scenario was almost the same; Margaret Thatcher announced ending; nationalization, controls and regulations. Strong and corporate support had been mobilized to close the North-South Gap (Hall, 2012) - re-thinking and changing development course, policy, and practice across the globe. This wave fueled by the global debt crisis in 1982 spread to most developing countries.

The movement converted to a global phenomenon of market-oriented economic reforms, i.e., ‘stabilization and structural adjustment’, by late 1980s, when it became the primary preoccupation of governments in Asia and Africa inspired at least, or in part, by the East Asian experience. In parallel, the end of the cold war and the collapse of the Soviet Union appeared a distinctive phase in this direction which was followed by the emergence of new international political order wherein USA emerged as a single most dominant and hegemonic power (Clark, 2014). Further, worldwide free international trade was completed successfully in 1994 after the Uruguay round of negotiations, towards the formation of World Trade Organization, which would be the watchdog of free trade. The subtext, regarding the policy reforms for developing countries is well known as Washington Consensus (WC) (Nafziger, 2006).

In developing countries, the explosive rise of oil prices in the 1970s and then their sharp fall in the 1980s led to an accumulation of unserviceable debt in the developing world. The ‘Third World Debt Crisis’ forced the North to change its approach for development management (Greig, Hulme, & Turner, 2007). The school re-emerged as a response to the failure of the state-led development strategy of Modernists and Structuralists, arguing that protection and import substitution strategy followed in almost all developing countries had spurred industrial growth at the first stages but then sputtered in country after country.

Development economists of the Neo-classical school shifted the priority from the state, and promoted the virtues of market-oriented, outward-looking strategy, and individual initiatives, as the driving forces of progress (Rapley, 1997). Deepak Lal, an influential economist, argue against government intervention claiming that the governments' intervention in the third world is responsible for the distortions in the price mechanism (Lal, 1983).

The core argument of the neoclassical political economy is the 'Public Choice Theory' to economic policymaking (UN, 2005, p.11), due to arguments that the state's interventions are inefficient and subject to rent-seeking activities determined by the interests of political constituencies, as it was the case in India (Bardhan, 1990). Moreover, Neoclassicists suggested that government is at best, indifferent, and, at worst, even malevolent (Rao & Rajagopalan, 1990). And that government failure may result due to poor resource allocations, more state intervention, lack of information, distortion of relative prices as a result of taxation. In this regard, (Friedman, 1957), (Colander, 1984), and (Bhagwati, 1982) argued that policies of import quote are inefficient as they increase the rent from unproductive domestic profit-seeking activities.

In summary, neo-liberal ideology vociferously argued for a minimalist state, and that WC policies focused on executing the minimizing the state, giving greater role to the market, and creating competition to stimulate productivity. Thus, from a mixed economy, the discourse proceeded towards a greater market orientation, lesser government intervention, more openness to the world market, liberalization of trade and exchange rates, appeared to promote growth and increase efficiency and thence, development. Towards the end, and after decades of (un/successful) state-led development, the ideology of Neo-liberalism became almost unchallenged everywhere in the 1990s.

However, in the post Washington consensus, there is an acknowledgement that absence of state as a regulator is impossible. State also needed for addressing poverty and human capital (*Human Development Report*, 2005). The report questioned the short-term solution of the neo-liberalism school and focused more on the state's capabilities and good governance. Moreover, NICs experience had shifted the debate from 'state versus market' to a primary issue of 'the state effectiveness'. In conclusion, state-dominated development has failed, but so has state-less development.

1.2.3 The Effective State - the New Dilemma:

The post-Soviet scenario made the US to push for a multilateral trading agreement as an inescapable route for most developing countries. The second oil shock made some countries to accept structural adjustment loans as a panacea for the balance of payment difficulties. IMF and World Bank systematically pushed almost every country to take structural adjustment loans which are tied to conditionalities of liberalization. The argument is that trade deficits are a result of fiscal deficits, protectionism and public sector expenditures. The drying up of foreign aid, death of Soviet trade and increased oil prices pushed every country to face BOP difficulties. The success of East Asian economies were show cased as a confirmation of their development strategy prescription (Brown, 1993). Later, World Bank in (1993) and (1997) conceded about the government's role in East Asian countries, the growth miracle in these countries ended with the currency crisis of 1997. WB, subsequently, brought the state back into the discussion as a partner and facilitator to the market, but not as a main responsible for development. Thus, without a 'catalytic state', social and economic development are unachievable (World Development Report, 1997, p.1).

In contrast to the Washington Consensus agenda, which stood against government activism, the state has actually played a crucial role in all of NICs, a role that has subsequently been referred to as *the development state* by using market forces to promote development (J. E. Stiglitz, 2016). The vital role of the state in the 'miracle' economies of East Asia has shifted the debate from the 'right' function for the state within neo-liberal orthodoxy rhetoric to the 'state's capacity' to enhance development. In this sense, the effectiveness of the state has been perceived as a crucial element in understanding development. Even if Washington Consensus succeeded in achieving high capital accumulation and raising saving, it failed to meet the structural transformation since it (WC) believed institutions hold as given and, in the worst case, could be transplanted. Limitations on governance agenda should be a frame to identify *how* the government goes about developmental activities, not whether it should take such actions? (Gerald & Stiglitz, 2002).

(Stiglitz, 1994) And (Krugman, 1993) argued that East Asian development policies had alleviated coordination failures; reduced imperfections and underinvestment that could occur in technology and education. Thus, they did focus on correcting market failure, sustained the expansion of investment and export (J. E. Stiglitz, 2016). The NICs' record on investment and exports cannot be explained without reference to a set of trade and industrial policies put forth by their respective governments, which enhanced the state's role in managing macro and micro-policies, and provided an environment conducive to continuing economic development

(Asian Development Bank, 1993). In this regard, complex questions have emerged: What is the best role of the state? Does the state have a role in shaping the institutional context which can allow the market to function? And how do market, institutions, and policies interact in development?

After all, the state's role has been found to be continuously increasing over time in almost every country. However, there is a general agreement on the importance of state and markets and their interplay in economic development. But less agreement on a 'successful' strategy or the balance between them, which could be applied everywhere.

The experiences of developing countries after WWII brought considerable attention to the theory of state and market, where the interaction between both sides has to be analyzed in a specific international and domestic socio-historical context. Thus, this study focuses on the experience of developing countries in a comparative context. It makes an empirical case of India and Syria, for shifting from state-led toward the market-led economies. It considers the government's role in development in developing countries by contrasting the economic performance of Syria and India. The following sections provide a brief background of Syria and India, then we state the research problem, gap, objectives, and hypothesis.

1.3 Development and Growth in Syria and India: A Brief Overview

1.3.1 Syria:

Syria, as a region, lived through the civilization of Egyptian, Greek, and Roman and Ottoman empires from ancient to post-medieval periods, before it colonized by the French in the early 20th century. The pastoral and agrarian production systems were sufficiently commercialized. The discovery of oil in the Levant has made the region contentious and Syria is forced as a protectorate of French.

After gaining independence in 1946 from France, Syria entered a phase of instability and fragility due to different military coups that took place in the 50s and 60s. This also can be read as the inability (lack of capacity) of the new bourgeois classes (that emerged during WWII) to come together to lead major institutional changes for capital accumulation required for development (Amin, 1978). During 1958-61, Syria joined Egypt to form the United Arab Republic, under the growing popularity of Abdul Nasser, the President of Egypt to steer the Arab nationalist socialist development, but soon the military coup in Syria ended that experiment. The six-day war with Israel in 1967 ended tragically, which at least uniting some major sections under The Ba'ath Party, headed by Hafez Al-Assad in 1971. Syria, at that time,

had a thin formation of capitalist class, part of the reason being the capital flight that took place during the nationalization process in the late fifties.

During the era of Al-Assad, state-led economy in Syria was to create an independent and self-reliance economy- as Syria considered a ‘battlefront’ to Israel. For this purpose, Syrian government put key and vital manufacturing industries under its control (phosphate, oil, steel, cement, chemical and pharmaceutical, engineering, and sugar). It provided special exemptions and tax breaks to state-owned firms to enable them to lead Syria’s industrial transformation. Although the public sector amounted to more than 60% of GFCF, yet, the government allowed the development of the private sector within the ‘economic pluralism principle’. However, the private sector had been channeled to certain areas such as textiles, paper and leather goods, consumer light goods, and become sub-contractor to the government in construction deals (El-Beblawi, 1999).

After two decades of state-led development, during planning phase, Syria witnessed a successful social-redistribution policies where the proportion of large land ownership has declined to 0.83 of total by 1970. Further, Syrian population enjoyed high standards of living with per capita income raised throughout all classes (6% annual growth according to the WB, 2014). It was also accompanied with an increase in the facilities of health, education, and other public services such as electricity, roads and transportation system.

At the decolonization phase of the late 1940s, Syria and India alike inherited structural backwardness in the socio-economic arena. Problems in other spheres of national development were equally enormous: most of population were working in agriculture sector, high poverty levels, inadequate education and health facilities, poor housing and unemployment. Further, rural areas, were suffering from shortages of basic services such as electricity, education, health, transportation, and irrigation, besides a high degree of inequality. Most of the population lived in rural areas, and workforce were mostly in agricultural sector (Library of Congress). In order to achieve structural transformation and redress social imbalances, both countries viewed state-led as the bridge that could be crossed upon to overcome the inherited socio-economic underdevelopment at the close of the British and French colonial era. The state had a central role in the development process; it relied on national planning, through public investment programs that channeled into selected sectors, to be the road map to economic growth and social transformation. The newly independent countries were impressed by the experience of Soviet Union, rather than by western market capitalist model. Like India, Syria adopted a mixed economy strategy, rather than complete central planning like the Soviet Union.

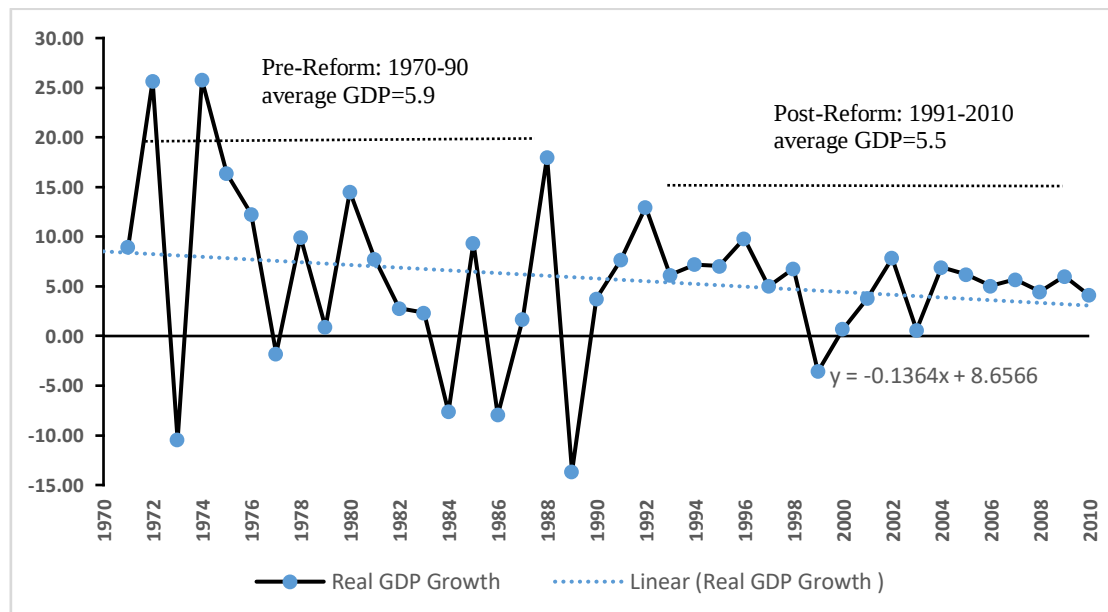
The state in Syria, like India, assumed a greater control over the economy in which, with massive investment programs channeled to main sectors, aimed to diversify industrial base, and achieve self-sufficiency. The state intervention was directed at import substitution industrialization (ISI) and a protectionist policy to help local industries to take-off (Rapley, 1996).

1.3.2 Major Trends in Economic Growth in Syria; 1970-2010

The overall trend of GDP economic growth rate in Syria for the entire period of 1970-2010 accounted for 5.7%, and the per capita growth rate registered 2.64%. Syria's economy showed profound fluctuations, and a non-steady growth rate at different phases, reflecting the many impediments that had faced the Syrian state at the internal, regional, and world levels.

For the reasons of analytical understanding, Syrian economic growth can be seen as two distinct phases for the entire period (1970-2010): (1) pre-reform period (1970-91); and (2) post-reform period (1991-2010). The average annual growth rate of GDP registered 5.9%, on average, in the pre-reform period covers the two decades of 1970s and 1980s, compared to 5.5% in the post reform period over the 1990s and 2000s. Total investment rate or GFCF (%GDP), generally increased in the pre-reform period, registering a peak in 1977 at 40% of GDP, while the average rate remained low after reform, to about 20% of GDP, and could not reach the same level of pre-reform period. Thus, it becomes feasible to argue that the capital in Syria carried out by the state decades.

Figure (1.1): SYR.GDP annual growth rate: 1970-2010

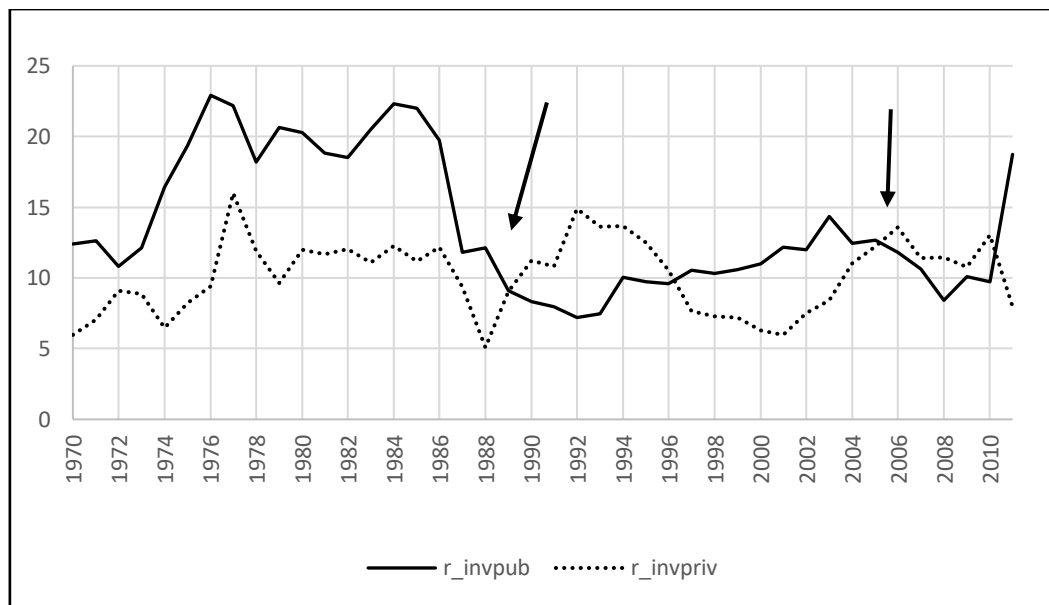


Source: Syrian Central Bureau of Statistics, 2018.

Pre-reform:

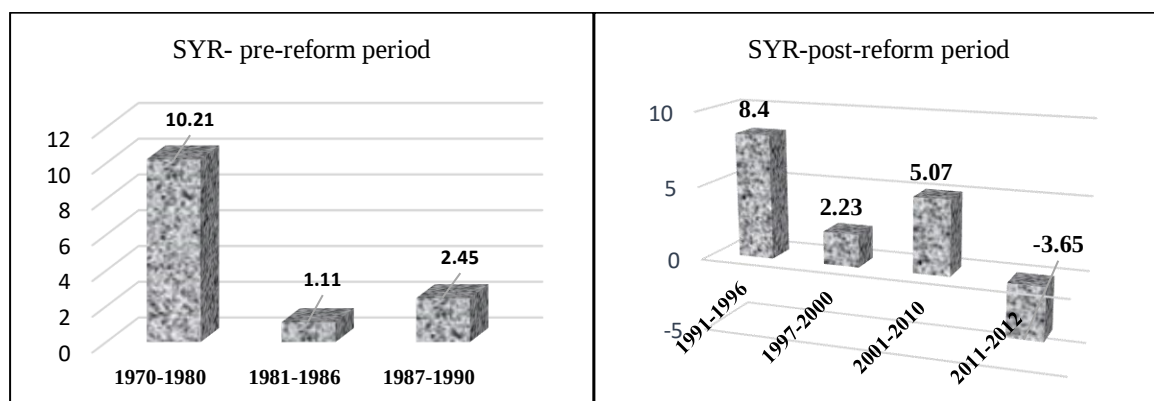
Syrian economic growth in the pre-reform period can be seen under three distinct phases. The first one is during (1970-80) with a high rate of growth of 10.21 percent, led by strong state investment and regulation-mainly financed through foreign savings (foreign aid and soft loans from U.S.S.R). The second phase corresponding to the period (1981-86) where the growth rates plummeted to 1.1 percent- resulted from political instability and severe drought. The period followed by a severe balance of payments crisis (BOP) in the third phase (1987-90). This phase some degree of relaxation of state control over trade and investment, and greater private sector participation.

Figure (1.2): Syria-Private and government Investment % GDP in Syria- 2000: 100



Source: Syrian Central Bureau of Statistics, 2018.

Figure (1.3): Syria-average relative growth rate in two sub-periods



Source: Syrian Central Bureau of Statistics, 2018.

The total investment (private and public) showed a high growth in the seventies and the first half of eighties, stand for 26.61%, 32% of GDP, respectively, before it decline to 20% in the 6th FYP (1986-90) due to cut in public investment drop by half in a response to the Bop crisis.

Post-reform:

By 1991, the power of WC and Neoliberalism agenda became hard to overstate; the world was in a bright tone of what undeveloped countries, and so India and Syria, should do to 'catch up' and become more prosperous. Neoliberal economists discredited state intervention, not just for short-run macroeconomic demand management, but against of any sort was then carried over to development. WC relied on the market through a minimal state (CE/GDP) as a key element or mechanism for achieving development. Paradoxically, developed countries tend to have higher proportions of state expenditure than developing one.

In 1991 in Syria, the Investment Law No.10 represented the most prominent qualitative change of Syria's economic policy, as the law opened the door for changing sectors' roles within the economy and allowed reinstate the private property ownership. The growth rate during this phase witnessed a burst of 8% (1991-95) (explained by the temporary boom in private investment, and conspicuous consumption after trade liberalization), and a relative recession of 2.23% (1997-00). However, reforms measures accelerated in the post-2000, not in the 1990s, the period covers the last phase of our study (2001-10), with 'the new regime'- Bashar Al-Assad era. The new millennium articulated the fact that a neoliberal ideology of economic reform has become prevalent within a wide range of the political and legal institutions in Syria (IMF, 2006).

Figure (1.2) shows the private and public investment (% GDP) in Syria for entire period (1970-2010). It shows that the private investment share of GDP had exceeded the public one by early 1990s, but declined again in the second half of 1990s, registering 7% on average. Later, in 2007, as the Degree No.8 replaced the Law No.10, private sector increased to 11.5% on average (2007-10). According to these figures, we argue that promoting the private investment within Syrian context remained a challenge, and the fluctuations in private investment reflect, undoubtedly, the high risk factor in Syria. Thus, the Syrian state, under Ba'ath Party, had to led the investment and counter these fluctuations in order to keep a sufficient level of effective demand in the economy, as argued by Keynes.

The 'reform process' was supposed to achieve a new phase of reliable economic growth and development in Syria and India. However, reform period has not failed after all, but it

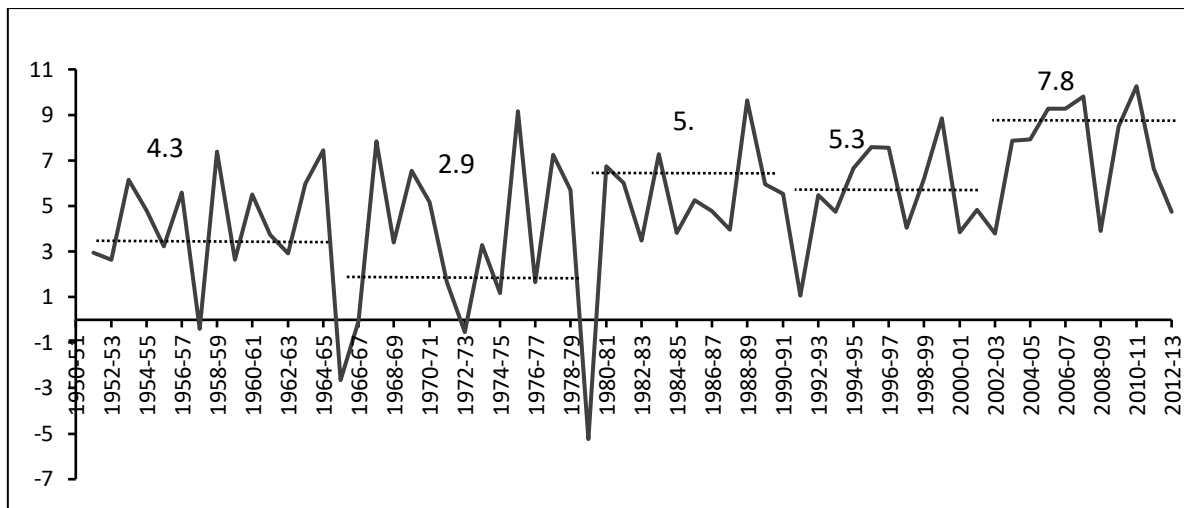
performed no miracle at the same time. The GDP growth in Syria has become more stable over time, especially after 2004, reflected the decline in political instability, yet its rate did not accelerate in the era of neoliberalism. It has achieved, on an annual average, the same rate of pre-reform period. An assessment of the social and economic situation that came out after reform period reveals that the output growth after 1991 was associated with the region's overall growth, and it had been dropped by a new active segment of private sector 'the new business sector'. Although the expansion of reform, the investment in the manufacturing sector remained weak and out of Arab and foreign investment attentions. However, the investment data shows that the investment figure in the post-reform period, on average, could not reach the rate that it had achieved in the pre-reform period.

1.3.3 Case of India: Trends in Growth and Phases:

The post-independence Syria and India had been a mixed economy. The goal of the development strategy was to alleviate poverty through rapid industrialization and achieve self-reliance. There are four strategies one can delineate in the growth trajectory in India. First, is the planning strategy with a heavy goods strategy in the Second and Third Plans, called Mahalanobis model. This has worked very well initially for a decade, between 1950 and 1960, taking industrial growth rates to 10 percent, before plunging to rock bottom during 1966. The overall growth rate recorded at 4.3 percent. There has been a recognition of agrarian and infrastructure constraints, besides foreign exchange problem.

The second strategy was a slight change from the Fifth Plan, in terms of direct spending on poverty alleviation and increasing infrastructural and agrarian bottlenecks. The overall growth rates continued to languish at 2.9 percent. The third strategy was during 1981-91, with partial liberalization and aggressive fiscal support to the growth process. This phase has seen overall growth rates reaching 5.6 percent. And the fourth strategy is giving up planning and turning to an almost total market economy since 1991. The growth performance is a checkered history of stagnation at 5.6 percent, high growth of 7.8 percent (2003-10) and a decline during 2011-18 (Rangarajan. C, 2017; Joshi 2015).

Figure (1.4) IND.GDP growth rate; 2004-05:100



Source: Reserve Bank of India, 2019

The goals of India's policy during its early period were to achieve high productivity and income levels, high employment, and to overcome India's poverty problem, through heavy public investment programs and extensive licensing, while the agricultural sector was modestly controlled. In contrast to the fashionable think about the growth rate of the Indian economy during the Planning Era, close scrutiny of annual growth rate during this phase showed that the first break-in India's growth was in the year 1975/76 of 9%. Also (Rakshit, 2009) argued that, although the overall rate was modest compared to the Asian standard, but constituted a leap from the previous British government (1900-47) of 0.9%. Further, from the fifth five years plan from 1975 to 1990, India was able to sustain a remarkable growth rate compared to other developing countries that witnessed a slowdown in the 1970s and 1980s. GDP growth reached another peak of 10% in 1988/89 (Rakshit, 2009; Panagariya, 2003). Moreover, India constructed a diversified industrial production in intermediate and capital goods and achieved food security, and reduced poverty which came down from 48% in 1977 to 30% in 1987 (government of India, 1992).

On the other hand, India after reform, at most, the growth momentum that had already picked up during the 1980s had continued after reform, especially during the period of 2001-2010, where the GDP growth was 7.2 percent on average. The fact which not refutable is that the entire growth miracle seems to have performed entirely by the service sector. The service sector, mainly communications and finance, emerged as the dominant sector and primary driver of growth by 2010, while agricultural output and organized manufacturing, which supposed to be beneficiary of reforms, exhibit no trend break. Further, as (Mukherji, 2009) argued, India's growth lessened the poverty rate and enhanced people's life condition; however, gains of the

middle and richer classes have been greater than other sections. The most disturbing feature in the post-reform period is that income inequality has increased significantly, and the health sector seems to be moving towards the market.

1.3.4 A Comparative Perspective:

Whereas it is hard and, to some extent complicated, to compare the growth performances of totally varying economies such as Syria and India, in size as well as in nature and structure, there is one question which we would like to raise, that is: what is the extent the public sector investment has performed a significant function in shaping the growth processes in these two countries. Has it impeded or has it contributed? Theoretically, the answer is usually sought in the way whether public investment harmed or helped the private investment. In other words, has the public investment led to crowding-in or crowding-out effect? However, it could be a little bit trivializing the issue, when the issue is more complex. Because it is premised on the idea that private entrepreneurship is already well developed. It also premises on the idea of a closed economy or inward-looking economy is the model. When entrepreneurship is nascent, the public sector can play a pioneering role. India and Syria apparently have something in common in their early phase strategies, namely dependence on public investment. Precisely, this is also the bone of contention as it is compelled to change. We shall pick this aspect for comparative analysis.

1.4 Research Gap:

The focus of this study is primarily to understand Syrian economy. But we would like to extend a comparison in terms of policy similarities and find India qualifies in this aspect. Further, the literature that investigated India's planning and reform strategy is tremendous, while that on Syria is quite rare. Most of the studies on Syria's economy focused on total investment and private sector investment either in pre-reform period or post-reform period: (Haddad, 2012), (Abdel-Nour, 2000), (Polling, 1994), (Perthes, 1992), are main studies that highlighted the main obstacles that faced the private sector in which they argued that private investment was far-reaching profits in Syria, and thus, it channeled to commercial and real estate activities. However, there are no such studies that addressed the growth story and its determinants in Syria, and the private and public investment roles in growth and development in a comparative framework of pre-and post-reform periods, within analytical context.

Accordingly, in this study we are trying to fill the research gap and investigate the development path of Syrian economy since independence during planning and reform periods,

in a comparative historical context with India. The investigation also will include comparisons of the state's role in promoting economic development. The experience of so-called 'reforms' that emphasized the market mechanism in contrast to the state in each country, and their success or failure compared to pre-reform period also addressed in the analysis.

1.5 Statement of the Problem:

Given the issues identified above, one can notice that Syria's economic growth has two major phases: (1) the investment boom phase via state-led, from 1970 to 1990, and (2) liberalization phase via private sector-led, from 1991 to 2010. Similarly, India's economic growth has also two major phases in line with many other countries: (1) state-led, from 1950 to 1990, and (2) market-led, from 1991 to 2012-13. Accordingly, relevant questions arise about the main reasons behind Syria's and India's diversion from their previous course of development of state-led to market-oriented economies, and the outcomes. What were their main determinants of development strategy in the post-independence, and how did these factors change thereafter, particularly after 1991? Another question arises about the main achievements and limitations of each sub-phase of pre- and post-reform periods, in each country separately. Further, throughout history, there was a positive supply-side rationale for the government (state) to interfere in the development process in low-income countries, owing to the fact of lack of saving and skewed income distribution. Thus, the collectively desired allocations of resources were obtained through directing public investment programs, and regulating the private sector towards the productive areas, as it was the case in Syria and India. The questions here, as the Syrian and Indian states, had followed expanding public investment programs to push the development process and promote the growth rate, are: what was the effect of public investment on GDP growth for the total period (1970-2010) in Syria and India? Did it produce a demand-driven growth or supply-driven growth? Compared to the pre-reform period, does this impact has changed in the post-reform (era of neoliberalism) period? What were the main determinants of investment during the planning era? Does the data support the view that public expenditures are only good enough to cause inflation and not growth?

Moreover, after 1991, as WC became the most theoretical limb of the general movement of neo-liberalism. It contended that slow growth is a result of poor allocations of resources, and state intervention, where public investment crowded-out private investment. Accordingly, as Syria's and India's states witnessed a substantial cut in public spending, and opened up their trade regime considerably. Is there any evidence of crowding-out/in effect in the two sub-periods and in both economies? What was the effect of trade

openness/liberalization policy within WC agenda on economic growth in both economies? Recently, there is a growing understanding of the limitations of neoclassical model, especially after the 2008 crisis which showed that markets on their own were neither efficient nor stable, and that trickle-down economics did not work in which the income inequality increased in most countries after reform.

The problematic of this thesis is to examine why a strategy of central planning and state intervention, which were major strategies in Sixties and Seventies world over, to undertake development and growth were undertaken in Syrian and India. When growth is essentially understood as resultant process of mobilizing savings and investment, imparting a lead role to public sector for accelerating the development becomes a natural choice. The public spending becomes a critical component in transforming and sustaining the macroeconomic growth and stability. The second problem that needs to be examined is how far the public spending contributed to the growth and what and its effects. Third problem that will be examined is to what extent the trade openness that was enforced through Washington Consensus has succeeded in making these economies to achieve a higher and stable growth path.

1.6 Significance of the Study:

This study should help understand the growth process of Syria, which is currently at crossroads irked in war and destruction. When the growth process is re-commissioned after setting of peace in the future, the issue of state intervention will be once again at the helm of policy. In today's global conditions, it is important to break stereotypes, which is possible only with empirical work. Second, a comparison with the experience of other countries, especially like India, would boost the morale for smaller countries.

1.7 Objective of the Study:

In the context of the constant debate and current changes in the role of the state and markets and their interaction for development, my objectives set as follow:

1. To examine the circumstances under which India & Syria have chosen state-led policies to promote growth.
2. To analyze the process and phases of economic development strategy- their achievements and limitations, in a comparative context of pre- and post- reform, in each country separately.
3. To trace the form and type of relationship between government and private sectors- (crowding out /in) - in pre- and post- reform periods.

4. To examine the government spending significant figures- Revenue and Capital, concerning economic reform through ‘belt-tightening’/fiscal austerity measures.
5. To examine the retreated role of government defined as ‘cut in public investment’ suggested by WC, and its effect on economic growth in both economies.
6. To investigate and examine the effect of trade openness/liberalization policy within WC agenda on economic growth in both economies.

1.8 Hypothesis:

1. Market-led liberalization policies in India and Syria have led to higher rates of growth and development compared to the pre-reform period.
2. Economic factors alone explain growth fluctuations.
3. Trade deficits led Syria and India to adopt liberalization policies.
4. Public expenditure does not lead to economic growth, while private expenditure does.
 - 4.1 Public expenditure Granger-cause inflation in Syria and India.
5. Public investment *crowds out* the private investment in Syria and India.
6. Trade liberalization and openness contributed positively and significantly to the growth in both economies.

1.9 Data & Methodological Issues:

The database is composed of (i) Data sources, (ii) period of the study, and (iii) data methodology employed in this study.

(i) Data Sources:

The data is drawn mainly from secondary sources of data. The researcher has built an analysis of annual time-series data for each country separately. Syrian economy data has obtained from different sources; the Central Bureau of Statistics of Syria (CBS)² (Syrian Ministry of Finance³, Central Bank of Syria⁴. The focus of the model is on theoretical based macro-economic relationships and variables on annual aggregated based of 2000 price in Syria. The availability of data intrinsically influences the choice of the variables in estimated approach. The data for India derived basically from the Reserve Bank of India (RBI), Planning Commission- various issues, and EPW (Research Foundation).

² <http://www.cbssyr.sy/index-EN.htm>

³ <http://www.syrianfinance.gov.sy/english/home.html>

⁴ <http://mail.banquecentrale.gov.sy/main-eg.htm>

(ii) Period of the Study:

This study mainly focuses on theoretical and empirical analysis. The data employed deals with the period 1970-2010 for Syria, while for India, the study covers the period 1950-2013. There is a total of 40 observations for Syria, and 63-64 observations for India. For the analysis of the changing role of the state, pre- and post- liberalization, the whole period of the study has been grouped under two phases. Phase-one covers the period from 1950/51-1991/92, which spans over four decades of development planning in India, while the post-reform period covers the years of 1992/93 to 2013/14.

Due to lack of data in Syria pre-1970, the study covers the period between 1970 and 2010 which spans four decades only- twenty years prior to the adoption of the economic reforms (1970-1991); phase one. Phase two begins with the year 1992 and extends up to the year 2010, which covers twenty years of the working of economic reforms. The study has been carried on only up to 2010, because the Syrian economic development path has been interrupted by ongoing conflict that sparked in March 2011. For that, the researcher has had to exclude the second decade of the twenty-first century (2011-2019) from the study and restrict the study period to 2010 to enable temporal comparisons between the two economies.

(iii) Methodology: Measuring the State:

A standard measure of government role is the ratio of government expenditure to the economy's total spending or total output. We define the expenditure variables as total purchases of goods and services, i.e. government consumption and government investment (Blanchard & Perotti). This study employs data on real government investment, without taking into account the consumption data, as the main objective of this study is about the interaction and the influences between public and private sectors, and thus growth performance. In addition to fiscal interventions, we analyze the government's trade policy stance over time through a key indicator of economy's openness degree (share of export to GDP). This index will allow testing the impact of openness of trade as a driver of economic development in both economies. Gross Domestic Product at Factor cost selected as the relevant aggregate income for this study. Finally, most of the time-series data, at the aggregate level, exhibits a steadily increase or decrease pattern, which could lead to a spurious association. Hence, to avoid this issue, various tests were used to identify the nature of the data, and several economic techniques like VECM and ARDL have employed.

1.10 Limitations:

Every research has limitations and one should recognize them. The limitations of this study are:

1. The study compares two different countries in many aspects. India, in the twenty-first century, is considered one of the emerging superpowers of the world and a significant destination for FDI, and it is a leading exporter of different goods and services. In contrast, Syria is a very small country with fragile and uncertain political and geopolitical context. Syria's complex political and geopolitical situations have shaped its development path, influenced its growth potential and reform choices. However, there are many similarities between Syria and India with the general aim of development strategies and reform policies. Thus, the comparison would be built on the international policies that affected both countries and shaped their developmental path, rather than a specific domestic factors related to each country.
2. While examining the effect of government on Growth and development, distinguishing between public consumption and public investment is useful. But even sophisticated measures of these two categories tell us only a part of the story. Governments also plays multiple roles: (1) a regulatory role, (2) a catalytic role, and (3) a coordinating role. However, this study exclusively tests the direct role of state via investment programs.
3. Government has also leading role in setting the broader institutional environment- the incentive, the reliability and effectiveness, the laws, and the protection of property rights. Yet, the government's quality is never likely to be registered in the national accounts. Thus, the analysis in this research will focus on quantitative measures of the state. And in some parts, when it is necessary, the researcher tries to show the distinction between what the governments do and how they do it, through inquiry on policy content, and institutional arrangements and capability.

In a broader sense, state capacity and credibility, institutional capabilities, and reform policies that focused on improving the behavior of state agencies and strengthen the institutional environment will not be included in this study. An evaluation of the quality of a critical component of government, its bureaucracy, needs to be addressed in a future research.

1.11 Chapterization of the Study:

The Chapterization of this thesis is set as follows: the first Chapter gives the introduction and methodology and a broad understanding of the changing state's role through

time in all over the world, and outlines development strategy in India and Syria. Chapter II considers both theoretical and empirical literature review. Chapter III discusses the development strategy of Syria in a historical context up to 1991, the political economy of reform, and the development strategy after reform until 2010. The Chapter IV gives a comparison of the development strategy of India in pre- and post- reform; and their achievements and limitations. Chapter V and VI analyze several aspects of government expenditure (under economic classification: Revenue and Capital), their trends and major components in Syria and India, respectively. They also present results of the econometric tests of the impact of public capital expenditure on GDP, and on the private sector in the two sub-periods, and in the two countries as well. Chapter VII considers the trade policy reform in the ideology of Washington Consensus, and the effect of trade openness in both countries on the economic growth. The chapter VIII chapter is a summary and conclusion.

CHAPTER II

Theoretical & Literature Review

2.0 Introduction: Scope of the Chapter

Since the economic and social transformations of societies tend to move together, they became integral to the process of economic development. It is a historical process of evolution, which economists sometimes prefer to describe the ‘stages theories’ of economic development in which the capitalist economies emerged from the pre-capitalist stage. This is probably valid to a large extent. Since we attempt to examine the role of the state in development economics, we will discuss the different theories of economics that make role for the state in development such that a framework for the thesis is teased out.

Historically, Syria and India had been places of oldest civilizations, passing through ancient and medieval periods, which had nurtured long-distance trade for centuries. Both countries had benefitted from ‘silk route’ trading, receiving the opportunity to export handicrafts and spices. As we mentioned in the first chapter, both had also been under the colonial yoke, in which the colonial trade is perceived to have harmed more than it benefitted. Both countries have embarked on the course of development, in the post-colonial period, taking the contemporary strategies of development in vogue, namely, public investment as the major plank to inspire economic growth. Both countries also did not undergo any radical and revolutionary paths, which makes them different from socialist countries. These features would qualify a case for a formal comparison. However, given these commonalities, there are perhaps more dissimilarities between the two which makes the comparison equally hard. India is a very big country, with a large territory and a large population with vast diversity. Indian subcontinent probably was on firmer footing at the time of its independence, with large pool of natural resources, a mature capitalist class and necessary institutional development. However, for accelerated industrial development, most countries had adopted a mixed economy strategy. Syria, as mentioned earlier, has also embarked on the mixed economy model, popularly described as the socialist model by the Ba’ath Party. In this chapter, we will survey the literature on both countries to give us an idea of growth processes, their determinants, and the constraints. This chapter presents the received literature in two parts. First the theoretical review over role of the state in development and the second part would discuss the empirical literature, which would serve to identify the research gap and justification of the study.

Section- A

Review of the Economic Growth & Development Theories

2. A.1 The Early Classical Traditions:

What causes and sustains economic growth had been the most question that the modern economic theory tried to analyze. The classical economic and development theory, built on the work of the 19th-century English economists, Smith, Malthus, Mill, and Ricardo, focused on the nature of Nation's progress and its causes and distribution across classes.

Adam Smith, identified the functional role of capitalists in investing constantly on the capacity to produce, which is referred to as capital accumulation or investment in creating the wealth of nations, guided by the invisible hand of the markets (Smith, 1908). He saw the stability of the 'natural process' of accumulation, determined by the 'natural' distribution of the wealth between profits, rents, and wages. The greed of capitalists, for Smith, is regulated by the competitive factors, where no one agent is allowed to dominate. While it is true that capitalist accumulation with the help of markets did lead to the accelerate growth of capitalist counties like Britain and France, however, the phenomenon of either growth or capitalism hardly been so smooth and harmonious. It is the successors to Smith in the Classical tradition, like Malthus, Ricardo, and Marx who began to see the challenge of sustainability of the momentum of growth (S. M. Akhtar, 1963).

Robert Malthus, based on the study of an agronomist Arthur Young on the growth French population, expressed concern that incessant growth of population, given their unregulated urges, will make a demand for food to go up, and result in increasing the rents of the lands, prices of land. The food shortages would lead to an increase in wage cost and ultimately a fall in the purchasing power of the people which would spell doom for the growth (Malthus, 1951). However, not only that he had no proper theory of population, but seem to have ignored the opportunity of migration for the poor and wretched opening in the 'New World'. He has also underestimated the scope of technological advances that raised food production, thus saved the doom that he tended to prophesy.

It is Ricardo who had first provided the most relevant analytical model of value and distribution in a capitalist system, which has not yet undergone the complete structural transformation. Given the complementarity of the agriculture and industry, Ricardo based on the Malthusian population theory, saw that the contradiction between the rising rents and stagnating profits as a major reason for the economy to gravitate towards the 'stationary state'

(Straffa, 1951). Ricardo contended his life for repeal of Corn Laws Act, which prohibited the import of Irish cheap corn to protect the rents of English landlords. Even though the technological advancements in agriculture and industry had averted the wage good constraint and demand constraint resolved through greater exports in contemporary Europe, Ricardo's analytical framework is instructive for developmental policy for developing countries who face similar trajectory of structural transformation. As for growth, the major takeaway from Ricardo is the danger of the deleterious impact of high rents and domestic food inflation on profits and accumulation (Adelman, 1965). Further, Classical doctrine exalted the laissez-faire policy, it is based on the idea that capitalism is self-regulating with non-government interference, and the society would require a 'civil government', as far as it is founded, for the development of institutions primarily for the security of property (Adelman, 1965). However, the idea was to be challenged in the latter times by Keynes.

To sum up, classical political economists were writing during a period in which capitalism was growing in European society with the Industrial Revolution, leading to profound changes in society. They understood economic growth as a process that society is experiencing naturally. Nonetheless, they were well aware of the need for a 'minimalist state', and that productive investment, profit rate and accumulation are the main driving forces of 'progress' (Enke, 1966). Hence, changing the profit rate was a determining factor for the long-term transformation of the economy, while Marx found the declining tendency of the rate of profit the key factor of self-destruction of capitalism.

2. A.2 Marx's Intervention:

Among the major writers of the early classical traditions, one may also be added Karl Marx, who, though not belonging to the classical school, used the school's tool of analysis (S. M. Akhtar, 1963). Marx studied more critically the capitalist system instability. He concluded that the external and the internal contradictions of the capitalist system, namely, the constant competition tend to reduce the price, while capitalists tend to resolve this issue by increasing the exploitation of workers by various means including mechanizing the jobs, to protect the profit rate. However, the external contradiction from outside, and the internal contradiction of displacing the workers would result in falling demand at the aggregate, rising capital cost would tend to reduce profit rate gradually (Sutcliffe, 2008). While every technological innovation and finding of new cheap resource market can counteract this tendency, Marx tended to suggest that capitalism would eventually face the crisis of falling rates of profit.

History has proved that there are several avenues for capitalism to arrive at his stage of a crisis. First, it resorted to colonial and imperialist ways of primitive accumulation which had resulted in the two World Wars; however, the capitalist crisis that addressed though imperialism project while proved catastrophic Europe, nevertheless created opportunity of formal freedom for the colonies. The existence of Soviet Union has created further possibilities of independent pursuit of development without depending on the Western capitalist countries. Some post-colonial countries have well leveraged the conditions of the Cold War to their advantages, best examples being South Korea and China. Second, the crisis of global capitalism has manifested in terms of over-accumulation crisis, which periodically resulted in realizing the over-accumulation of global finance in terms of the increased debt burden of countries, like Argentina in the past and Greece in the recent period. Global capitalism, with the US as its center, continued to adopt strategies to overcome the crisis of accumulation in terms of the formation of monopolies, financialization, and neo-liberalization of economies would create avenues to averting the capitalist crises (Bellamy.et all, 2015).

Marx's analysis of capitalist crises has provided a framework to analyze the subsequent developments in the capitalist system from the times of Marx, while some form of crisis constantly affected the capitalist growth process. The Financial Crisis of 2008, being the latest one, which has come from the contradictions of systemic changes that were undertaken to sustain the capitalist growth and accumulation. In today's world, this analysis continues to be relevant to understand the present problems of capitalism. Marx discussed colonial expansion further, as a part of global capitalist development, which appealed to the worker class of the world -not just those of Europe (Avineri, 1986). He urged the radical strain of development economics, like in the writings of John Hobson and Rosa Luxemburg. Hobson (1858–1940), differentiated colonialism from imperialism, viewing the former as an inoculation of national living abroad, with the latter carrying 'domination ideology' over to the new territory, with more advantages of securing foreign markets for export, and purchase of cheap raw materials (Goodacre, 2005). Thus, profit-seeking, for Hobson, is a manifestation rather than the cause of imperialism, with the root cause being, the nature of the capitalist system itself, in which capital accumulation and production outmatch the consumption (Amin, 1977).

Rosa Luxemburg (1871–1919) went far beyond Marx's concept of reproduction and pointed out that capitalism needs a non-capitalist social system to survive, because the surplus-value needs to be realized outside the sphere of capitalist production (Luxemburg, 1951). Thus, colonialism and imperialism were much more than simply a search for markets for excess production (Luxemburg, 2003).

2. A.3 The Keynesian Revolution:

In contrast to the classical view of self-correcting market forces through price mechanism without any intervention of government, Keynes provided the first ever-strongest case, theoretically and empirically, of policy support for substantial state intervention. Keynes witnessed the most significant crisis of the capitalist system- Great Depression.

The central proposition of Keynesian theory is that the aggregate levels of employment and output are subjected to changes of aggregate 'effective' demand. Thus, the government has to step in through an increase in autonomous investment to shift the aggregate demand's level (Snowdon & Vane, 2005). In the Keynesian paradigm, divergences between S and I cause a quantity response; in case of an increase in saving, there will be a decline in aggregate spending, output, and employment- Keynes' paradox of thrift. As (Samuelson, 1988) noted, Keynes' intellectual contribution in the twentieth-century has profoundly influenced and shaped the development thought after WWII. In the Keynesian vision, there is a possibility of market failure; therefore, the role of government has to be intensified. Consequently, the government's role increased considerably and became directly responsible for a large part of economic activities.

The two economists (Harrod, 1948) and (Domar, 1946) dynamized Keynes's static model (short-run), and conducted a long-run model of the capitalist market economy. Their model has two components, one on the determinant of growth and second the stability of growth. Saving rate through investment, is the primary determinant, hence raising the savings rate is the key for the growth. Harrod-Domar proceeds to theorize stability, by using the two building blocks, namely, the warranted growth rate⁵ and the actual growth rate. Accordingly, growth rate will always increase as long as the warranted rate surpasses the actual and vice versa. As long as they match, it gives the golden path of balanced or stable growth (Shaw, 1992). In the absence of the capacity of the private market forces to achieve, the rider suggests the solution through state intervention. Moreover, if private domestic sources were inadequate, the government is seen to have an important role to do through both budget surplus and foreign aid in order, to close the saving gap and achieve the desired growth (Riddell, 1987). Since then, Harrod-Domar model provided the framework for developing economies in terms of raising savings rate for achieving growth.

⁵ Warranted rate of growth is one where the expectations of capitalists are exactly realized, through planned expenditure equaling actual.

Harrod-Domar model became tremendously effective in the literature of development economics in post-World War II phase, wherein the model turned development into a matter of rational planning, appropriate investment programs, and pragmatic implementation through the visible hand of government. The notion of development itself emerged as a distinct field, widely understood as a systemic transition from a traditional to modern industrialized society (Sanyal, 2007).

2. A.4 The Exogenous and the Endogenous Models of Growth:

Contrary to the Neo-Keynesian (Harrod-Domar model), and to the Keynesian view, the neoclassical model, based on the formulation of (Solow, 1956) and (Swan, 1956), predicts that the growing ratio of saving/investment would have a temporary impact on the long-run economic growth. According to this model, the growth rate is driven by both rates of technology and labor supply. According to this model, technological progress is determined exogenously, and therefore, knowledge is a public good, and it is freely accessible. In this model, economic policy has no impact on the per capita output level, and it makes no changes in the path of long-run growth. It can increase the growth rates only temporarily until it reaches to the new steady state. Thus, in terms of policy inducements for long-term growth, the neoclassical model has little to offer (Romer, 1988).

However, the model has been criticized on various grounds. First, the empirical research on convergence theory, which was predicted by the model, proved to be poor (Snowdon & Vane, 2005, P.154). Second, (Mankiw et al., 1992) argued that the neoclassical lacks a theory for technical progress. Third, the model's argument about per capita long-run growth rate being linked to an exogenous technological progress, was considered an unsatisfactory conclusion to explain income per capita differentials across the world.

Thus, a new growth theory emerged in the mid-1980s, articulated by the work of Robert Lucas and Paul Romer, who constructed an alternative model of growth, known as endogenous growth theory (New Growth Theory). The central proposition of this theory is that there are increased returns to *broad* capital, *human* capital (investment in knowledge), and *physical* capital. Building on Kenneth's insight (1962) of learning by doing, (Romer, 1995) argued that technological progress is endogenous, based on purposeful actions of economic agents realizing their self-interests, and per capita long-run growth depends on investment decisions, rather than an exogenous technology.

However, the endogenous model did not do better than providing an enhancement to the neoclassical model in measuring the sources of economic growth. Different heterodox

authors identified several limitations of neoclassical economic within the capitalist system. The critique, particularly, was defined based on different (social, political, and ecological) parameters, in which their main concern was in regards to fundamental human needs, and sustainable development.

2. A.5 Developmentalism:

While the developed countries faced the problem of deficiency of the level of aggregate demand (underutilized resources), the main preoccupation of the modern theories of growth, as applied to the developing countries, in the 50s, is the severe shortage of productive capacity itself, which needs to be built. According to Kalecki, in the post independent countries, the capital is a shortage, therefore, a decisive boost of investment in fixed capital is needed to be implemented by different policy measures. Kalecki stressed the importance role of the state that have to do in the developing countries to raise the rate of capital formation in order to accelerate and expand the productive capacity which is essential to ensure a rapid transformation and growth of the developing economies (Kalecki, 1976, P24).

Developmentalists went further and argued that to increase the productive capacity, far-reaching policies and changes are necessary, and social recognition is also needed to be taken into account. Rostow's theory of 'stages of economic growth' attempted to analyze the growth process in a linear description of the historical progress of society in five economic stages: (1) traditional society; (2) the pre-conditions for takeoff; (3) the takeoff; (4) the drive to maturity; and (5) the age of high mass consumption (W. Rostow, 1960). This theory was viewed as an alternative to the Marxian theory of historical materialism (Nafziger, 2006). However, Rostow's theory lack of concrete policy measures to suggest, and the transformation from a stage of take-off into self-sustained growth has no formula to advocate through which the relevant processes could be accelerated and the take-off stage (S. M. Akhtar, 1963, P60).

Before Rostow's theory, there were a few theories analyzed several factors that hindered the growth in the developing countries. (Nurkse, 1967), demonstrated that poverty which perpetuates itself in mutually reinforcing vicious circles on both supply and demand sides, is the main explanation of underdevelopment. The sequence is that poverty, because income is low, leads to low income, low wages, and thus, low saving, low investment and capital formation, and productivity. On the other side, because productivity is low, income is low, the market size for consumers is small, and demand is less, and hence expected profits are less, and thus, so is investment, which leads again to low income and productivity.

Similarly, Paul P. N. Rodan, (1943b) and (1951) identified major externalities that these countries were struggling with, such as (1) mutual demand between industries for complementarities of heavy manufacturing, arising from the interdependence of investment decisions. (2) Provision of trained and skilled labor, and (3) infrastructure. Thus, as suggested by (Nurkse, 1967; P. N. Rodan, 1943b), to break this knot, a massive leap - sizable efforts of capital is required; the investment programs must be both *massive* and *balanced* to all significant sectors of the economy, for growth to occur (Eatwell et al., 1989).

The main criticism that faced these theories is: from where is the finance coming for such huge investment since extreme poverty was already assumed? Indeed, the ideas of externalities and vicious circle provided a rationale for state to interfere, and to foreign aid to increase, to the developing countries, as the keys to economic development. Moreover, the theory of 'balanced growth' was criticized by Albert Hirschman who insisted that what is needed is not a balanced growth; rather, a strategy of rational unbalanced growth.

Hirschman viewed the linkages pointed out by balanced growth advocates as essential but not in accordance with the actual development process, arguing that big push approach required skills and massive efforts to launch (Hirschman, 1959). According to him, neither technical progress nor saving are constraints to development; rather, it is the ability to invest (by the risk-takers/decision-makers). Development is greatly constrained by dislocations, inequalities, and social tensions, which are likely to be endogenous. Accordingly, the development process was all about calling forth 'resources and abilities that are hidden, scattered, or badly utilized' (Hirschman, 1959). Hirschman developed the theory of 'Unbalanced Investment' to complement the existing imbalance inherited over the development course, i.e., an imbalance between sectors and industries (Hirschman, 1984). Thus, the deliberate unbalancing of the economy, in line with a pre-designed strategy, is the best path for economic growth.

Similar to Rostow's concept of leading and following sectors, Hirschman specified what activities to specialize in, and that would stimulate other investment decisions. Investment should occur in vital sectors, industries, or activities, that have the greatest backward and forward linkages, wherein they would be able to lead the process of development, i.e., the interdependence between industries should carefully be considered by the planners (S. R. Khan, 2014). Development, could take many decades, and investors should not be left solely to the individual- the government can maximize social profitability. Thus, state's intervention in the economy is justified to accelerate the country's transformation from subsistence (agriculture) to a modern (manufacturing) economy (Eatwell, Milgate, & Newman, 1989).

This idea of growth in a due course process was articulated, but in different way, by Lewis' model. According to (Lewis, 1954), a less-developed nation has two sectors, (i) traditional agricultural sector and (ii) industrial modern sector. The economic growth occurs as a result of an increase in capitalist sector's size, which accumulates proportional to subsistence agricultural sectors, due to surplus labor and zero marginal product in the non-capitalist sector/agriculture (Lewis, 1954). Assuming a horizontal supply of labor, capitalists accumulate and reinvest the entire surplus which, in turn, would drive the growth and structural change. In different words, the expansion of the capitalist sector at the expense of subsistence sector, and the growth could not be achieved unless the absorption of the latter by the former being completed (P. T. Bauer, 1956).

Lewis's model had been criticized on various grounds. P.T. Bauer (1956) pointed out that, using Marxian terminology, Lewis referred to the two sectors as the capitalist and non-capitalist sectors (subsistence), respectively. However, the distinction and the conception of the nature of each sector are too sharp and unrealistic in many way. Further, he derived his model from the classical ideas; with fixed level of labor force, the process of accumulation will continue until the labor surplus is exhausted, and thus, the process of industrialization would continue - went against the welfare state.

The developmentalism approach was influential in the 50s and 60s, in which the development in the under-developed countries was seen as a modernization process -as an imitation to the West. The theory implied the fact that development is basically endogenous (required huge investments), and it should be accompanied by changes in social structure and human attitudes (Hettne. B, 1983). Modernization theory grew out of Western Development Thinking after World War II; however, it had been under strong criticism came particularly from Latin America, known as the dependency school.

2. A.6 Structuralism and Dependency Theory:

According to this approach, the underdeveloped world was facing external obstacles, rather than internal, in which were put on their path of development, by the center (developed world). The two prominent scholars of Structuralism are Raul Prebisch (1901–1986) and Hans Wolfgang Singer (1920–2006), who, with two separate papers in 1949, articulated the theory of Dependency. The authors noted that terms of trade had been worsened in the periphery relative to the center; in the long term, prices moved against primary goods (produced in the periphery) due to inelastic price demand- the idea known as Prebisch–Singer thesis (Eatwell,

Milgate, & Newman, 1991). The terminology of Center and Periphery was first implicitly popularized with the work of (R.Prebis, 1950)⁶.

According to Prebis, the combination of trade imbalances, export instability, and other external factors related to technological transfer, led to uneven development in the world that stemmed from asymmetric power relations between core and peripheral countries. Thus, the only remedy of development through adopting inward directing development and industrialization: *Import Substitution Industrialization (ISI)*.

The dependency approach, emerged from Latin America, has its origins in different Structuralists theories [H. W. Singer, (1950); Singer & Ansari, (1977); Myrdal, (1984, 1986); Frank, (1967); Furtado, (1973)]. However, certain ideas are common among them:

1. The key issue in the world economic order was the unequal relation between developed and developing countries, rather than product specialization;
2. The structure of comparative advantages and countries' relative endowment factors at a given point in time could not determine the future of divisions of labor (Singer & Ansari, 1977); rather, it is the international division of labor is existed in terms of relation between Center and Periphery;
3. The 'peripheral capitalism' was an outcome of alliance and cooperation with the central capitalism, in which contended with other classes within the peripheral state, and thus, was incapable of generating development, as it depended on transformation from the outside;
4. The solution for development, according to dependency theorists, can be achieved if third-world countries to delink from the imperialist center; begin focusing on domestic industrialization.

The 'neo-Marxists' generally associated with the work of (Baran, 1952). In his book 'On the Political Economy of Backwardness' (1973), Baran explained the constancy of underdevelopment within the underdeveloped societies, basing on his notion of 'economic surplus' that part of national income which is over and above the domestic necessities. When that economic surplus is spent on luxury and conspicuous consumption by imperialism-supported governments, the dependency is perpetuated. Thus, the only way out of the impasse was the social revolution by workers and peasants, and the establishment of a new system which could be built on 'ethos of collective effort' (Baran, 1957).

⁶ "Economic Development of Latin America" by Raul Prebis, 1950

The center-periphery approach, up to the time, was valid by many theorists who argued that breaking with global capitalism will allow building a social national economy. However, this development path is ruled out in the new era by the 1980s with the rise of neoclassical economics, with a ‘vision of decentralized development’.

2. A.7 The Neo-Classical Counter-Revolution/ Neo-Liberalism and its Critics:

Keynes’s main argument of the state role in the economy laid aside a massive controversy in the economic theory. The ‘Great Inflation’ of the 1970s, provided significant confidence in the markets’ ability to achieve macroeconomic stability without state intervention. The Neo-classical arose against Keynesianism in which, as they argued, the expectations were absent in the Keynes’s theory, and thus Keynesianism failed to investigate the agents’ behavior that is endogenously formed. They strongly emphasized on the rational expectations of economic agents within a Walrasian general equilibrium framework (Sargent, 1979), (Lucas & Sargent, 1978). Further, the school focused on the negative consequences of fiscal policy, deficit, and public expenditure, in which the structural deficit had been shown negatively affect the output growth, that mainly occurs through ‘crowding out’ effect to domestic private investment, and exports through the interest rate and domestic currency appreciation.

(A) Crowding –Out versus Crowding-In Effect:

The immediate impact of the higher demand created by changes in government purchases is a shift in the AD curve to the right. The additional spending (higher demand) from the government would result in rising spending for both households and firms. The question is, by how much? Two macroeconomic effects cause the size of the shift in AD; the multiplier effect and the crowding-out effect.

In Keynesian model, additional spending by the government would induce investment in the unused production capacity, and then increase spending by private sector as well. Such an increase in government purchases has a multiplier effect on AD, which continues even after the first round. Thereby, there is a positive repercussion, in the form of ‘accelerator’ mechanism, (Skidelsky, 1994). Thus, government demand spurs demand for investment goods; investment accelerator has described as ‘crowding-in’ (Keynes, 1936, p.115). The size of multiplier depends on MPC (marginal propensity to consume); the larger MPC lead to a larger multiplier.

By contrast, the phenomena of crowding out in recent literature have focused explicitly on ‘financial crowding-out’, which occurs based on debt-financed deficit through issuing interest-bearing debt rather than money. In this case, two fundamental distinctions of the crowding out processes can be fit into two groups. One associated with the demand for money for a transactional purpose; ‘transactions crowding-out’, while the second is related to the wealth effects ‘portfolio crowding out’ (B. Friedman, 1978). Crowding-out effect entails that more spending induced by the governments would have no impact on GDP. This argument valid under two main conditions: (1) flexible prices, and (2) constant money supply, and thus the multiplier is almost zero, slightly less, or more (Patinkin, 1976). The two arguments of crowding-in/out focus in the first instance on the real-sector, associated with the fiscal actions of additional government spending-and not on the manner of financing it. The direction of these effects follows even if taxes finance the additional spending.

Further objection to the predictions of the efficacy of fiscal policy is derived from what has come to be known as the Ricardian Equivalence. The theorem states that the burden of government expenditure on the private sector is equivalent, whether it is financed by an increase in taxation or by bond sales. This is because the sale of government bonds puts a burden on the private sector to abide by a future tax liability to meet interest payments on these issued bonds and, where the bonds are not perpetuities, reclamation of the bonds (Buchanan, 1976). However, the neo-classical school had a footprint in the international institutions of WB and IMF, in which the WC became the most elaborated theoretical branch of the general trend of neo-liberalism hegemonic globally in our days.

(B) The influence of and the Critiques on Neo-liberalism School:

In the 1980s, state-led development had increasingly lost the grounds. The school prominently questioned the implied developmental role of government and focused on the efficacy of decentralized coordination by the market (P.T. Bauer, 1984). ‘Invisible hand of the market’ is a central tenet of neoliberal theory, and it is supposed to meet the rationality of participating actors within a perfect -competition market. The core argument of Neo-liberalism is that: underdevelopment is caused by domestic rather than international reasons, arising from (i) heavy state intervention, (ii) miss-allocation of resources, (iii) induced price distortions, and (iv) corruption (Meier, 2000). They argue that through, (i) promoting free markets, (ii) eliminating government-imposed distortions, (iii) Privatization, and (iv) liberalization of trade and exchange rate to improve the competitive efficiency of the economy in the global marketplace, will spur and increase productivity and economic growth.

The economist, John Williamson, in 1989, gave a list of policy recommendations in ten parts that reflected free-market strategies known as Washington Consensus. IMF and World Bank, in turn, enforces and urged these policies, ‘structural adjustment’ programs. Although the WC is not a general theory; rather, as Krugman has called it, a ‘conventional wisdom on economic development’. Yet, it became unchallenged everywhere. The developing countries implemented the IMF and WB’ prescription of the WC through Structural adjustment programs (SAP), and belt tightening measures through fiscal austerity and privatization of most state-owned enterprises. The first and second policies of WC focused on Fiscal Discipline and Public Expenditure Priorities as follow⁷:

1. Large and sustained fiscal deficits are the main source of macroeconomic dislocation in the forms of inflation, payments deficits, and capital flight (1 to 2 percent of GNP being accepted to finance productive infrastructure investment).
2. Expenditures need to be redirected (from subsidies) toward education and health, and to public infrastructure investment.

However, recent political economy of development literature contributed to the fall of Neo-liberalism. The *International Labor Organization* (ILO, 1977) discredited the trickle-down view, arguing that it is ‘unacceptable in human terms and irresponsible in political terms’ (p. 4) to wait for generations to achieve prosperity. Unemployment was viewed as among the major causes of absolute poverty and inequality (p. 15). Further, being developed is a story that emerges within a historical context reflects the evolution of political and economic institutions. (North, 1990) and (1994) challenged the neoclassical framework for development, emphasizing the importance of politics, policy, and institutional arrangements (S. R. Khan, 2014). The state is expected to play a crucial role in framing and enforcing political-institutional factors: choice, incentives, property rights, and the people’s ability and willingness to save and invest, etc. (World Development Report, 1997).

Amartya Sen has also criticized the trickle-down approach. He emphatically showed that countries which have provided basic entitlements and freedom have better development indicators (Sen, 2001). Freedom represents both the principal means and primary ends of development, where participation is the mechanism central to Sen’s approach (Robert Chambers), and the state could facilitate this process (Sen, 1999).

⁷ Source: The Original 1989 Consensus: Ten Commandments (Williamson, 1990)

Finally, Schumacher turned the economic problem on its head. He proposed organizing the economy around maximizing meaningful jobs, rather than maximizing production and consumption (profits and utility), and advocated for a more appropriate employment-friendly approach, ‘using benign intermediate technology’. Such technology, he argued, fitted between primitive and advanced capital intensive modern technology, and could be locally manufactured, maintained, and improved, to address the rural and urban informal sectors’ unemployment problem. According to Schumacher, sustainable development enjoins humanity ‘to ensure that it meets the needs of the present without adjusting the ability of future generations to meet their own demands’ (Schumacher, 1973, P.8). The UN World Commission on Environment and Development, took ecological dimension, which was incorporated in Schumacher’s writing, and pushed forward the sustainable development agenda (UNWCD, 1987).

2. A.8 A Brief Summary of Theoretical Views

Development theory has undergone many changes in the last 50 years. As we have seen in this section, the main drivers for these changes were the dynamics of the international world economy. Starting with the modernization and development school in the 50s until the 70s, considered the high-water mark of theoretical trust in the state’s capacity to lead development, which emphasized on closing the gap of capital in the developing countries, and applying ISI, in order to accelerate the country’s transformation from agriculture to a modern manufacturing economy. From the 1970s, 80s, onwards, the dispute over market and state polarized, and became central to the economics literature. This does not mean that the capitalist market system is a perfect one, or that it works efficiently, or that there is not an important role for government. But it does imply that throughout the world, governments have come to plan less, to own less, and to regulate less, allowing the market instead to expand (Yergin and Stanislaw, 1999).

However, recently, the international community realized that it had not been sufficient to neglect state’s role in development, particularly, after publishing *The East Asian Miracle: Economic Growth and Public Policy* (1993) by the World Bank. The debate over the state’s role in development and industrialization resurfaced in the 1980s and 1990s, in which the experience of NICs is considered a challenge to the mainstream view of the free market economy.

Contemporary developmentalists have insisted on the role of the state as substantial. They stand in contrast to the neoliberal agenda, assuming a good government and efficient economic bureaucracy as an important factors to achieve development. For a successful

industrial policy, they advocate creating winners, not picking the winners, along with institutional development within the market, which entails ‘get intervention right’ not ‘the price right’. In other words, within a context of institutional development, selective government intervention policies will improve market performance (World Bank, 1997; Snowden, 2001b; Stiglitz, 2002).

Finally, it is clear that development in most parts of the world had taken a long time to realize, thus, it is quite important to assert the fact that each country has its own, unique development problems that are determined by both external and internal conditions; political, social, and economical. The neo-classical overlooked the complexity of economic and social system. Thus, the analytical tools of neoclassical approach (of perfect competition, wages and prices flexibility, rational expectation, maximize profit, etc.), seems unrealistic and inapplicable to the developing world, especially in the Syrian context which differ fundamentally from others. Investment does not operate within a free market and free competition context, prices and interest rate in Syria also subjected to the state control, and the private investment decisions mostly determined by political factors and politically embowered classes. Thus, a historical political economy method will be adopted, which reflects the complexity of political and economic factors behind Syria’s development path.

Section –B

State and Development: A Review of Empirical Literature

There is perhaps an enormous amount of literature of cross-country studies based on both panel data and time-series data, using different techniques, which investigated the nature and the direction of the relationship between government, private sector, and output during planning era and reform era. However, the results were found to be mixed and there was no conclusive answer-in both developed and developing countries. Moreover, the importance of an open trading regime to economic growth is yet a controversial point for both free-market proponents and government-intervention proponents. We intend to analyze the literature from two different perspectives, corresponding to the two distinct phases of pre- and post- reform, based on three groups. The first group deals with the debate over market versus state- era of Planning vs. era of Neoliberalism. The second group covers empirical studies relevant to the

impact of government investment on both output and private investment. Last set a review literature that incorporates trade openness as a driving force of development- with particular reference to the East Asian experience is presented.

2. B. 1 Indian economy: Role of State and Liberalization:

As in theory, literature has always been contentious about the proper state's role in economic development. It provides an analytical and empirical analysis over the debate of state intervention versus the free market, driven by dramatic economic events, and the success stories of the NICs. In the elusive quest for growth, the presumption of WC about the new role of the small-government proved little prospect of development- many countries with minimal government intervention did not seem to do well. Accordingly, this section provides a review of literature captured by different scholars and traditions- starting from planning under the influences of Keynes. Second, we consider the neoliberal shift of WC toward a minimal state and their argument of how development could be understood.

The United Nations, since 1950, provided a series of reports and appraisals on national plans in developing countries. It identified the pivotal constraints, 'scarcities', for development in the developing world: (1) The supply of domestic resources required for investment, (2) the supply of key goods- mainly the capital, power and infrastructure, and (3) human resources. What is noteworthy in the report of 1965⁸ is the point that not only there was hardly any ideological resentment towards planning as a tool, but it also goes on state that the formidable constraints and problems of execution as a major reason for any poor performance. It stated that; 'planning is a means of coordinating policies to ensure that resources are continuously utilized more efficiently, and its benefits still largely lie in the future' (United Nations, 1965).

The World Bank in the 1970s was very different when headed by Robert McNamara, it was talking about 'poverty reduction' and Bank as a development institution- 'Redistribution with Growth'. It argued that poor agriculture lacked capital and ownership of assets, hence it was willing to lend for public investments that help small farmers. Labor-intensive production is to be encouraged. Market incentives did not depend on the ownership structure. Its funding portfolio comprised 55% to small farm projects, 25% to water and sewerage, 10% to urban poverty. It even emphasized on Basic Needs Approach. For the McNamara era 'market incentives did not depend on ownership structure' so Bank lent projects which handled by public sector without resisting. The public sector- considered as 'natural monopolies'- was

⁸ Development Plans: Appraisal of Targets and Progress in Developing Countries (1965).

financed by the Bank, like Railways, heavy industries. State played a key role in development for McNamara Era (Waeyenberge. V. E, 2006).

The turn of the decade the Bank policy takes a shift with series of events- 1973 Oil Shock, interest rate hike (Paul Volker era), the rise of neoliberal regimes in US and UK under Ronald Reagan and Thatcher. All these led to the program of reinventing the old belief system- the self-regulating market mechanism and efficient market hypothesis. One can see a clear rise in political hostility to aid /soft loans, a shift of bank's emphasis from project financing to 'policy' financing. Policy lending lent itself to ideological afflictions with right-wing leadership of core shareholders in the Bank (mainly the US). This was consolidated with the appointment of Anne Krueger as a chief advisor in place of Hollis Chinnery (Waeyenberge. V. E, 2006).

Anne Krueger (1974) and Deepak Lal (1994) in their works propelled an attack on development economics as a body of literature that proposed neither substantial nor original than what's there in mainstream economics. And that is comprised, they argued, is a loosely formulated set of mistaken ideas about market failure. Anne Krueger has proposed a thesis of 'government failure' more than 'market failure' with no empirical basis for the comparative analysis. Subsequently, World Bank has reformulated its agenda in the 1980s. In a consultation meeting, the British economist John Williamson coined the term 'Washington Consensus' which professed the Ten Commandments for successful growth. There is clear disappearance of 'poverty' from the aid agenda, to narrowing development to growth and imposing of conditionalities to implement the new agenda on any country that approaches IMF for any loans (Killick. T, 1995). During the 1980s WB launched its 'structural adjustment' program, enters into dialogue with borrowing countries about policy reform. Earlier project funding (tied) now gives way to untied policy funding.

How necessary and important were these reforms based on Washington consensus to India? While India's experience with planning had been long since its time of independence, based on a mixed economy, guided by the principles of democratic socialism (Planning Commission, 2001), with a commanding heights of the public sector in directing the economy towards modernization, self-reliance and social justice' (Ibid, 2001, P3). The experience stretched for over forty years up to 1991 when India took another historical step and embarked on comprehensive reforms. Neo-liberal writers argued that India's development planning system has not been very successful in the sense of economic achievements - these did not settle all of India's socio-economic problems. Bhagwati (1994) claimed that, 'India, during the planning era, was unable to win the poverty war with a yearly growth rate that did not exceed

3.5%'. However, he admits that India's landmark achievements during the planning era were in the agricultural sector and life expectancy ratio. Opposite to this view, Chakravarty counters the critique on planning, arguing that judging a plan requires full cognizant of socio-economic factors and constraints that planners had to take into consideration. However, there is an acknowledgment from both sides that development planning allows for a radical transformation of the structure of the economy, not only in agriculture but in the nature of industrial activities as well.

There is a considerable body of protagonists for economic reforms and its success which includes scholars like Ahluwalia, (1991, 1998); Bhagwati, (1994); Virmani, (1997); Mohan, (1999); Srinivasan, (1998); Joshi & Little, (1996); Parikh, (1999); D. Tendulkar, (2007); Panagariya, (1998, 2000), and many others, argued for economic reform at all levels. Their argument was established on the plea that planned development in India since independence up to 1991 had confined the economic growth, and the existence of the public sector- large state role, has weakened the private sector investment and its institutions. Thus, reforms have removed the distortion created by government restrictions, and the private sector to guide development and achieve a higher growth.

Further, according to them, trade liberalization and lowering the barriers (tariff and non-tariff) have promoted trade across sectors in India and increase productivity, and thus, the competitiveness of India's exports. The trade liberalization policies had led to a humongous inflow of foreign direct investment to a tune of \$360 billion over a decade and a half, thereby ending of India's endemic problem of foreign exchange shortage contributing to accelerating the economic growth to eight plus rate of growth during 2003-10 (Panagariya, 2008). Tendulkar and Bhavani (2008) argued that economic reforms have broken the hold of interest groups on the Indian economy, wherein the big business, blue-collared workers and bureaucrats had staked their majority claim through license-quota-raj, state policies instead of creating competitive conditions, fed this alliance, flittering away the meager resources of a poor country. This has resulted in a poor rate of growth of 3.5 percent in the period 1950-81. In the later period, farmers and small traders also joined as interest groups, which state had favored in the 1980s, but this time through fiscal overrun. The economic reforms of 1991 are argued to have done away with these vested interest groups and corruption, and of the bureaucracy, to give way for a competitive economy. Joshi & Little (1994), Bhagwati (2003), Srinivasan (2007), Panagariya (2008) also maintain this narrative. This is often known as the 'New Political Economy' narrative, which is begun by Anne Krueger.

On the other hand, the proponents of planned development argued that the Indian state had established physical investment for the industrial capitalists- those are essential pre-conditions for their development such as (Mundle, 1974), which analyzed the impact of state intervention in the deployment of resources for development in India in the planning era. He concluded that the two sets of economic policies: (1) public investment and (2) state's financial operations, had geared principally towards promoting the private sector accumulation of industrial capital (big indigenous bourgeoisies) who were, along with landed classes, the dominant partners of ruling class alliance (Mundle, 1974, p16). Similarly, (Mukherjee, 2002) also found that Indian capitalists were in need for the state to take a leading role to provide infrastructure at the early stages.

The position that economic reforms had accelerated by the supporters of economic reforms of 1991 has been well challenged empirically. Deepak Nayyar in his seminal article written in 2005 shows that in the long term data on India's growth during 1991 (when the series of 1981-2003 is examined), that structural break does not exist. He notes that there is a structural break found in 1981, where the economic growth has crossed the 'Hindu Rate of Growth' for 3.5 percent during 1950-91 to 5.8 percent during 1981-89. By drawing one century data from the study of Sivasubramanian (2000), Nayyar finds that indeed if one takes a century-long data of 1900-2000, there is a structural break in 1950, pointing to the fact that there is a break from the colonial stagnation. Thus it is not only fallacious to compare a previous period of 1950-81 to 1981-2000 to argue that growth has improved. The period of 1950-81 should be compared to either its previous period or with the growth experience of any other comparable country of that period. Hence, what India achieved during the planning period during 1950-81, a 3.5 percent growth rate is much higher than 0.1 percent stagnant growth during 1900-50. The growth achieved during 1981-91, which is higher than that of 1950-81 could not have been possible without the acceleration in the previous period. Thus growth has been cumulative, one cannot argue that the planning period performed poorly by the reform period. One is built over the previous one. This is further confirmed by Nagaraj (2007); Balakrishnan, (2007); Mitra, (2000); and Kohli, (2006).

Further, there are scholars who had argued that the economic reforms have resulted in increased income and wealth inequality, an increase in poverty during 191-2003 and rural farm distress such as Reddy and Mishra (2012); Vakulabharanam (2012). The Report on Unorganized Enterprises argued that the conditions of unorganized workers have continued to be poor and social costs of health and education have gone up. Another strand of literature questioned the reform where the state withdraws substantially from implementing public

investment programs and protecting traditional petty producers. The effects of these changes are quite evident in the agricultural sector, which suffers a lack of credit, a rise in input prices, and price fluctuations in the domestic market (Patnaik, 2016) and (C P Chandrasekhar, 2000). Moreover, in 2010, Ghosh provided evidence of the persisting food insecurity of the bulk of the population in India. She argued that is the case as a result of neglecting agriculture over the two decades after 1991; lack of public investment in agriculture and agricultural research; poor yield; falling productivity; and trade openness (Ghosh, 2010). Bardhan, (2005) discussed the two opposite sides of reform agenda. According to him, the pro-reform scholars fail to spot the equity-efficiency trade-off while the other side concentrates more on basic socialist goals. However, enhancing equity could be achieved through improving public health and education, land reform, and reorganizing the credit market.

Rakshit (2009) questioned the very application of mainstream economic prescriptions to an economy that has not yet undergone a structural transformation and is dominated by an informal sector. The idea that macroeconomic adjustments through mere monetary policy and fiscal disciplines are far from what works for India. Concentrating merely on inflation targeting and realistic exchange rate is unlikely to generate a sustainable rate of growth. He argues that understanding structural issues is central to produce a stable and desirable rate of growth. It is important to see that the growth rate would also uplift the living standard of the ordinary, which is possible only through an increase in real wages. Demand depressing macro strategies to maintain inflation and exchange rate can adversely affect the incomes of the informal sector. Why have fiscal deficits in India have increased since the 1980s? Joshi and Little (1994) argue that the Indian state was indeed prudent on fiscal front till the 1970s. But it tended to be a soft state, the burden of indiscriminate expansion of the public sector, which is used to create demand, instead of increasing productivity of the industry is argued to have resulted in fiscal profligacy. Hence the economic reforms were the opportune movement to roll back the state and impose the much needed fiscal discipline through special legislation and new financial architecture.

The financialization through equity markets are to raise savings for the raising resources which are believed to be self-governed towards efficiency. This position is equally contested by the adversaries. Patnaik and Chandrasekhar (2008) argue that Indian state being a soft state in tax collection and abettor of tax evasion is a part of the class character of the state, which is incidentally building a proto-capitalist class, beyond the traditional, at the expense of state exchequer that invariably reflects in fiscal indiscipline. This means the Indian state will continue to increase its tax-GDP ratio, given its softer nature towards taxpayers, specifically,

the direct taxpayers. It is also argued that mere fiscal deficit is not a problem, but the composition and the way it is utilized matters to a large extent. If the deficit financing is resorted more to create revenue expenditures, and less to create capital assets, then it will certainly be disastrous in the long run. However, if it is utilized for capital assets and the returns are higher than the interest rates, then it could be well sustainable (Bhaduri and Nayyar, 2005; Rakshit, 2009).

Atul Kohli (2006) in his work on politics of growth argues that the economic reforms in India have not resulted in any pro-market strategy to result in enhanced productivity gains based on the competitive environment, instead what resulted was the pro-business strategy, where the old monopolistic firms given their proximity to the state were facilitated to undertake capital formation. The implication is that this explains why India did not emerge as a manufacturing power, as the Indian industry did not become globally competitive, which characterizes the nature of liberalization. This also makes the system to generate 'crony capitalism' which could be detrimental to the institution of capitalism itself.

In short, while there are influential protagonists of economic reforms, there is an equally strong voice of critics are not a panacea for the problems of the economy. There are those who argue that one need not pit state investment against private investment always. And cut in public investment rate would drop and lead to a shrinking of the capital goods sector and thus the growth rate; trade liberalization would displace locally produced goods and reduce productivity. On the other hand, proponents of reform have argued that the adoption of reform policies and liberalization would lead to high productivity, a high growth rate, and reduced poverty. However, proving these arguments empirically and draw any simple conclusion seems to be equally challenging. The evidence presented is often mixed, and the process of development in any society is often contradictory and complex than the proponents of reforms and Washington Consensus (WC) argue, especially with the experience of East Asia miracle.

2. B. 2 Syrian Economy: Role of State and Liberalization

There are few studies on Syrian economy in Arabic literature that have examined the development planning, economic reform process and economic outcomes in Syria. Syrian economic growth trends over the past three decades showed an extreme fluctuations, in which it exhibited a high rapid growth rates in the seventies and a negative growth rate by late 1980s. The economy proved to be highly sensitive to the external factors and subject to geopolitical

constraints, which revealed its rental nature⁹. Habib (2006) asserted this issue and found that, except for agriculture and oil industry, the growth of other sectors in the economy was declining, reflecting the dependency of Syrian economy on the former.

There is a considerable number of proponents of planned development and its success Ibrahim (1985); Al Hamash (2006); Zaki (2000); and others argued that the high economic growth during planning was a result of the existence of the large public sector- large state's role in the economy (measured by total expenditure to GDP ratio), which was necessary at that time to accelerate the development process. According to them, Syrian state had established massive investment and expanded its role substantially through direct intervention in the economy and employment programs, along with direct investment in health, education, culture, media, housing, infrastructure, dams, irrigation, etc., in an attempt to achieve full mobilization of resource. Further, they emphasize that Syria's landmark achievements during the planning phase were in the government services sector (health, education) and life expectancy ratio. Similarly, Habib (2006) in a study of the main determinants of GDP growth in Syria over the period of 1963 to 1980, using Cobb-Douglas production function, he found that the direct productive interventionist role of the government has raised the average annual growth rate from 2.6% in the period (1946-1963) to 5.2% in the period (1963-1980).

However, the resources base during the planning phase (1970-1990) was the foreign saving (geopolitical aid, oil revenue, and soft loans from USSR)¹⁰. Sukkar (2000); Dagher (2006 , and 2007); Al Hamash (1992); Al Naial (1998); and many others hold the same conclusion about the role of external financial aids and loans that poured into Syria after 1973-war in accelerating the growth during this phase; it was at the flurry of prosperity during the Gulf boom (Seale, 1998). Yet, the high growth of 10% during the seventies in Syria is accumulative in nature, dated back to the nationalization programs of the late fifties carried out by the Unity Government (Syria and Egypt). This suggests that Syria was a part satellite country, dependent on Soviet aid, which is bound to fall into crisis after the Soviet fall in 1989.

Ghaiba (1990) analyzed the impact of state intervention in the deployment of resources for agriculture development in Syria in the planning era, he found that the government implemented a successful land reform programs and improved the agriculture output, via huge investment in irrigation system (Euphrates Dam), and expanded food production in less-

⁹ Syrian economy, for many decades, was dependent on oil revenue; the transit oil revenues; Gulf Arab aid flows and Soviet Union aids; and remittances, and thus not on production factors or productive forces that will allow for steady and long term growth.

¹⁰ Syria resorted to concessional long-term debt, which was 12,918 \$m in 1986 (80% of this loans was from USSR)

developed areas in the southern and eastern part of Syria. Further, the self-sufficiency in food production especially in wheat and cotton was achieved by late eighties. During planning phase, by 1976, Syria was the tenth largest cotton producer in the world and the fourth-largest exporter (Congress Library).

On the other hand, the proponents of reform argued that planned development in Syria had not canceled the private sector, but it had weakened it. According to them, the private sector's role had been transformed into a contractor or subcontractor to the public sector, and was confined into small workshops and small industries (H. M. Al-Amash, 1992). Thus, the private sector was looking for a better opportunities in which it substantially increased in the construction sector, which had grown three times more than of agriculture sector (Ibid, 1992). They further argued that the source of growth during planning was a result of capital only while the roles of human resources and TFP which reflects the technological progress were absent (Murabati, 2005) and (Saeed, 1986).

Al-Emadi (2004) and Sukkar (2000) provided evidences of the different factors that led to the end of the high growth phase by mid-1980s. They argued that the mid-eighties crisis has three dimensions: (i) external; related to the dependency of Syrian economy on external rental resources of oil and aids, (ii) strategic; related to the geo-political role of the Syrian state, and (iii) internal, related to the performance of the economy and its institutions. Yet, one should recognize the debt burden of developing countries including Syria in which the interest rate increased significantly, leading to a significant rise in the dollar exchange rate between the years 1980-1985 in Syria, which put an inflationary pressure and increased the size of the external debt (Habib, 2006).

Further, in the eighties, Syria faced a period characterized by a cracking of regional system and the dominance of divisions and polarization, especially in the first half, Syria was called the 'besieged castle' and it appeared to fight on all internal and external fronts; it was in a direct military war in Lebanon on June, 1982 (Abdel Nour & Arbash, 2006; Sukkar, 1987 and 2000), along with another front against 'Brotherhood' movement in Syria. Thus, political factors were as much important as the economic factors ended by a debt crisis. Besides, organizational and institutional factors such as central bureaucracy, weak and inefficient management, corruption, etc., have contributed to the crisis (Suleiman & Musabah, 2005). Al Hamash (1991) studied the structure of Syrian exports and imports and their geographical distribution, he found that ISI led to increase the import rather than reducing it and worsened the balance of payments. The imports grew between 1974 and 1978 at a higher rate than that of GDP growth, and well above the rate of exports. The manufacturing imports in that period

increased by 332%, without machinery and equipment, they rose from 90m Syrian pounds in 1974 to 1898m Syrian pounds in 1978, which affected the trade balance negatively. Thus, the main problem of the weak export competitiveness of Syria from the one hand, and the weak productivity of manufacturing industries on the other hand, had been at the heart of its economic underdevelopment.

Following the crisis, the market economy viewed as a saviour from the crises, which encouraged some economists, such as Sukkar (2000), Sukkar (2003) and Arbash (2006), to call for a market economy and trade liberalization and gave the private sector the higher role in the economy. They argued that trade liberalization and relaxation of (tariff and non-tariff barriers) would promote the trade across sectors in Syria and increase productivity, and thus, the competitiveness of Syria's exports. However, reform program at this stage was gradual, diminutive, and selective. Abrash (2006) argued that selective economic reforms gave the hold of interest groups on the Syrian economy, wherein the big business and bureaucrats formed an indirect contract related mainly to the debt clearance program or the export program to the Soviet Union. This has resulted in a poor rate of growth of 2.45 percent in the period 1987-90. Although Syria was able to manage the crisis and achieved a trade surplus; yet, Al-Emadi (1990); Khouri (1990); Al- Shallah (1990) saw that trade surplus was interim due to 'fragility' of its source as it was linked to a ready available Soviet Russian market on quantitative base to close the debt with Soviet Union. The Investment Act (No. 10) was the most prominent outcome of this phase (Al-Emadi, 1991). The Act no.10 represented a relatively flexible re-formulation of the economic system in Syria based on market-led and private sector initiatives. Yet, Investment Act of 1991 was unable to attract the private sector to invest in the manufacturing industry (Abdel Nour & Arbash, 2006).

Habib (2000) explained the low growth rate in the second half of eighties in in terms of decrease in TFPG in the manufacturing sector. The private sector that had showed a rise from the investment law was because of tax exemption and investing in less risky type of investmnet.

The market reform in the 1990s has remained relatively independent from International Financial Institutes, where Syria preferred the path of self-reliance through the 'economic pluralism' approach (Al-Emadi, 1991). While the second phase of reform launched with the new regime by 2000 was sup-ported by non-financial assistance of international institutions.

However, the reform decision was not smooth and the government was not unified around specific agenda for reform. This period revealed the sharp disparity between the socio-

economic trends of Syrian parties, and difficulties of settlement among them on the main issues of reform, liberalization, and privatization. Discrepancy was clear between three main orientations of different parties, which had a special importance from the perspective of the political economy of reform that had taken place in Syria by early 2000s. First, the developmentalists (the middle way), who advocated the developmental role of the state, based on the East Asia experience and focused on its interventionist role (Al Zaeem, 2004) to guide the private sector, and others argued for empowering the economy before liberalization process (Al Hamash, 2004). Second, the communists, who feared restructuring process which could be led to privatization and labor layoff, and argued against public sector restructuring and trade liberalization. Third, liberalists, those who saw the private sector a locomotive force of economic growth in the context of state facilitation and policy-driven incentives (Sukkar, 2000, 2004, and 2006). However, by the end, the government adopted the 'cyclic indicative planning' by the 10th plan within the framework of 'social market economy', the principle launched the mechanism of market economy and its institutions, while the state has to play a regulator role, and interfere in the overall objectives and strategies of national economy, and also directly invest in vital projects. Social market economy was Syria's strategic choice (Al Zaeem, 2005).

However, after two decades of reforms, Al-Deen and Zaman (2006) found that until 2005, despite freezing of employment programs, the government sector, employing more than 26% of workforce. Further, the Central Bank of Syria reported the unemployment rate registered 8.2 percent in 2009, and poverty rate step up from 30.1 percent in 2004 to 34.3 percent in 2010 according to UNDP (2010). Al-Kadi (2006) argued that the government had liberalized the tax system making it softer and in favour of big private business groups. Seifan (2010) and Barout (2011) argued that investment in the industrial sector was lagging behind in the capacity utilization, and productivity, and wages had declined during the reform period. Mater (2016) argued that the fruits of liberalization process was grasped by a few at the expense of the others. The private investment increased substantially after 2000, but yet the state failed again to prioritize the productive sectors with a potential global competitiveness, rather, the investment channelled into real estates, especially from the Gulf investors who allowed to own land.

2. B.3 The East Asian Experience: What is the developmental state

The experiences of Japan and the East Asian-NICs provided empirical evidence against the claims of WC of minimal state's role and trade liberalization as a prescription to achieve rapid growth and development. Different studies have tried to identify the factors that have contributed to NICs' success with special reference to the interventionist state. Before reviewing the main studies in this regard, it is important to acknowledge the recent development in economic theory; the theory of 'international trade'. It demonstrated a different story of state intervention in trade policies than the mainstream, as practiced by the Newly Industrialized Countries (NICs).

It is interesting to note that two of the World Development Report of 1993 and 1997, one on poverty and another on the East Asian crisis underscored the importance of state intervention, even though in different contexts. The first one is over the continued necessity of the state for bringing down extreme poverty, while the latter is over the role of monetary policy in regulating the speculative markets. This could be a turnaround from the contributions of development economists like Amartya Sen, who emphasized that growth has no guaranteed trickle-down effects, instead the state should provide certain entitlements and capabilities in human capital. Krugman, (1993) and Stiglitz, (1994, 2016) summarized some of the significant changes in perspectives concerning the state's role in development in the last thirty years; (1) market failures are deep and pervasive; (2) the response to government failure could be through improving the performance of government rather than restricting its role; (3) the focus should be on increasing the government capacities. Atul Kohli (2004) reconstructed the - 'developmental state' from his study of Korean and Taiwanese states refutes two assertions made in the literature: first that East Asian countries followed a pro-market strategy to succeed in accelerated growth, second he strongly argues that these stand as examples of how state intervention does not necessarily result in development failure- asserting that success or failure depends on *effectiveness* of the state's.

There are several studies had raised the issue of free market versus state interventions based on the experience of some of East Asia countries. The study of Wu (1987) for Taiwan and Korea; Lam (2000) for Singapore and Hong Kong; Brown (1993) for Malaysia; Parnini, (2011) for Korea, and so on. The common point that these studies made is that owing to the strong role played by the state, the high real output growth per capita is maintained in these countries, strengthening the internal environment and supporting in the external context. It is

the protectionist environment that the government provided to sustain entrepreneurship to take advantage of a much larger world market within the export-led growth framework.

Rodrik (1997), stated that the state intervention is a major determinant of growth, based on an examination of six export programs in six countries, and also reported that many economists and policymakers had failed to note the importance of maintaining social safety, which is an essential ingredient of a market economy and not a luxury. Further, the recent global economic crisis of 2008-9 stands as a testament to the failure of the grand experiment of Globalization led by neoclassical doctrine. Iwai (2009), following Wicksell and Keynes, argued that capitalist economy was always subjected to a trade-off between efficiency and stability- due to its speculative nature. In addition, the performance of Latin America and other countries, after truthfully adopted neoliberalism, have lagged behind other countries in which they pursued unorthodox hybrid strategies of state intervention and economic openness together- such as Vietnam, China, and India (Amsden, 2007).

Among these two patterns of state, one can find a 'mixed' states - like in Brazil and India, as discussed in a comparative political economy framework by Sirohi (2017). He concluded that the Brazilian regime had created a way to inclusive growth in which it had interfered in the labor market and channeled public investment into human capital, and appealed for more redistribution schemes. While India's approach became dependent on low wages and low rate of employment. The difference between the two is related to the successfulness in embedding pro-capital policies and fracturing political opposition in India. While the PT party, which came into power in 2002, has developed an institutional recognition of pro-poor policies in Brazil. Bardhan (1990) also raised the importance of change of regimes to reorient policy directions. He asserted the importance of the historical and international conjunctural factors which played an essential role in the path-dependent process, which cannot be fitted within a general theory.

Finally, Breslin (2009), argued that in Europe, Japan, and the USA, all governments had interfered in their trade policies and put barriers to protect the agriculture and industrial sectors. His core argument was that the developed capitalist democratic countries trying to urge trade liberalization and free-market on other developing countries that they don't tolerate at home. Similarly, (Reinert, 1999) described the government's boosting growth policies in Western societies and concludes that state was a promoter of economic growth in those societies. Ha Joon Chang vociferously argues that WC is stratagem adopted by the advanced countries to deny the developing countries the strategies of protection that themselves had used in the past (Chang, 2007).

In sum, state has been and is likely to remain of central importance in facilitating growth and distribution in the developing world. It is the way of organizing, and using the state's power that would have decisive influence over the rates and patterns of development and industrialization (Kohli, 2004).

2. B.4 Public Capital, Private Capital & Growth:

Several studies have attempted to examine and investigate the public capital's impact that implemented by the governments, on private capital expenditure and economic growth directly/indirectly, using different static and dynamic approaches. In this section, we focus on that part of the empirical literature, which specifically examined the relative impacts of both types of capital on economic growth, with a distinction between developed and developing countries. Private and public investment's relative importance usually has two dimensions in the process of development: (1) the differential impact of a unit of public capital spending versus that of private capital spending; and (2) the complementarity or substitution (crowding-out) between the two types of capital. First, we review studies that have focused on analyzing the effectiveness of public and private capital, using different approaches and models. A brief review of the crowding out/in hypothesis is presented next.

(A) *Public, Private Investment, and Growth:*

Although most of the empirical investigations of the factors that influence economic growth focused on aggregate investment, as a crucial factor for economic progress- using the neoclassical production function; yet, the empirical research on the relative importance of public and private investment on economic growth are relatively scant. It was the pioneering work of Arrow and Kurz (1970), and the contribution of Aschauer (1989, 1990) and Munnell (1990, 1991, 1992), that introduced public capital as an input into the aggregate production function. Aschauer (1989a, 1989b) provided preliminary answers on the effects of government investment. Using Cobb-Douglas approach for the US data from 1949 to 1973, he examined the non-military capital spending done by the US government on private investment level and its profitability. He concluded that public investment is not *neutral*: the public investment increase would cause a private investment falls, but the fall is small and by some means, it rises its profitability through increasing productivity.

The study of Aschauer puts forward a new perspective of government spending as it serves as a factor of production for the private sector. The literature that followed found a significant relation between public capital and growth: Munnell's (1990a) reported an output elasticity of (0.31 to 0.39) per unit change of public capital; Lynde and Richmond (1993) reported a 40% drop in private capital productivity, as a result to a fall in public capital-labor ratio; similarly, Baxter & King, (1993), within a neoclassical model, reported a multiplier effect that exceeds one; Eberts (1986), using a sample of 38 SMSAs, also found public capital stock is an essential factor that contributed to the regional economic growth.

Compared to the results of the first wave of papers surveyed above, another strand of studies Jorgenson (1991); Kuper & de Haan (1998); Romp & de Haan (2005, 2007); and Pereira & Andr  z (2013) criticized the earlier group for methodological issues. Ramey & Shapiro (1998) based on data on US economy, after WWII, reported that while the output increase, the product wages, the private consumption, and manufacturing productivity fell, in response to military buildups in the US. More recent studies, using VAR model to the US economy, proposed by Sims in 1980, Blanchard & Perotti (2002); Perotti (2005); Zandi (2008) found that the fiscal multiplier for government capital spending was higher than other types of public spending or tax cuts. Several studies that followed using recursive VAR, like Pereira (2000, 2001a, 2001b); Erden & Holcombe (2005); Zou (2006) public investment in the core infrastructure would enhance the private investment productivity, and thus stimulates the growth. Similarly, Perotti (2011), Auerbach & Gorodnichenko (2012); Dreger & Reimers (2013); showed that public investment is crucial factor for development, as a lower level of public investment would negatively affect the private one. The World Bank (2007) documented same results with more focuses, not only on infrastructure, but also on health and education spending in particular.

Some studies tried to test fiscal policy efficacy under different countries' characteristics, and different sample periods within the VAR setup, taking into considerations the institutional information on tax and transfer systems. For example, Caldara & Kamps (2003), OECD countries; H  ppner (2001), Germany; Kuttner & Posen (2002), Japan; and Perotti (2004), OECD-22. Other studies relied on Recursive VAR Approach, based on Cholesky decomposition to identify fiscal policy shocks, like Alesina, Ardagna, Perotti, & Schiantarelli (1999); Favero (2002); Fatas & Mihov (2001). However, the results were found to be mixed, and could not be generalized to one single relationship, which means that the nature of the relationship between the economic growth and the public investment's level varies significantly across major industrialized countries, and over time. In contrast, within the co-

integration framework with long-run estimates in the Euro area, and panel VAR mode, Dreger & Reimers (2016); Marattin and Sallotti (2011) found that private investment and GDP growth had been restricted by lack of public investment, which contributed to a deep recession in the euro area. Similar result reported in the work of António Afonso & St. Aubyn (2018) in the OECD-17.

(B) Public Capital & Crowding-out/in Effect:

The answer to the crowding in/out question remains purely empirical, owing to country-specific conditions and other methodological techniques used. Thus, we focus on the developing countries in the reviewed literature.

Although the majority of empirical crowding out/in research using the SVAR and Co-integration has been directed to the United States and other developed countries; however, findings proved *no* firm conclusion, and did not end doubt or dispute of link and directional relation between government and private investment. Yet, the more recent studies in the developed world that examined the effects of fiscal policy shocks, following the financial crisis of 2008, in a broad sense, found that government spending shocks to have a positive effect on GDP. Such studies like Afonso & Sousa (2012); Afonso & St. Aubyn (2018), in the case of different developed countries; Pereira and Pinho (2011) in the case of several countries in the European Union; Creelet, al. (2015) in the case of France, US, UK, and Germany. Likewise, Dreger & Reimers (2016), in the euro area, the economic growth had benefited from fiscal reform, however, a simple reduction of capital spending is not sufficient alone, and there should be a long-term agenda for fiscal reform to bring the required changes and support the growth.

Developing Countries:

Important investigations are carried out for many developing countries, based on cross-country and country-specific Data. Khan & Reinhart (1990) used aggregate production function approach for a sample of 24 developing countries, where results supported the debate over market-based reform; private sector's role is more important than the public one in the economic growth. However, the study has looked at the direct effect, and ignored the indirect effect (the complementary role between two capitals). Khan & Kumar (1997) re-tested the relative impacts of two types of capitals on output, for a sample of 95 countries (all are developing). Their conclusion was in line with the previous study.

In contrast, other studies based on samples of developing countries had reported a positive relation between private and public capitals. Phetsavong & Ichihashi (2012), using a panel data from 1984 to 2009, for the sample of 15 developing Asian economies, found that at a certain level, public investment contributed positively to the private investment; however, as it overtook a certain level, it led to a crowding-out effect. Arslanalp, Bornhorst, Gupta, & Sze (2010), for a sample of 48 countries (OECD and non-OECD) throughout 1960-2001, the findings supported the argument that changes in public capital stock can explain growth differences across the 48 countries. Although, the elasticity of output with respect to public capital is positive, it depends on time intervals and depreciation rates. In the study of Mahmoudzadeh et al., (2013), which included 38 developing and developed countries, he reported a positive role of public capital with respect to private investment in the former; and a negative role in the latter. Similar results were reported in a study of Gupta, Kangur, Papageorgiou, & Wane (2011) in the case of 52 developing countries, they also they showed that public capital is a significant contributor to economic growth, and the marginal product of public capital is larger in the low-income.

In terms of *country-specific analysis*, Ghura (1997), for the Cameroonian economy, reported a higher contribution of private investment compared to the public investment to economic growth. While for the Mexican economy, Nazmi & Ramirez (1997) reported a crowding out effect, and for the nine major Latin American nations, healthcare and educational spending by the governments had affected the private investment positively and promoted the economic growth directly. In the case of Turkey, Şen & Kaya (2014), for the 1975-2011 period, divided the government spending to its major components, and reported the effects of each one on private investment. The paper demonstrated that all components, except the capital one, had a crowding out effect. Sundararajan & Thakur (1980) conducted a model for India and Korea, by incorporating various channels of influence, from 1950 to 1978. the study reported a short-term crowding-out effect, yet the effect is likely to be compensated in the long run, by raising the productivity of private capital stock and creating demand for the output of the private sector, and thus, supports the output.

Studies specific to India:

Within the Indian economy, substantial investigation has been devoted to measuring the relationship between public and private investment, using the production function and VAR

approaches, as few restrictions can be imposed in the latter. We review a number of studies based on the results of their findings: crowding - in, and crowding - out.

In a general equilibrium model (CGM) of 18 sectors-17 commodities (over the period of 1960-81), using yearly time-series data, Pradhan, Ratha, & Sarma (1990) reported two main conclusions. First, the crowding out effect exists, however, the extent of it depends on the modes of financing- it is found to be the highest when it was financed through market borrowing. Second, although a decrease in private investment was reported, but also there was an increase in the total investment in the economy, suggesting that stepping up with a positive impact of public investment on growth. Further, an increase in public investment, when combined with wage indexation, also improves income distribution. Thus, the crowding-out in this study is partial, and it need not to be undesirable, as the total income had increased. However, the authors used only one year lag structure in the model between the investment and the output. The complete absence of crowding out effect was found in a study of Kulkarni & Erickson (1993). They discussed the Indian expansionary fiscal policy effects, using OLS analysis, on the private investment expenditure, general price level, interest rate, and exchange rate. All independent variables are introduced within one lag. Data over the period 1961 to 1988 (28 observations) was used, and the results failed to show the existence of traditional crowding out, and the estimated coefficients of CPI and Interest rate have positive and negative signs, respectively, as expected. The authors argued these results are justified, since both government and private investment were increasing during the given period. However, the authors used total public investment with no distinction between different types of public capital. Following this study, Serven, (1996) distinguished between two types of public investment- infrastructure projects, and commercial and industrial projects, on annual data from 1960/61 to 1993/94. Serven's empirical results showed that there is a crowding-in effect in the long run for the public capital in infrastructure, while other components have a negative impact. But in the short run, all components of public spending seem to have a crowding-out effect.

A more recent study done by Mallick (2002), used an endogenous growth model with aggregate demand function, within a multivariate co-integration framework, based on yearly time series data over the period (1950–51 to 1995–96). The study reported the key factors to long-term growth in India as follows: public investment, human capital, real interest rate, and domestic credit. The empirical estimation based on the ECM model revealed a direct and indirect (via private sector) influence of public capital on output. Moreover, the author reported that cutting back the rate of capital spending of the Indian government may have serious

damage to economic performance. More different and recent studies on Indian economy done by Murty & Soumya (2007); Dash and Sharma, (2008); Tulsidharan (2006); and Khundrakpam (2001), have confirmed a positive influence of public expenditure on private investment and output in long-run.

On contrast to the above reported results of crowding in effect, another strand of literature, in SVAR and VAR specifications (by applying one standard deviation shock in the short -run), reported a crowding-out within Indian context like Mitra (2006), which used the same approach of Blanchard and Perotti in 2002, over the period from 1970 to 2005. Although Mitra reported a crowding out effect in the short run, but also found that in the medium and long run the impulse response of private investment gradually rises above zero, and thus, the complementarity between two types of capital in the medium and long run. However, the author did not investigate the potential medium to long run benefits of public investment on private one.

In general agreement with Mitra (2006), a study of Bahal, Raissi, & Tulin (2015) with the year 1980 as a breaking point. The study reported that public-capital accumulation crowds out private investment in India over the entire period of 1950-2012; the opposite is true when the sample was restricted to post-1980. The study used only three main variables of GDP, public, and private gross fixed capital formation, measured in real per capita terms (in 2004-05 prices), while it ignored other factors such as interest rate and credit size that could affect the private investment (as mentioned in Mallick study in 2002). Similarly, Sahu & Panda (2012) reconsidered the crowding-out hypothesis (1970-2010). Empirical evidence suggested that GDP and public investment has a long-term effect on private investment; it is positive for the former but negative for the latter. The short-run effect was reported negative but statistically insignificant, whereas GDP is positive and significant. The authors used GDP deflator to get the real term FCF for the private and public sectors, rather than FCF deflator; however, the study reported an optimal lag of (1) and estimated EC model at order one as well. Dash (2016) expressed the public investment as a ratio of GDP in India during 1970-2013, and used the ARDL model, in which the study reported a decrease in private investment by 0.81 and 0.53 percent in response to an increase in public capital by one percent in the long run and in the short run, respectively, during the study period. Further, the author concluded that the crowding-out effect reduced during the post-liberalization period. Raj, Sahoo, & Shankar (2018) attempted to examine the main determinants of investment activity (private and public together). The study reported that domestic economic activity drives the investment in India,

followed by a real interest rate, and the fiscal deficit impact on investment demand turned out to be negative.

2. B.5 Conclusion:

The above literature survey highlighted some important issues. First, the main argument in this review is that state-led development has been more influential than the dominant orthodoxy before 1991; however, in the wake of the economic crises of 2008, the neoliberal model of development not only lost its ground, in which the states have to put their neoliberal principles aside, to prevent total collapse and spur recovery in the world economy, but also failed to achieve the anticipated results in the ‘south’. Second, while the NICs experience is clearly unique, in the form of ‘relative state autonomy’ of bureaucrats in developmental state, it draw the attentions to List’ argument about the role of governments imposing national interest over those of individuals. As such, the neoliberal project can be seen as a misguided attempt to impose theoretical clarity on what does not exist in reality, and/or the dominance of economic (mathematical) models in contemporary debates.

Third, the empirical literature on the relative importance of public and private investment on economic growth, and the crowding out /in hypothesis for both developed and developing countries revealed mixed, and in some cases conflicting evidence, as the empirical specification played a crucial role- where the impact comprised both static and dynamic reactions. There are clear and general observations in both economies (developed and developing); public investment is a crucial factor, particularly in core infrastructure to economic growth, within the advanced economies, and at different compositions and levels within the developing world. The proportional contribution of public and private investment to the economic growth varies a lot, due to different factors, which were specific to the country under study, the sample chosen, and the methodological approach adopted. To what extent the government investment affects the private investment, also depends on a cluster of political and institutional factors (e.g., democracy, corruption, political stability), as well as on macroeconomic variables and the degree of openness.

Fourth, in regard to the methodologies adopted, recent studies largely based on VAR methodology, however, this approach is highly sensitive to the identification problem of the fiscal shocks, and estimates only the short-run coefficients. While in the case of using EC models, most of the authors restricted the variables to three in order to avoid more than one co-integration equations. However, the results in such cases mostly biased and cannot be taken as a guide to policy completely. Finally, in regards to fiscal policy, particularly government

capital formation, as an instrument along with private investment to promote the growth process had been analyzed in the developed countries, whereas in the case of developing countries (like Syria), few studies are covered. Syria- specific studies are quite rare; one recent study by (Naqar & Al-Awad, 2012) using a VAR model for the period of 1983-2009 tested the relation between gross fixed capital formation and GDP without splitting between the two categories of capital formation. They found a strong and positive relation between capital and GDP in Syria.

Accordingly, we argue, mainly, that imposing uniformity of ‘one size fits all’ by WC is not possible within different structures, systems and needs (like Syria and India). Further, due to a clear dearth of literature on Syria, our second objective in this study is to realize and determine the linkages between public and private investment from one hand, and their relative importance to the economic growth in Syria, on the other hand. In this study, will employ a co-integration framework to investigate the long-run impacts of public spending on output and private investment in the pre-and post-reform in Syria, as well as in India. Unlike the VAR equations, which is sensitive to the identifications restrictions. The co-integration procedure will handle the problem of endogeneity econometrically and the long run estimations.

CHAPTER III

Development and Economic Growth in Syria; Policy, Strategy and Trends 1950-2010

3.0 Introduction: Syria:

The name of Syria was associated with the Levant ‘Shaam’, which embraced the oldest city in the history of humankind: ‘Damascus’ (Awad, 1969, pp. 80-81). The term was used by merchants, statesmen, and warriors alike. It is pertinent to point out that the natural borders that constituted ancient Syria had continued from the dawn of history, or what historians call, the early historical period. The ancient Near East comes into focus as the first region in the world with a well-defined civilization in the third millennium BCE till the beginning of modern times. However, the name has survived, revealing an amazing historical continuity (that has eluded many neighboring regions) but *not* the political borders that have undergone transformations. Such a striking change manifested after WWII in which the French colonial power re-formulated the borders in accordance with the Sykes-Picot Agreement.

From a geopolitical viewpoint, Syria has stood at the center of international communication and commerce, cross-road of trade routes since the third millennium BC (Seversky, 1952). This singular fact explains why the history of Syria has been the history of a series of great battles, between empires fighting for domination from Sargon or Alexander, Napoleon or Ramses, down to the modern French and British Empires.

This chapter focuses on the development of the Syrian economy over forty years (1970-2010). However, it does not mean that this period is detached from its predecessors. Many - important events that took place prior to 1970 had influenced the course of development of Syria until 2010, and will affect the future in one way or another. In this context, we emphasize on past continuity and the role of various political, economic, and geopolitical factors in the formation of current Syria.

At the beginning of this chapter, we present the most important events Syria has faced in modern history and how it effected Syria's development path since the Ottoman Empire and French colonial rule. Then, we present the development strategies of independent Syria.

3.1 Historical Background to Syrian Economy; Colonization and Its Impact:

3.1.1 Syria under Ottoman Empire:

The Ottoman Empire in Syria was set up by the end of 1516 and ruled Syria for four hundred years until 1918¹¹. The Empire had been established on three pillars that defined their rule. First, the central administration headed by Sultan (king), who enjoyed a supreme political and religious power with unlimited military authority¹². Second, the army consisting of regular reserves and feudal levies¹³. The third pillar was the Ottoman administration established over sub-sectarian sets; religious ruler for each group governed private law and concerning civil matters (Makdisi, 1968).

The Ottoman Empire was a state of constant war and chaos, abetted by the constant pursuit for expansion that led to its decline. Generally, Ottoman economic policy is discussed with respect to taxation, agriculture, industry, and trade. About 75 percent of the population was directly dependent on agriculture and, secondly, 14 percent of the workforce were working in small industries (Awad, 1969). Most of the agricultural land was owned either by feudal lords '*Pashas*'- administrative and military leaders - or by the Sultan. Pashas became official owners of several villages under their command from which they collected revenue as rent, remitted a specified amount to the governor '*Wali*', and retained the rest. They ruled each district by subordinated Turk or Arab. It is worth noting that in many cases, tax was collected by the loyal wealthy classes who would pay the total tax in advance, and then collect it later from the general taxpayer with a profit margin determined by the wealthy class (Ibid, P139). Indeed, this system wreaked havoc across farmers by charging excessive rents and taxes, leading to the formation of a feudal class that confiscated peasants' land who were unable to pay the taxes. As a result, agriculture declined, and the population decreased by nearly 30 percent by the end of the eighteenth century.

Industry was limited to small artisanal and handicrafts such as sweets, embroidery, wool, and silk knitting (Al-Azzawi, 2003). Syria continued to attract European traders, who traded with the Arab merchants various crops, spices, fruits, silk, tobacco, and textile to the United States and Europe¹⁴. Ottoman state facilitated foreign industries through special

¹¹ By 1549, Syria was divided into two *Eyalets* (provinces). The Eyalet of Aleppo and Eyalet of Damascus. Each was subdivided into several districts or (*sanjaks*).

¹² Religious authority based on the Caliphate as he was considered the first representative of the laws of God.

¹³ The feudal army was made up of inhabitants of different territories, which had been granted to some military commanders/ leaders during the war by the Sultan.

¹⁴ Trade had flourished, especially in the nineteenth century, with the new railway project linking Astana to Aleppo and from there onwards to Bagdad. In 1908, the Hijaz Railway between Istanbul and Medina had completed.

concessions or privileges. Privileges were part of concluded trade agreements with the Western countries, mainly Britain.

By the eighteenth century, Ottoman Empire start showing signs of decline under European domination and Arab's discontent (Abu Khalil, 1959). European powers took advantage of Ottoman weakness through foreign concessions that developed into rights over commercial aspects. European capital sponsored railroads brought further intervention. Western penetration became pronounced and military with subsequent British and French occupation of different parts of Middle-East (Abu Khalil, 1998).

3.1.2 Syria under French Colonial Rule:

French-British rivalry in the Middle East resumed at WWI close in 1918. Under the Sykes-Picot Agreement signed by both countries during the war, the area was divided into spheres of influence in which French held control of the part of Ottoman Syria. The French Mandate for Syria was a League of Nations mandate formally entered into force on September 23, 1923 (Hemsley, 1978). French Rule divided the country on sectarian basis; North, Center, and South corresponded to different religious groups (Makdisi, 1968). The French Frank became the formal currency, issued by Central banks of Lebanon and Syria in 1920, and currency management was in the hand of the French banks, founded previously through Ottoman privileges (Tibawi, 1969).

During the mandate period, most of the population lived in rural areas, and the regime of tyranny prevailed. The French had extended and strengthened the feudal system; it created a large class of senior owners, feudal lords, and tribal leaders. It also granted land and supported this class financially through financial loans and credit facilities to invest in agriculture to be in line with the mandate interests. In contrast, the owners' groups have supplied the French agricultural products mainly oil, cotton, and tobacco. French mandate created a class of intermediaries, merchandise capitalist class, in which worsened the situation through pushing the actual tillers into a vortex of debt by the moneylenders and landlords (Shorrock, 1976).

On the other hand, Industrialization during the French mandate (1920-46) was curtailed. The city of Homs that was known as the Manchester of Syria had lost its ground. Other small industries and Syrian handicrafts had eroded since it was unable to compete with French goods, which enjoyed large customs discounts and preferential advantages (Longrigg, 1972). In order to supply the French market with raw materials, the mandate started extending and encouraging investment in raw cotton production, Brocars or damaskos, and the natural silk, and had monopolized the tobacco industry (Khoury, 1956). At that time, a few numbers of large

landowners had dominated the handloom sector and tried to invest in rural areas for commercial crops. They accumulated profits by trading with the French Companies in which they constituted what was later known as the 'urban bourgeois' in Syria (Shorrock, 1976).

3.1.3 Impact of Colonial Rule:

During WWII and because of the siege imposed on Allied forces, the French authorities allowed and encouraged some Syrian merchants to establish small industries in order to meet the allied armies' demand for consumer goods (clothing and food). Thus, a small group of 'war-benefited class' began to emerge in the major cities mainly, Aleppo and Damascus¹⁵ (Hitti, 1959). The industrialists or the new capitalists were converted traders with feudal background aimed at making quick profits and not to build manufacturing projects ('petty bourgeoisie' as Marx called them). Hence, economic growth expanded horizontally through agriculture by growing new land, not by using irrigation and production technology. The agricultural sector continued to constitute the main pillar of Syrian economy and covers most of the exports, especially cotton. The policies of French, like taxation, transportation, agriculture production, etc. had led impoverished economy in terms of income, and transfer of wealth. For the sake of cheap raw materials, and controlling major railways, the economy was to serve the interests of France.

3.2 The Independent Syrian State 1946-1958:

Syria got independence in 1946 after a prolonged and extensive domestic nationalist struggle, and under declining post-war French Imperialism. Syria's track for independence was advanced under the National Bloc (Al-Kutlah al-Wataniya)¹⁶.

After independence, National Bloc was unable to patronize different groups and classes. As such, the political power remained in the hands of a group of competing forces of traditional classes (the old bourgeoisie and the traditional landlords). The old bourgeoisie could not conduct national sovereignty nor put Syria on the long-term industrial capitalist road to development, in which they remained semi feudal, function as an appendage to dominant imperialism (Amin, 1978; Khoury, 1984). To some extent, the uncertainty associated with the weak state of Syria explained the political instability and military coups from 1946 to 1958. The period witnessed a high level of inequality, where rural areas suffered from shortage of essential services such as electricity, education, health, transportation, etc. Strategy for

¹⁵ The two cities that grew as industrial cities continued to keep the lead in the post-Independent period too.

¹⁶ It composed of various nationalist groups, united for one single goal of freedom from French rule.

development seemed to be elusive until the late fifties, more particularly in 1958: the unity between Syria and Egypt.

It is important to note that Syria began its independent life with a fundamental crisis: the creation of Israel state. The Palestinian cause had been the main concern among the Syrian government and people since independence. The Arab-Israeli conflict continuously had caused exhaustion and drain of both human and physical resources of Syria, whether by the wars it waged, or by directing a substantial part of the country's resources into defense requirements. We will see that the conflict factor could not be ignored in the socio and economic development path of Syria. It had played an essential role in forming Syria's strategy for development, in which it effected each stage of its course.

3.2.1 The March Toward Socialism in Syria; United Arab Republic (UAR):

Distinctly, the Ba'ath Party and Syrian Communist Party after 1947 had united with one agenda on main issues and goals related to the economic and political policies, namely Arab unity, and elimination of feudalism. The two parties included mainly the educated middle class of professors, salaried and civil workers, etc., emerged during the French mandate. They looked towards the Soviet Union to face western dominance¹⁷ (Harb, 1987b).

By the end of 1957, Ba'athists, Communists, and other left-wing allies, who advocated the 'Arab Nation' notion, succeeded in the formulation of the union between Syria and Egypt of United Arab Republic (U.A.R) in 1958, where all political parties were dissolved and established one political party: the National Union (Harb, 1987b). The unity announced the nationalization of almost all companies and factories, limiting individuals' ownership, implementing land reforms, and emphasizing state's role in development through central planning in both countries.

The nationalization program during that period in Syria diverted Syria's economy from its previous capitalist development path. Moreover, Egypt's domination and excessive intervention in Syria led to increase in the dissatisfaction and the opposition to the U.A.R. Soon, the old bourgeoisie and traders of major cities joined the opposition political parties as they were dispossessed during the nationalization (Podeh, 1999), and solicited political assistance from Western governments (Petran, 1972). The political unrest continued up to 1961 when a military coup took place in Damascus, which led Syria to break away from U.A.R in 1961. The new establishment of Damascus abolished all nationalization regulations and

¹⁷ Generally, the anti-western political sentiment was at different phases, a) beginning with a dudgeon towards French policies during the mandate, b) a resentment of Britain at high pitch after the creation of Israel, and c) the invasion of Sinai (Egypt) in late 1956.

reversed the land reforms but frequent military coups took place. The political and social chaos that rooted in the dissolution paved the way for March revolution in 1963. The 8th of March revolution was a successful seizure of power by Ba'ath Party in Syria. Ba'ath Party is a secular, socialist and Arab nationalist orientation, which was active in the region at the early fifties.

During the 1960s, the Ba'ath Party introduced the first and second five years plans in Syria with a far-reaching nationalization, set by the Revolutionary Command Council of the March revolution. Almost all large and medium-size industries, banks and insurance companies were nationalized (Perthes, 1997). The necessary legislation and laws for land reform in Syria were passed¹⁸. The regulations laid down the Agricultural Relations Administration and set the principles of administering tenancy to allow reducing the share of crops taken by landlords¹⁹. It also enabled a considerable land transfer to the tenants and protected them against arbitrary eviction, with an intended effect of transferring land to the actual tillers²⁰ (Al Zaim, 2004).

Further, the State assumed greater control over the economy and regulated the entire production and commercial transactions, and monopolized foreign trade. The goal was to industrialize and diversify Syria's production based on Import-Substitution strategy in order to achieve self-sufficiency. The state implemented large-scale development projects to expand industry, agriculture, and infrastructure through a large expansion of the public economic sector. The growth rate of national output over the 1963 to 1969 was 6.2 percent. Share of service sector accounted for more than 56.7 percent, while agriculture, industry, and construction together accounted for about 43.3 percent of the total output for the two plans. The contribution of agriculture decreased from 27 to 22 percent. In contrast, the proportion of industry increased only by 3 percent (from 17 to 20). The manufacturing industries were mainly textile, chemicals, paper, food processing and the state established new capital-intensive industries like steel, coal, iron, etc. (Al-Hamash, 1992).

The government sector's share of output had increased substantially, accounting for 60% of GDP in 1970 compared to 25% in 1963 (Habib, 2006). However, lack of saving was the main obstacle for development at that time. The situation continued until the 'correction movement' which was led by the president Hafez al-Assad. He opened the door to the private sector and introduced the principle of 'economic pluralism'.

¹⁸ The provisions of laws did identify the excess of the land ceilings to be expropriated within five years and to redistribute it in favor of actual tenants in order to abolish intermediaries and expand areas of land distribution to farmers.

¹⁹ The first pillar of the economic strategy of the U.A.R rested on the implementation of land reforms as most of the agricultural land was under the control of 3000 families only.

²⁰ The law authorized agricultural laborers and landlords to organize unions as well.

3.2.2 The Corrective Movement:

In November 1970, a change in the government of Syria had been announced; it was neither a coup nor a political struggle. The change was a kind of natural development that resulted from the contradictions between the left and right wings indoors the Ba'ath party, which led to a revolutionary movement, often referred to as the 'correction movement' led by Al-Assad. In March 1971, Assad was elected president for a 7- year term (Harb, 1987a). This movement gained its importance from being a shift in the political and economic path of Syria in which first round of reform had been established; however, it never meant that Syria abandoned socialism in favor of liberalism, or cut itself off from the Eastern Camp to join the Western Camp. What happened was that President Hafez al-Assad brought about radical changes in the country's foreign relations by adopting 'pragmatic' economic and political policies (Seale, Patrick. McConville, 1989).

The 'corrective movement' formed what called 'Infitah Policy' of the New Era which was a part of a series of reforms (political and economic) that favored the integration of all parties in the state body; conservative and other progressive forces. In foreign affairs, The New Era managed to channel the political rents of openness (Infitah) for the development process²¹.

3.3 The Model of the development strategy of Al-Assad Era in 1970:

The leadership of Hafez Al Assad, adopted a *pragmatic economic model of development* where private capitalist sector was coexist with public sector in Syria, broadly described as a 'mixed economy', which had both features of capitalism, as well as socialism. In other words, the new era addressed the notion of economic pluralism (public, private, joint, cooperative) parallel to political pluralism (El-Bebrawi, 1999), in order to reassure the private sector which had fled out as a result of nationalization in the first half of the 1960s²² (Al-Hamash, 1992). The overall objectives of the government were to rapidly modernize and industrialize the economy, reduce disparities, reduce poverty, increase national income, increase employment, and achieve self-reliance.

The development model that governed Syria after 1970 was specifically related to the pattern of what was described at that time as '**comprehensive developmental mobilization**', a

²¹ Syrian relations with the United States and other Western nations had improved, and Syria's relations with other Arab states, Jordan, Egypt, Libya, and Gulf countries had been normalized. By normalizing the relationship with Arab "conservative" countries, Moreover, Syrian-Russian relations were greatly strengthened to the level of strategic alliance, and the oil sector was opened to foreign investment.

²².Although the Planning Commission was established in 1986.

state-led, centrally-planned strategy for development (Al-Qadi, 1995), with cautious economic liberalization (*Infitah*) to revive the private sector, in accordance to the socio-political and economic priorities of the state. According to different studies such Sadowski (1985); Molyneux and Halliday (1984); Richards and Waterbury (1996), the potential opportunity of the new commercial bourgeoisie pushed policy-makers to pursue this limited *Infitah* policies. However, the state maintained its leading role in which the government size index, measured as the ratio of consumption and investment expenditure to the GDP, had risen substantially during the early stages of the seventies especially after 1973, which is around 50% of GDP in nominal terms in 1977²³.

3.3.1 Industrial Policy:

In 1970, the state expanded the national industrial base and strengthened import-substitution strategy (Al-Emadi, 2004). It is worth noting that the planners at that time had ultimately avoided building a large, expensive, and capital-intensive industrial projects that were utilized in many developing countries (Al-Hamash, 1992). Projects were designed to meet the needs and size of Syrian economy:

1. Development underlined natural resources, where the public sector controlled the strategic industries of oil, gas, phosphate, steel, power, and electricity;
2. Supplemented local industries based on local materials like textiles, sugar refining, and cement;
3. Import-substitution strategy in fertilizers, iron, and steel;

Syria's mining sector constitutes crude oil, gas and phosphate, yet oil reserves are small compared to Arab and international standards; the oil industry showed up in the 1960s. The oil sector appeared essential for Syria's economy, enhanced by high international prices at that time (El-Bebrawi, 1999). Phosphate was the country's second mineral source located mainly in the central part of Syria (Palmyra); two-thirds of the phosphate was mostly exported to Eastern Europe as part of the concluded strategic arrangements. Syria's natural gas was discovered in the northeast part of the country in 1984. Yet, Syria did not exploit these resources (Al-Emadi, 1991).

The public industrial sector had faced many problems: electricity shortages, blackouts with underutilized capacity, political instability, and lack of skilled workers as they moved to

²³However, this model of development had been witnessed, not only in Syria, as well as in many Arab, developing, and developed countries in the world. It was part of the dominance of government role in the world at that period after the Second World War till 1975 when Keynesian rules prevailed. The size of the government reached its peak in the UK and Federal Germany (47%), Italy (43%), Canada (41%), and the United States (35%).

Persian Gulf states. There were fluctuations in agricultural output because of variations in rainfall, and planning in some areas was poor as well, as some factories were forced to cut production in half, like cement, due to delays in other units for exports.

3.3.2 Agriculture policy:

The government showed increased interest in improving agriculture and acquired funding to expand food production in less-developed areas in the southern part of Syria. The government got US\$76.3 million from the World Bank and the UN Development Program (Musbah, 2006). Between 1976 and 1984, there were 3,385 and 4,050 agricultural cooperatives, which were expected to play a critical role in agricultural development (Al Zaim, 2005). However, fluctuations in rainfall effected the crop production all over the 1980s, especially wheat- the strategic crop of Syria's economy- in which Syria became a net importer of wheat during the 1980s.

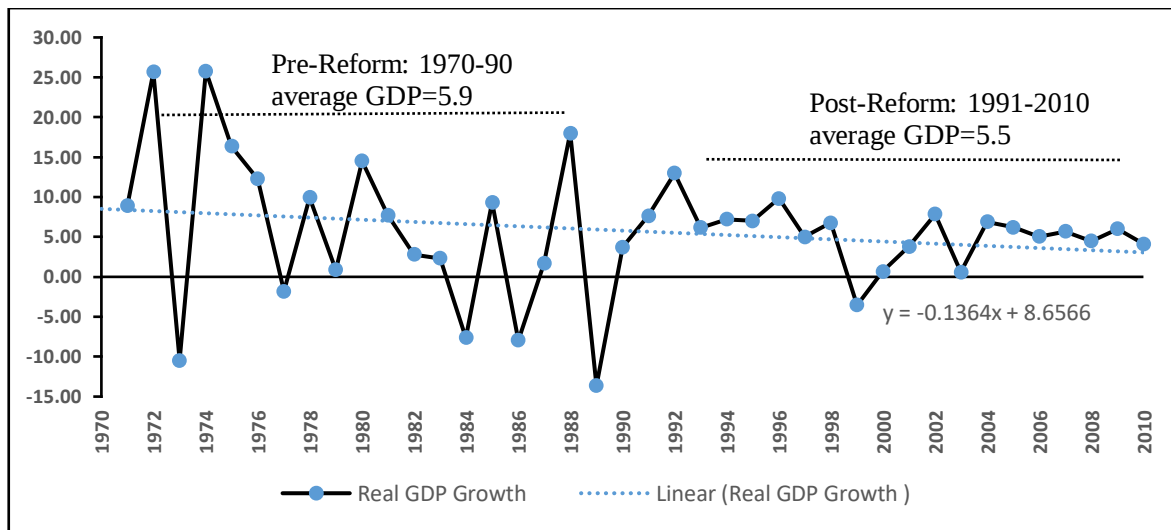
Thus, self-sufficiency was set as the target during that time. The government subsidized grain production and provided amended high-yield seeds, and urged some irrigated areas to shift from cotton to wheat, and raised the prices paid to the farmers (Ghayba, 1990). Another change in agricultural strategy was considered as the government tried to encourage the practice of double cropping, and diversify food production like sugar beet and cotton. Factories for sugar and textile mills were built at the same time (Habib, 2006). The area under cultivation increased, mainly fruits, vegetables and olive. While cotton remained Syria's most important cash, industrial, and strategic crop for foreign exchange. Syria produced cotton since ancient times, which accounted for one-third of Syria's export. By 1976, Syria was the tenth largest cotton producer in the world and the fourth-largest exporter (Congress Library).

3.4 An Outline to Broad Phases of the Pre-Reform Syrian Economy: 1970-1991:

This section presents a broad overview of Syrian economy during the pre-reform period, which begins in 1970 and ends in 1991. We examine the major features of Syria's economy and its main economic growth determinants throughout the planning period, until the mid-1980s debt crisis and its consequences.

The overall trend of GDP economic growth rate in Syria for the entire period of 1970-2010 accounted for 5.7%, and the per capita growth rate registered 2.64%. Syria's economy showed profound fluctuations, and a non-steady growth rate at different phases, reflecting the many impediments that had faced the Syrian state at the internal, regional, and world levels.

Figure (3.1): SYR.GDP annual growth rate: 1970-2010

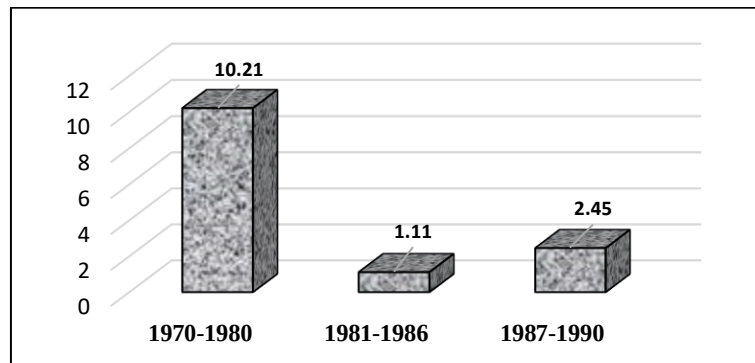


Source: Syrian Central Bureau of Statistics, 2018.

The development process in Syria during the reference period of 1970-1991 can be divided into three different phases that allows identifying trends and courses of development before the economic reform:

1. Early Rapid Economic Growth phase (1970-1980).
2. Mid-eighties stagnation, and 1986 BOP crisis.
3. Crisis management phase (1987-1990).

Figure (3.2): SYR- average relative growth in pre-reform period



Source: Syrian Central Bureau of Statistics, 2018.

3.4.1 Early Rapid Economic Growth Phase; (1970-1980):

During the seventies, which covered the third and fourth five-year plans, Syria achieved a high rate of economic growth at 10.5% on average. It was the highest growth rate that had registered in the modern history of Syria (Ibrahim, 1988). The growth was achieved through an increase of investment programs carried out by the state, which inherited a significant public sector (dated back to the previous phase of social transformation; 1963-69).

Table (3.1): SYR-Major Macroeconomic Indicators during the first phase; 1970-1980

Plan	Second FYP: 1971-75; 13.26%						Third FYP: 1976-80; 7.16%					Total
Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1970-80
GDP %	-	9.0	25.7	-10.5	25.8	16.4	12.3	-1.8	9.9	0.9	14.5	10.21
GDP_ pc %	-	5.4	21.6	-13.4	21.7	12.6	8.6	-5.0	6.4	-2.4	10.8	6.6
Inflatio n rate	-	5.6	2.1	20.4	15.5	11.5	11.4	12.0	4.8	4.6	19.3	10.7
r_invtot %	18.4	19.7	19.9	21.2	22.9	27.6	32.3	38.8	30.1	30.3	32.2	26.6
Gross_S %	7.9	8.90	13.2	26.8	18.1	21.9	21.3	29.3	18.2	12.4	11.5	17.2
Budget deficit %	-6.2	-5.6	-3.5	-5.8	-4.7	-4.8	-9.4	-10.8	-11.2	-3.8	-8.3	-10

Source: Syrian Central Bureau of Statistics, 2018. GDP_pc %: GDP per capita, r_invtot %: real investment as a share of GDP, Gross_S %: gross saving as a share of GD, and budget deficit as a share of GDP

During this phase, following the October War in 1973, massive public investment was carried out in mining, manufacturing, infrastructure, and electric power production (marked step-up of 4% in public investment in 1974) to revive the pace of development and for the reconstruction process (Al-Hamash, 1992). Further expansion was diverted into health services and education development projects to rural areas in this phase, while housing (construction) was divided between public and private investment (Al-Azmeh, 2007). Total government expenditure increased significantly from 28% in 1970 to 32% of GDP in 1973 (in constant price) in response to the war and droughts. The achievements of the third and fourth FYPs in Syria were substantial compared to the pre-1970s. Although the fiscal position was considerably more expansionary than it had been in the pre-1970s, the budget deficit, remarkably, continued to be at the same level of pre-war years (5%). Further, the inflation rate averaged (2.1) percent in 1972; pre-war, and 20% during the war year, while it declined to 4.8 percent in 1978.

The source of rapid economic growth was linked to the investment-led approach, largely financed through external resources: (1) Gulf Arab aid flows around \$1.5 billion a year after the war, (2) soft foreign loans from the international financial institutions which rose, in terms of billion dollars, from 0.262 in 1970 to 3.978 by 1981. Syrian government had also benefited from the oil boom in 1973-75 and 1979-80, in which (3) the transit oil revenues mainly from Iraq, accounted for \$142 million annually until its suspension in 1982, and (4)

remittances estimated at the end of the 1970s to \$ 750 million annually (Arbash, 2006). Syria received, between 1974 and the end of 1982, Arab aid totaling \$7779 million (Al-Nayal, 2006).

Finally, it is worth noting that the GFCF of the registered private sector, doubled its share of GDP from 5% in 1970 to 12% in 1980. Nevertheless, private industrial and commercial companies were entirely confined to small activities, and into construction (Dagher, 2006).

3.4.2 Mid-Eighties Stagnation and 1986 BOP Crisis:

The favorable situation that prevailed in Syria during the 1970s, was completely reversed by the early eighties. The phase was marked by a decline in the pace of the development process; the growth rate sharply declined during the entire fifth FYP to 1.1%. The indicators of a structural crisis began to emerge in 1978, due to external and internal factors. Externally, Syrian remittances and transit revenues had dropped as a consequence of the first Gulf War and a decline in the international oil price. Financial grants from Gulf Countries were also suspended (they fell from 1.8 \$b a year in 1979–83 to 500\$ million in 1986)²⁴, reflecting the political discrepancy with the Syrian government (Al-Mannai, 2006).

Internally, political pressure increased significantly; Syria was fighting on an internal front (Muslim Brotherhood rebel), and another regional war during the Israeli invasion of Lebanon in 1982. Agriculture faced a severe drought; its contribution to GDP for the same period (1981-86) declined to negative 1.8% in which Syria was converted to a net importer of food, especially wheat (Sukkar, 1992). Thus, the government converted the resources into military expenditure, and avoided building a new projects with the ISI program - allowing to complete the unfinished projects only.

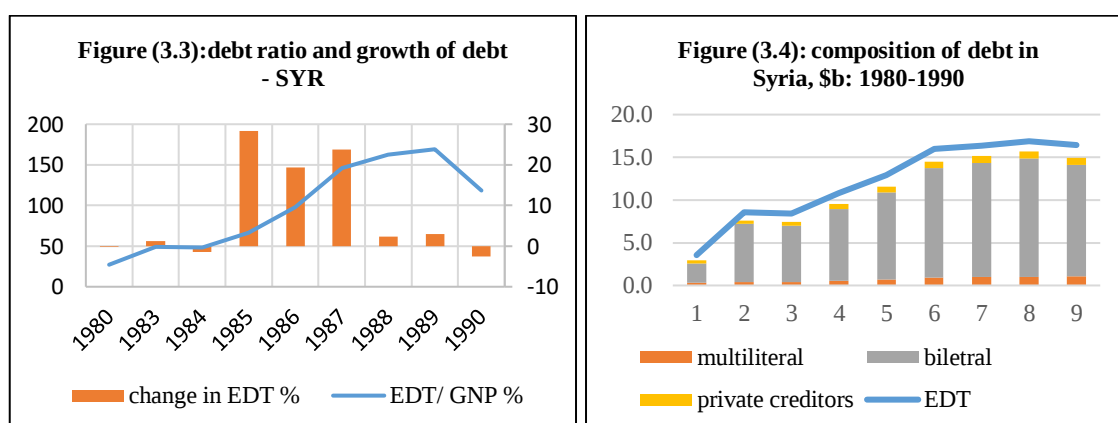
Table (3.2): SYR-Major Macroeconomic Indicators during the second phase; 1981-1986

Fifth FYP (1981-1985)	1981	1982	1983	1984	1985	1986	1981-86
GDP %	7.8	2.8	2.3	-7.6	9.4	-8.0	1.11
GDP_pc %	4.3	-0.5	-0.9	-10.6	5.9	-10.9	-2.21
Inflation rate	18.4	14.3	6.1	9.2	17.3	36.1	16
r_invtot % GDP	30.54	30.55	31.60	34.59	33.17	31.92	32
Gross_S %GDP	7.65	12.85	10.67	12.32	10.90	11.65	11
Budget deficit %GDP	-5.3	-14.7	-14.9	-13.8	-13.2	-6.6	-11.4

Source: Syrian Central Bureau of Statistics, 2018. (Same notes on table 3.1)

²⁴ Official grants from the Arab Gulf countries because of Syria's political position on the Iraq-Iran War (siding with Iran).

As we mentioned earlier, Syria's economy was highly dependent on foreign saving; however, domestic savings went down to 11 percent of GDP in the fifth FYP. Thus, Syria resorted to concessional long-term debt (more than 80 percent of total debt), which almost quadrupled, from 3,549 million dollars in 1980 to 12,918 in 1986. The total debt-to-GNP ratio hiked from 27 to 100 percent in the same years, respectively, with a steady fall of income. More significant, perhaps, than the rise in absolute size, was the change in the form and composition of debt. Syria's external debt was mainly of long-term public and publicly guaranteed debt with zero shares of private non-guaranteed debt, and around 5% as private debt. Under the long-term obligation, a more significant share of debt in Syria was held by official bilateral creditors—about 80%, mainly USSR, due to strategic orientation, and less than 10% in the form of multilateral (World Bank, 1992).



Source: World Bank Debt Table, 1991-92

The private sector (the bourgeoisie and the wealthy merchant) conducted to a foreign exchange' exhaustion, in which they were keen to accumulate their wealth in foreign currencies (mainly through smuggling) however, not in Syrian banks; rather, in the neighboring countries like Lebanon and Jordan (Kanovsky, 1997); (Lawson, 1994).

In the first half of the 1980s, fiscal deficit was 14.5% of GDP, the gap between investments and saving reached the highest level of 22% of GDP in the same period, and current account deficit widened to 5.06% of GDP. GDP per capita was negative for the period of 1981-1986, with inflation averaging around 16 percent, reaching a peak of 36.1% in 1986, and 59.4% in 1987. The imbalance had been exacerbated by an erosion of reserves, gradually but at an accelerated pace, where exchange reserves were not comfortable with an import cover of less than one month (0.8) in 1985 (Al-Amash, 1992). On the other hand, domestic factors of

public finance deterioration, that resulted from the growing current expenditure of 7% per annum, with a fall in tax-GDP ratio, had also contributed to the crisis.

Consequently, Fifth Five-Year Plan's targets proved to be unattainable. It achieved around 50 percent of its targets only. Factors out of the government's control, mostly external and politically subjected, had contributed to this failure-revealing a high level of external risk of Syria's economy (Al-Hamsh. 1991). However, Syria continued to be reliant on Soviet assistance to support the massive mounting of defense outlays during this period, called the 'strategic balance program', which continued to divert resources from productive investments.

3.4.3 Crisis Management Phase (1987-1990):

As explained above, the economy was suffering from a structural deficit of trade and budget deficits. Along with that by 1986, Syria had to face the requirements of the payment agreement with the USSR of accumulated military debts that resulted from Syria's strategic 'balance program', initiated in 1970. Further, the international environment was changing: perestroika in the Soviet Union and communist East Europe was launched, and the liberal ideology was dominated (Zaki, 1994).

Hence, economic reform was no longer merely a domestic economic need to achieve high growth rates and restore macroeconomic balance, but was also a strategic necessity for the regional position of Syria as a front-line state to Israel²⁵ (Al-Nayal, 1998). To overcome the problem, Syrian leadership had completely avoided the path of signing an agreement with the IMF. Instead, they had chosen a partial, proper, diminutive, and selective liberalization approach to manage the crisis at the short-term level, with no long-term structural adjustment (Dagher, 2007). Self-reliance was the address to achieve short-term stabilization, through applying IMF's recipes, but selectively (Al-Amash, 1992). The reform was in the form of controlled liberalization approach. The government adopted pro-business policies through Export Program or Clearing Program 'PAY' (Al-Emadi, 1991), in which it provided the private sector with a package of export & import incentives, deregulation of licensing, and credit facilities, relaxation of state control over trade and investment (Sukkar, 2000). The program represented a definite policy shift in favor of the private sector, wherein state's monopoly of

²⁵ Through using the strategic relationship with the Soviet Union under the obligations of the Syrian-Soviet Friendship Treaty (1980) to rebuild and strengthen Syrian power under the comprehensive strategic balance approach on two levels: 1. focusing on Syrian human capital, 2. restore and increase Syrian national military capabilities vis-à-vis Israel by relying on Soviet technical and military support.

many industries was broken. Further, devaluation of Syrian currency to expand Syrian exports along with cut-off of public expenditure had been implemented as well (Perthes, 2004)²⁶.

We can say that some form of export-oriented development strategy came to determine the goals of economic development in the mid-1980s.

The program (PAY) had been a driving force for the private sector to direct their investment to small and medium-industrial production. Private sector showed a great vitality and responded relatively. For the first time, private investment exceeded public investment with 11.21% of GDP for the former and 8.33% of GDP for the latter. Its share of total investment in manufacturing industry, namely textile and chemical, accounted for 28 percent. The contribution of exports of textiles, clothing, footwear, leather and chemical products accounted for about 92% of total exports during this phase.

Table (3.3): SYR-Major Macroeconomic Indicators during the Third phase; 1987-1990

Sixth FYP: (1986-990)	1987	1988	1989	1990	1987-90
GDP %	1.7	18.0	-13.6	3.7	2.45
GDP_pc %	-1.6	14.2	-16.4	0.4	-0.8
Inflation rate	59.5	34.6	11.4	19.4	31.1
r_invtot % GDP	21.15	17.21	18.12	19.54	19
Gross_S %GDP	4.32	2.56	11.97	12.67	7.88
Budget deficit (excluding grants) %GDP	-0.8	1.7	1.6	-1.9	0.1

Source: Syrian Central Bureau of Statistics, 2018. (Same notes on table 3.1)

Syria achieved a surplus in trade balance of which 36% of total export was to the Soviet Union, about 12 billion Syrian pounds. In addition to the proceeds of light Iranian oil, provided by Iran at a rate of (50) thousand barrels per day, as a gift, Syria was able to control the debt crisis by the end of the eighties (Marzouk, 1995). The success of achieving trade surplus during the period of 1986-1990, did not bring about high economic growth rate. GDP was very limited and fragile, registering at 0.4 %, the lowest growth rate for the entire study period (1970-2010) according to (Planning Commission, 2003). This could be explained by two different aspects: first, the private sector had been in existence, and the program had brought it out from the informal economy. Second, the private sector especially merchants, remained concentrated in trade and lesser productive sectors to increase their own profits, with weak productivity, as the export program (PAY) was attached to quantitative vision, to the Soviet debt according to the

²⁶ Public sector had abandoned the monopoly of many industries at the benefit of the private sector, mainly in textile, chemical and consumer products, especially Agriculture-related. The currency devaluation was coupled with high levels of inflation and price explosions from 1986–1987. 'Consumer prices rose by 36 percent in 1986 and 60 percent in 1987, but true inflation rates were believed to have increased by more than 100 percent in each of these two years' (Sukkar, 1993, p. 28).

protocol (1986-1990), and hence, the buyer was pre-assured with no long-term development strategy.

3.5 Political Economy of Reform in Syria:

Syria was able to hold a strategic partnership with the USSR for political and geopolitical reasons (Al Hamash, 2004). In October 1980, Syria-Soviet relation was formalized in the 'Treaty of Co-operation and Friendship' which covered bilateral trade relations, and armaments and defense materials supply (Marzouk, 1991). The volume of trade between Syria and USSR continued to increase at a high pace; Syrian exports in 1989 and 1990 reached more than 1.4 billion Syrian pounds. The main exports were textile materials like cotton, silk and woven fabrics, cotton yarns, curtains, and towels, and other raw and manufactured materials (Marzouk, 1991). Given the fact that most of the Syrian debt (around 80%) was held by an official bilateral creditor of the former Soviet Union, thus, the borrowing profile of Syria was much better than other developing countries-reflecting a different application of rescheduling terms. The ratio of debt service to exports increased rapidly, and peaked in 1984 with 48.9 percent. Interest payments for the entire decade leveled off to 40% of total debt services until 1988 (2% of GNP and 8.5% of exports in the same year; see figure 3.3 and 3.4). After that, with the settlement of principal payments with the USSR, the ratio dropped to 20 percent of total debt services (4.8% of XGS) in 1989 (Planning Commission, 2000). Accordingly, Syria had the choice, and it had chosen not to go with any kind of conditional loan from the IMF. The market reform has remained relatively independent from International Financial Institutes, where Syria preferred the path of self-reliance through the 'economic pluralism' approach (Al-Emadi, 1991).

The emergence from the crisis gave the Syrian government two main options: either to stop within the limits of short-term stabilization policies that had been taken, or to continue with a clear agenda of reform based on long-term policies that could address structural adjustment. Indeed, the policies put forward had not been reflected on the ground enough to bring about the required reform. Reforms were short-lived and partial, standing in for crisis management on short-term stabilization policies. The confusion between planning and the requirements of a market economy led to instability of the growth rates and continuity of its dependency to external factors.

As we mentioned earlier, by the early 1970s, the New Era had reoriented Syria's international relations, with more openness to the Arab Gulf countries and the Eastern Block, and in which it had channeled the proceeds of openness (geopolitical rents) to the development

process. However, after 1981, on account of political discrepancy between Syria and Gulf countries, grants declined sharply, accompanied by a decline of remittances that followed the tight immigration policy by the end of Gulf boom. Along with that, the international environment was changing, in which the collapse of social bloc in 1991 put additional pressure on the Syrian government to enhance the market reforms. Thus, we can say that the economic crisis of mid-1980s is not the only reason that influenced the Syria's gradual move to market reform. In fact, it is the political factors at that time had played primacy role in shaping and timing the economic reforms. Syrian case differs pretty much from other developing countries; its political stance in history is considered a crucial factor in determining Syria's economic choices.

It is worth noting that *the Investment Act (No. 10 of 1991)* represented the most prominent outcome of this phase (Al-Emadi, 1991). As Patrick Seale wrote, the law served as a landmark on the path towards capitalist development in Syria (Seale, 1993, p. x). The law was a remarkable turning point within Syrian history after the collapse of Soviet Union. It opened the door for changing sectors' roles in the economy, and also gave a great impetus to the private Arab and foreign investment. The law provided tax exemptions, tax holiday, and facilities (in trade and exchange transactions) for investors in a wider range of activities, as well as in many other areas that were previously monopolized by the public sector. The law also restored the private ownership.

However, despite the importance of this law in shaping and re-defining the economic development strategy in Syria from the state-led to private sector-led, it was *not* enough to bring about the required changes within Syrian society. The law failed to prioritize productive sectors (mainly the industrial sector); rather, it treated all sectors at the same degree of financial privileges, and incentives. Thus, private sector performance had been marginal in which it managed to benefit from the law, from its financial privileges, and invest in more profitable areas, with no preference to build the economy's productive capacity or job creation.

3.6 An Outline of Broad Phases of the Post-Reform Syrian Economy: 1991-2010:

3.6.1 Lost Decade 1991-2000:

Following the reform measures of 1991, the economy registered a boom in private sector investment (1991-1996) that accounted for more than 67% of total investment. The achievements of the seventh FYP (1991-96) were substantial compared to the legacy of the

1980s. The growth rate increased to 8.21% (the population grew at 3.11%). In the post-second oil shock period, the fiscal position was considerably more restricted than in the previous decade. Syrian government pursued a tight fiscal policy in which government consumption was decreased to 13% of GDP, and public fixed capital formation was indeed cut down by half during the seventh plan, registering 8.5% of GDP. In contrast, private investment grew at a high rate, reaching the level of 13% during the same plan.

Table (3.4): SYR-Major Macroeconomic Indicators during post-Reform-Phase I; 1991-2000

	Seventh FYP (1991-95): 8.2%					Eighth FYP (1996-2000): 3.7%				
year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GDP %	7.7	13.0	6.2	7.2	7.0	9.8	5.0	6.8	-3.6	0.7
GDP_pc %	4.2	9.4	2.8	3.8	4.3	7.0	2.3	4.0	-6.1	-1.9
Inflation rate	9.0	11.0	13.2	15.3	8.0	8.2	1.9	-1.2	-4.0	-3.2
r_invtot % GDP	18.82	22.08	21.10	23.75	22.19	20.15	18.22	17.61	17.78	17.25
Gross_S %GDP	6.66	8.87	9.37	17.38	19.96	14.83	14.72	13.39	12.25	15.80
Budget deficit %GDP	-2.6	-2.8	-0.9	-3.4	-1.5	0.0	0.0	-0.7	0.7	-0.1

Source: Syrian Central Bureau of Statistics, 2018. (Same notes on table 3.1)

However, the eighth FYP (1996-2000) witnessed remarkable changes, wherein the Syrian economy started to see a relative recession. The average economic growth rate was only 3.7%, less than the previous plan (population grew at 2.66%). The paradox was that the gross fixed private capital formation fell in terms of percentage of GDP in real terms compared to the previous plan (from 21% in 1979/80 to 18% in 1980/81) (Habib, 2005). The private investment failed to undertake a viable role in economic development.

There was heated debate in Syria over the key contributions to the private investment behavior during this phase. One strand of literature showed that liberal economic policies during the 1990s were not enough to bring about the required changes- the private sector faced many obstacles. First, private foreign property was not guaranteed, which is what investors seek. Second, although the law allowed private capital to invest in any sector, a list of 30 industries was exclusive domain of the public sector. Third, although the legislation enabled exemption, mainly from customs duties and import restrictions, the complexity of procedures and government bureaucracy was very complicated (Al-Hiti, 2005).

In contrast, another strand of literature argued that the private sector had benefited from the investment law by investing in more profitable and lesser risk sectors during the period of

tax exemption²⁷. The Investment Act of 1991 was unable to attract the private sector to invest in the manufacturing industry (Abdel Nour & Arbash, 2006). It seems that the non-expansion of the private sector in industrial investment, following this law, as a striking phenomenon. We argue that private investment decisions remained in the hand of old state- bourgeoisie, who with their new allies of the commercial bourgeoisie, caught the opportunity and exploited the financial advantages of the law, and directed the investment into profitable activities (which involved little risk and quick returns), like tourism, commerce, real estate, trade-related activities, transport, and far away from industrial productive investments, which can provide a higher productive capacity of Syrian economy accompanied with new opportunities for employment. Therefore, the process of capital accumulation during this decade was far from public interest and grasped by the new private investment agents and their interest only.

This could explain the fragility and volatility of growth rate (boom and bust) in the two half of 1990s, it accounted for economic reforms in terms of policy changes which allowed for an increase in capacity in the short-term. Others like (Habib, 2000) and (Hassan, 2003) explained the weak growth in the second half of the 1990s in terms of decrease in both TFP and public investment, mainly in the manufacturing sector based on long-term prompting programs. Accordingly, the working class and the peasants were suffered from dampened purchasing power because of rising prices, deepened social polarization, and increasing unemployment.

3.6.2 Liberalization Acceleration, and Indicative Planning; 2001-2010:

July 2000, with the speech of President Bashar al-Assad, a new phase of Syria had been launched. The process of structural reforms within a framework of the so-called ‘Strategic Program for Modernization and Development’ was declared. Unlike the last decade of the twentieth century, which witnessed a resistance to the reform, the first decade of the new millennium articulated the fact that a neoliberal logic of economic reform has been dominant in shaping a wide range of political, legal, and institutional framework (IMF, 2006). Syrian government made progressive moves into a liberal path with the market system driving the development process (Al Zaim, 2005).

²⁷ It also noted a decline in the ratio of the number of projects licensed to those implemented (57%), which raised the question of the reasons behind the private sector’s reluctance to implement projects after obtaining the license, especially large capital intensive projects.

‘Political reforms under Bashar Al-Assad have been all geared towards facilitating the transition to a market economy’.

The new regime inherited difficulties in which The Ninth Plan (2001-2005) came at a complex and important stage of Syrian economy. The economy suffered a recession by late 1990s, wherein growth rates declined to nearly zero in 2000, productivity and investment fell, unemployment rose and nominal wages fell, and there was macroeconomic imbalance, including a four percent labor force growth with an economy grew at one percent. Moreover, IMF (2005) reported that Syria was likely to become a net oil importer by 2020 due to the dwindling of oil reserves (IMF, 2005b). Thus, raising non-oil GDP became a challenge. Reform was not an option any more as much as it was a need.

The first step of the transition was a shift from traditional planning to ‘cyclic indicative²⁸’ planning in The Ninth Plan (2001-2005). The principle launched the mechanisms of the market economy and its institutions (IMF, 2007&2008). The 9th FYP was considered a transitional plan, in which annual numerical targets for economic growth or public expenditure were not specified. It was in the form of general objectives of raising the capacity of the national economy. The IMF provided non-financial, technical assistance into the process of economic liberalization. In 2003, an Association Agreement, known as the EU-Syria MEDA cooperation, was signed²⁹. The draft of the EU-Syria Agreement contained ‘provisions of all trade and non-trade related issues.

The most important part of the agreement was the ‘Institutional and Sector Modernization Facility’, ISMF project, for institutional reforms. The aim of the ISMF project was mainly to strengthen the government institutions (Marzouk, 2006). It supported the preparation of the 10th Five-Year Plan (2006-2010), which was an extension of the reform policy in terms of the transformation from centrally planned to *social-market economy*. The formula of social-market economy was consistent with the social roots of Ba’ath Party’s ideology, as it evolved towards a combination of market and social protection. Thus, the 10th FYP was formulated on the principle of state directing market activity without domination or acquisition, and emphasized the role of the private and non-governmental sectors, and civil

²⁸ The concept of indicative planning in some Western liberal countries such as France, Netherlands, some Scandinavian countries and Malaysia, which adopted by the 10th plan as a method of planning through changing in the roles on the level of planning identity and development theories, was a radical change in the concepts of managing the development process since 1963 in Syria, which in turn reflects the socio-economic changes of the dominant players.

²⁹ In the course of 2002-2003, European Communication /EU, with the new policy orientations adoption, related to the relations with Mediterranean partners, it suggested New European Neighborhoods Policy. Most significantly, the communication on "Wider Europe and the New Framework for Relations with our Eastern and Southern Neighbors," which sets a new framework for relations with the Southern Mediterranean countries.

society organizations, and restructuring the industrial public sector by avoiding privatization and layoffs.

The major liberalization measures enacted during his era were concentrated mainly in four areas: private sector development; public finances; business environment, and trade. Further measures were directed for lifting price controls and subsidies. Investment liberalization and trade reform will be discussed later in different chapters. However, economic growth in 2001 and 2002 achieved high rates of (3.79% and 7.86%, respectively), driven by the opening of the Iraqi market to Syrian goods (1999-2003) under the program ‘oil for food’, signed between Syria and Iraq (private-sector exports’ value of total grew from \$894 in 2001 to \$1.547 million in 2002). Then, it dropped to nearly zero in 2003, due to the war in Iraq. Later, in the following two years of 2004 and 2005, it stepped up again to 6.9 and 6.2 percent. The high growth rate was driven by the boom in transit revenue, and good agricultural harvest. Further, the growth rate of the Syrian economy could not be explained in isolation from its semi-rental characteristics, and its sensitiveness to the impact of overall economic growth in the region. The region achieved high economic growth rates during the same period as a result of world oil prices hike after the US occupation of Iraq. Hence, all Arab oil and non-oil countries benefited from this massive financial surge. Syria had also benefited from the financial boom in the Arab-oil countries, in which Syria become a relatively stable investment destination (Al-Mannai, 2006).

Table (3.5): SYR-Major Macroeconomic Indicators during post-Reform-Phase II; 2001-2010

	Ninth FYP: 2001-05 : 5.08%					Tenth FYP: 2006-10: 5.06%				
Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
GDP %	3.8	7.9	0.6	6.9	6.2	5.0	5.7	4.5	6.0	4.1
GDP_pc %	1.1	5.1	-2.0	4.1	3.7	2.5	3.1	2.0	3.5	2.1
Inflation rate	3	1.0	4.8	4.6	7.9	10.0	4.4	15.1	2.9	4.4
r_invtot % GDP	18.13	19.48	22.77	23.49	24.91	25.40	22.05	19.86	20.89	22.79
Gross_S %GDP	21.82	22.40	19.20	17.70	17.35	19.49	16.25	11.47	10.59	0.00
Budget deficit %GDP	3.2	-1.2	-2.9	-4.9	-5	-3	-3	-2	-2	-2

Source: Syrian Central Bureau of Statistics, 2018. (Same notes on table 3.1)

Another aspect that contributed to the growth during this period was the new investment of private sector in banking, insurance, telecommunications, and tourism after decades of state monopoly in these sectors (IMF, 2009). Total investment to GDP ratio witnessed a steady increase from 18.13% in 2000 to 22.79% in 2010. The liberalization process in 2004-05 resulted in a 'historic' revival of the private sector by Syrian standards. Investment approvals reached US\$9.2 billion (26 % of GDP) in 2006, divided between industrial, tourism, and real estate projects. The share of foreign direct investment (FDI) approvals in total remained relatively stable at about 20 % (IMF, 2006). Another spectacular improvement was the boom in the financial sector which grew by 200 % in 2006. The growth in this sector attributed to the boom in the private banks which captured 70% of deposits and contributed to more than 40% of the growth in loans and advances. However, the 'fruits' of rapid growth associated with the new reform policies had been 'dropped' by a new political upheaval and violence in Syria in March 2011.

However, and again, the fruits of liberalization process was grasped by a few at the expense of the others. First, the state failed again to prioritize the productive sectors with a potential global competitiveness, rather, the investment channeled into real estates, especially from the Gulf investors who allowed to own land. Second, in response to the new opportunities, Syrian economy witnessed a 70% increase in its FDI inflows, yet the FDI inflows were away from the industrial sector; the highest share was recorded in the non-developmental primary sector – resource-seeking investment like oil, gas, and tourism sectors. Third, the liberalization had benefited the state bourgeoisie, in which they succeeded to break the state's control, and transformed themselves from state-capitalist class into a class of new private capitalist (property owned class) monopolized telecommunication, banking, and real estate sectors (Seifan, 2010) and (Barout, 2011). While investment in the industrial sector was lacked behind as the capacity, productivity, and wages had declined. Finally from socio-economic perspective, the neo-liberal reform led to social unrest, in which poverty and unemployment increased: the Central Bank of Syria reported the unemployment rate registered 8.2 percent in 2009, and poverty rate step up from 30.1 percent in 2004 to 34.3 percent in 2010 according to UNDP (2010).

3.7 Conclusion: Planning Versus Reform:

Syria's domestic political and geopolitical conditions have played a decisive role in shaping its historical development course, and influenced its growth potential and reform choices. Syria's external and internal political surround was tangled in war and instability, which limited the potential for accelerated inclusive growth and productivity, and eroded the government's implementation capacity. Such non-economic factors, cannot be estimated, yet, they have minimized the policy choices available to act by the government.

The state of independent Syria pushed for state-led investment through nationalization to foster the process for accumulation for development and increase the economy's productive capacity, described at that time as state capitalist. However, with the New-Era in 1970, the state-capitalist class, through aligning with the new commercial bourgeoisie, formed a new agent of investment that became responsible for investment decision making. As Longuenesse (1979) argued that, the state-capitalist class in Syria constituted the highest echelons of the state apparatus. This class enacted partial liberalization and pushed investment to less productive area into commercial rather than industrial investment.

After two decades of state-led development, there are two things we need to emphasize here. First, plus points during the planning phase should never be underestimated; also, one should observe minuses as well. Second, a critical question arises: what accounts for the significant and higher growth during the planning period and reform period?

3.7.1 Social Welfare:

During the planning phase (1960-1991), Syria witnessed successful social-redistribution policies. The proportion of large ownership had declined to 0.83% of total land ownership by 1970 and the share of bourgeoisie class declined from 7.6% in 1960 to 3.1% of the population in the same year, with additional decline to 1.5 percent with another round of the land-redistribution programs in 1975. Further, per capita income increased throughout all classes, and development was apparent in the form of core infrastructure (water supply, dams, electricity, and transportation systems). Most importantly, Ba'ath Party supported education and healthcare systems as fundamental pillars for social development, along with public sector employment programs- allowing for upward social mobility. Health-care and public school systems expanded, both in rural and urban areas, but funding levels have not been able to keep up with demand, or maintain quality. However, Syria's education and health systems are

relatively decentralized and focused on offering primary health care and primarily mandatory education at three levels: village, district, and province (Marzouk, 1995).

The reform period started with a series of selective economic reforms, centered on short-term stabilization that was implemented during the period of 1985-1991, and accelerated after 2000 with the changed political regime. Broad-based reforms after 2004 had led to significant changes in the economic and financial landscapes. However, during the reform period, the fruits of rapid growth associated with the region's overall growth had been dropped by a new active segment of private sector. The new business sector (especially in the new productive services, where a small handful of them control a large share of the Syrian economy) rose quickly, due to their rapid utilization of the Syrian market's thirst for new services, and the absence of real market economic institutions based on transparency, monopoly prevention, competition, efficiency and equal access to business (Marzouk, 2006).

Syria's economic growth remained primarily rent-based, depending on oil revenues, foreign aid and grants (geopolitical rents), and remittances to finance the growing budget and trade deficits. Syria, as a front-line state in the Arab-Israel conflict, was also vulnerable to the vagaries of Middle East politics, relying on Arab aid transfers and Soviet assistance to support mounting defense expenditures. Till now, the third reform process had avoided direct privatization or de-nationalization, and the dismissal of surplus labor, because of social and political reasons. However, it had increased the pace of development and activation of the reforms of restructuring, based on separating administration from ownership, in order to allow the state to play a new role required with a new framework for partnership with the private sector, and to focus on establishing a stable macro-economic environment.

3.7.2 Structural Composition:

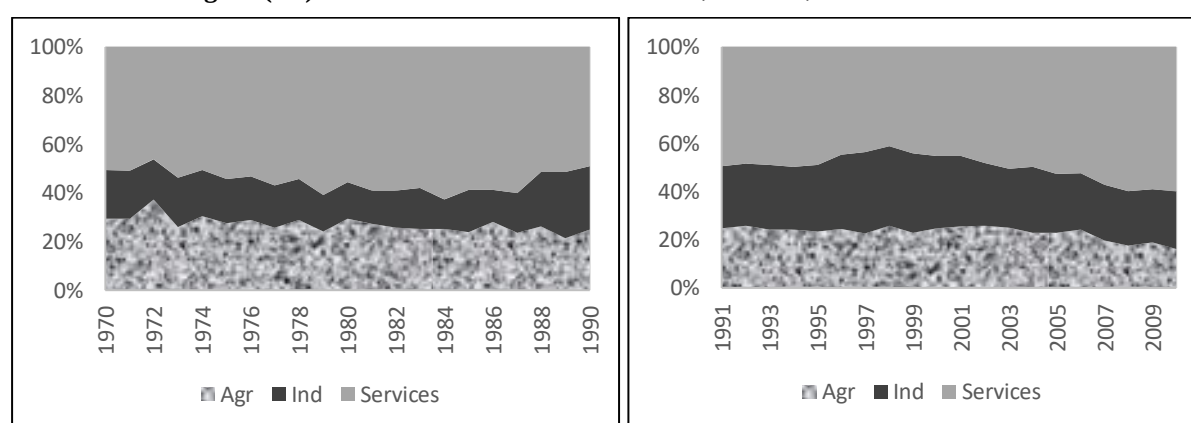
Since Syria got independence, the economy has undergone prolonged structural changes. It is during the planning period, since 1960, that Syria witnessed a radical transformation of the structure of the economy. Agriculture's share in GDP declined from around 57% in 1974 to about 31 percent in 1989/90, and that of the industrial and service sectors climbed up from 14 and 30 percent to 28 and 41 percent respectively.

After 1960, as the state assumed greater control, and sponsoring land reform along with nationalization of major industries; service sector accounted for more than 56.7 percent, while agriculture and industry together accounted for about 43.3 percent of the total output. The two figures below show the sectoral share in real GDP for the two periods; pre and post reform,

while the contribution to annual GDP growth by sectors in each decade is calculated and presented in table (3.6).

During the planning period, especially after October War, the importance of service sector increased, mainly as a result of a notable expansion of government services and construction. The service sector's share in value added accounted for more than 55% (1970-90). By 1990, Syrian economy had achieved a considerable shift from a traditional agrarian society to an economy with government dominance mainly in the service, which shows tremendous growth for the first half period; transportation (6%), construction and real estate (12%), trade and other government services (13%). On the other hand, agriculture sector contributed (13%), while the average contribution of industrial sector; mining and manufacturing to GDP registered a negative sign in 1970s (-6%) despite the huge government investment spending in the second half of seventies. However, this sector accounted for 60% of the growth rate of the 1980s. In the 1990s, as the agricultural strategy adopted by the government was based on self-sufficiency programs by late eighties, agriculture sector contributed 60% of total output growth. Service sector witnessed a boom in the post reform period. In contrast to the 1970s, the expansion in this sector mainly reflected the strong growth in commerce, finance and insurance services, especially in the 2000s. Service sector's share in value added increased from 45% in 2001 to 60% in 2010, and its contribution to the growth accounted for 118% compared to a negative contribution of both industrial (-11%) and agriculture sectors (-7%).

Figure (3.5): SYR. Sectoral share in real GDP; 1970-90, and from 1991-2010



Author calculation based on based on CBS data

Table (3.6) SYR. Contribution to annual GDP growth by sectors

Decade	1970s		1980s		1990s		2000s	
Agriculture	3.22	13%	0.03	-4%	1.45	60%	0.25	-7%
Industry	1.24	-6%	1.4	61%	2.08	-2.80%	0.62	-11%
Services	5.73	92%	0.2	42%	2.43	42%	4.19	118%
GDP growth	10.2	100%	1.64	100%	5.9	100%	5.06	100%

Author calculation based on based on CBS data

In short, growth and structure of GDP of Syrian economy proved to be uneven during the entire period. The state was able to show a great ability to make a shift in its structure, most notably in the service sector, which showed a tremendous growth over the pre-reform period. It was the state commitment to expand the educational system, health care, and social services as part of the nationalization program, to construct residential facilities, and to increase defense expenditure, that contributed to the high rate of government service growth.

Investment in manufacturing sector is still weak; in terms of attracting Arab and other foreign investments, Syria ranked last among other countries of the southern and eastern shores of the Mediterranean Sea, in terms of openness to trade and foreign direct investments (15%, while Tunisia has 40%). Further, the period reveals a clear trend of using imported high capital intensive equipment, yet the manufacturing output was declining. This could be explained by weak productivity and/or less production capacity utilization (only 50-70 percent). Finally, the agricultural sector witnessed a severe drought crisis, water resources' mismanagement, and delayed implementation of vital irrigation system, in addition to the negative impact of cut in fertilizer subsidies. This agricultural contraction has had an impact on food security, prices, and, of course, industrial sector and growth.

CHAPTER IV

Development and Economic Growth in India: Policy, Strategy and Trends during 1950-2010

4.0 Introduction: India:

The Indian subcontinent consisted of several independent kingdoms spread from Hindu Kush mountains in the north-west to Bengal in the east and until down south. It is Mughals who have succeeded the Delhi Sultanat have united north India into an empire. Mughals Empire (1550) was mighty and had considerable political sophisticated institutions in the means of the large and systematic body. Persian laws put courts into practice, and most importantly, was their significant capacity for mobilizing an armed force, which eases the extracting taxes process from a mostly agrarian society (Kohli, 2004). However, it is the British who have united the south with the northern parts of the Indian subcontinent during the early 18th century and consolidated it into one country that they ruled for the next two hundred and fifty years.

This chapter focuses on the development of the Indian economy for the period (1950-2010). We also emphasize on past continuity and the role of various political, economic, and geopolitical factors in the formation of current India. The first section of this chapter is primarily introductory- a sketch over India's economic history before 1950. We limit ourselves to the most important events India had faced in history since the British colonial rule, and to some political, economic, and geopolitical factors did affect the subsequent economic developments of India. Section two of this chapter describes the development strategy of independent India and presents broad phases of the Indian economy until the late-1980s crisis and its consequences. Following this, we focus on the political economy of reform and the primary reforms introduced by the Indian government in 1991. Later, we review the performance of the Indian economy after 1991 until 2010. Finally, we inquire about the main feature of the Indian economic structure in the pre and post-reform period. Statistical survey of the most important macroeconomic indicators for the entire period 1950-2010, mainly Gross Domestic Product, Per Capita Income, Inflation rate, GFCF, and saving are presented in this chapter as well.

4.1 Historical Background of Indian Economy; Colonization and its Impact:

The economy of the Indian subcontinent before the advent of the British was a village-based, subsistence-oriented, and barter economy to a large extent. The division of labor production of goods and services was organized on caste lines- each caste is strictly assigned a specific occupation, and no vertical mobility was allowed. While this perhaps brought stability, but it hampered growth. Nevertheless, it explains why India had extremely skillful craftsmen producing textiles, gems & jewelry, spices, and traders specialized in long-distance trade with the Middle East and Europe. Arabian horses, guns, gunners, etc. were imported for exchange of spices and textiles on the one hand, while lower rung of society lived in misery.

Compared to other countries, however, the development in the subcontinent was reasonably high; India's per capita GDP peaked in 1600 for real wages of unskilled Indian labor (Roy, Banerjee, & Mahanta, n.d.). In the first half of the 18th century, India was a global manufacturing powerhouse. For example, Indian textile was exported to Europe, America, and Africa. This industry at the global standard of that time had relatively high productivity. By 1750, India accounted for about a quarter of the world's manufacturing output (Tharoor, 2016). Yet the socially divided subcontinent could not make its journey towards modernity when Europe was beginning. The country transport systems, like everywhere else, were inadequate due to poor road connectivity, and the degree of monetization was limited.

British fought a decisive battle in establishing the 'Rules'. During that time, East India Company played a critical role which was, ostensibly, to explore and trade with Asia. Later, besides trade, East India Company created a standing army, used superior military technology and organizational skills to conquer India one part to other (Robins, 2006). The East India Company kept lending military support to various kings, accumulated much wealth in the process of trade and the army operations. It became the most potent force economically and militarily. The Industrial Revolution in England, which was financed through these riches, in turn, made the British much more powerful. The policies of the British, like taxation, transportation, inland waterways, etc. had one hand led to commercialization and development of a market society, and an impoverished economy in terms of income. On the other helped to transfer wealth, seek cheap raw materials and enrichment. While the nature of the economy and society underwent some changes, the economy then is made amenable to serve the interests of the Raj. Only after getting independence, India got an opportunity to develop its economy, which we shall discuss in the following sections.

4.1.1 Indian Economy under Colonial Rule:

The East India Company's economic policy needs to be discussed with respect to agriculture, taxation, and trade. Agriculture was the sector in which 86 percent of the population directly depended in India, and secondly, about the handlooms on which 14 percent of workforce depended. The land administration under the Company rule was such about 40 percent of the country under the indirect control of princely states and the rest under the direct rule of the former. With an eye on maximizing the land revenue, all land is divided into two segments. The first was given to various Zamindars, who were mostly erstwhile *mansabdars* under Mughal administration, under Permanent Settlement (mostly in Bengal and Madras Presidency). These Zamindars were made official owners of several numbers of villages under their command from which they collect revenue as rent, remitted a specified amount to the British, and retained the rest. The second segment of land was given to individuals as farmers under *ryotwari settlements*, who would pay land taxes directly to the British. These two revenue systems have played havoc with the Indian farmers by charging excessive rents and taxes.

The colonial rule experienced frequent famines, which were a direct result of the stringent land tax in different parts of the Indian subcontinent during the 18th and 19th centuries. Its tax policies imposed a forceful commercialization process compelling farmers to produce non-food crops such as opium, cotton, indigo and sugarcane, which had not only seriously reduced food security but also increased role of traders and middlemen.

However, as the Industrial Revolution in England became successful since 1750 and Manchester cotton mills began producing cotton clothing, the East India Company began discouraging Indian calico by imposing heavy export duties. On the other hand, it started encouraging the export of raw cotton and cotton yarn, which made the raw material cost of Indian handloom expensive, which finally reduced its prospects on the other hand. The British textile sweep India, which led to the reallocation of Indian workers to agriculture and a widespread 'deindustrialization' of cotton textiles in Bengal. The Indian economy significantly disrupted, too many barriers to trade and free trade with Britain only, with lack of infrastructure and resource mobility, fatigued the economy with land taxation, the rate of industrialization starts to slow down.

However, a merchant class of Indian origin, emerged at that time, who have accumulated profits by trading opium, cotton, indigo and jute with the British Companies, like Tatas, Birlas, Srirams, Dalmias, Zaveries, etc. They have got an opportunity to invest in the industry during the First and the Second World Wars. Because of war, the supplies between England and India were affected, and Indian companies were encouraged to invest in the

production of cotton mills, jute mills, steel mills, etc. Thus a small class of Indian entrepreneurs began to emerge around the colonial cities of Bombay, Calcutta, and Madras. These cities, which have grown as industrial cities, continued to keep the lead in the post-Independent period too.

4.1.2 Impact of Colonial Rule:

The trade with East India Company for more than a century before the advent of the industrial revolution was in favor of India. There were a lot of silver and gold inflows that happened during 1650-1750 A.D. The industrial revolution changed the tables and East India Company reduced finished products from India and drew more primary products [Rothermund (2004)]. However, this trade created a huge Indian merchant class, who later became industrial class (Bagchi & Amiya, 1989). The peasantry, however, were squeezed (Habib. I, 1984). The scholarly opinion is that the net impact of colonial rule, despite the creation of a small and weak industrial class, is conclusively negative. According to nationalists like Dadabhai Nauroji in 1928 and also by Patnaik and Jomo (2006), they had estimated the net drain of wealth from India, which indeed contributed about 10 percent annually of Britain's national income for a century. The drain of wealth was in the form of five-time higher salaries to British personnel in army and administration, import duties, and capital flight through exchange rate depreciation of rupee against the pound sterling. Industrial capitalism in England is substantially financed by a drain from colonies like India, besides becoming major markets for its industrial commodities. By 1800, India's per capita GDP slopping downwards and India contributed to less than 3 percent of the world's manufacturing output. Furthermore, the national income growth during 1900-47 remained 1.02 percent, which is below the population growth of 1.45 percent. Thus the colonial economy, on hand commercialized, the growth potential the country was pushed back by a century.

Colonial state was ruling over a downright primitive agrarian economy; it did nothing to improve its productivity; instead, it made the situation worse. With high tax system lead to lower efforts in working the land and less interest in bringing about agriculture improvement. Hence, the productivity of agriculture during the colonial period was not that much different from the Mughal Empire. Data available for the first half of 20th century shows that public expenditure was modest around 10 percent per annum, goes basically for running the state and infrastructure in order to facilitate trade only, this means no spending channeled to agriculture or industry which was subjected to British 'laissez-faire'. Colonial state mainly focused on export, especially raw material like jute, and for that purpose, it improved kind of

infrastructure, particularly railways, to lift the trade up. While the industry was a lesser concern, it did not work for boosting industry directly or even indirectly by British industrialists (Habib, 1987).

Indian economic growth did pick up in the very late 19th century and early 20th century (significant impact of WW1 and WW2) under the British rule (Thirthankar. R, 2004).

In sum, the colonial policy succeeded in making two main things in India: the first is the geographical unity achieved through active political control, administrative policies, and policy of annexation. Second, monopolize the trade and sale of all kinds of raw materials through an extensive transport network. On the other hand, the reversal of the textile policy led to considerable deindustrialization of Indian textile industry. Through massive demand compression, through the system of commercialization, the colonial system extracted massive saving from Indian people towards several invisible payments, which retarded industrialization process. Education was part of creating a class of clerks in order to support the British in ruling and strengthening political power. To a little extent, one may count some of the most important positive contributions of colonial rule over India: railways, irrigation canals turned to agriculture, a general notion of an institution like English language and top-flight universities, courts and legal system, and some ideas of human rights, science and technology to a limited extent (Lewis. J.S, 2011).

4.1.3 The Independent Indian State:

India received its independence after a prolonged internal nationalist struggle in 1947 after WWII. As we mentioned above, war-led demand contributed to the emergence of a domestic capitalist's class from upper class, new-money lending class, and new middle class or new landed aristocracy, who already got some British education and benefited massively from the war and were able to build up an industries that took advantage of a market opportunity as it arose. This class had a significant role within Indian economy after the war in drawing the shape of the state that emerged at the time of independence (Kohli, 2004). This stratum of interest groups mainly industrialists, big farmers and trade unions pushed the state for protectionism and introducing tariffs, demanded backing from nationalists government (Ibid, 2004), in which they conduct and provoke for a long term political alliance between the business group and Congress (Venkatasubbiah, 1977). The Bombay Plan 1943, drafted by the 20 top business heads, has suggested the mixed economy strategy, with the state investment in infrastructure & capital goods and private players to invest in consumer goods.

Thus, the economic policy of post-Independent India is a result of the diverse configuration of classes that the Congress party represented in the struggle for independence. Congress party had patronized different classes like industrialists, landed aristocrats, small peasantry, newly educated professions like lawyers, doctors, civil servants, etc., and also workers in traditional as well as modern industries. From an ideological point of view, it had Gandhians, Socialists, Communists, right-wingers as well as advocates of capitalism. Hence Congress Party itself became a representative of wide-ranging social and economic interests, which were often conflicting. There were broadly two models of economic development, a pure market-led capitalist model with liberal democracy on the one hand and a planned egalitarian socialist command economy on the other (Kohli, 2004).

Under the leadership of Jawaharlal Nehru, the then towering personality in the Congress leadership adopted a pragmatic economic model of development where private capitalists will coexist with the public sector and state to address the issues of poverty, inequality, employment and growth through its various policy instruments. Broadly described as '*mixed economy*' which has both features of capitalism as well as socialism, at least in rhetoric.

4.2 Economic Development and Strategy of Planning In India.

India's democratic complexity determines the model of development, driven by a relationship between state and society- penetrated by social actors. Planning Commission had been established in 1950, and the First Five Year Plan was set (1951-56). Nehru in the Second Five year Plan sought to combine British Parliamentary Democracy with Soviet-style central planning, resulting in a Mixed Economy where the Private sector relatively free.

The direct goals of planning, therefore, had been articulated with the Second Five Year Plan: (1) accelerate rate of growth (to 5%), (2) accomplish rapid industrialization and diversify India's production base, (3) building up an indigenous capacity through Import-Substitution strategy, (4) achieve Self-sufficiency in major areas of industrial and agricultural production, (5) eradicate poverty and unemployment (Social justice and regional development), and (6) realize structural transformation.

The Planners' main concern was about the nation's existing production structure where consumer goods contribute to 62% of the total industrial output compared to 11.5 % for the iron, steel and engineering industries (G. P. Manish, 2011). Thus, it was quite understood that raising the rate of gross fixed capital formation is the key to increase the levels of income and productivity

Industrial Strategy:

The Planners have chosen to focus on capital goods, not consumer goods, using a technical growth model known as Mahalanobis's model. The model has been taken in a time of vastly believed that the main constraint of growth was capital stock or 'saving bottleneck' (S. Chakravarty, 1989). The model provided the intellectual basis of Indian planning as the core strategy of national socio-economic transformation upon independence. Yet, the Indian state favored not to nationalize the industries and acknowledged the private sector's role to be active along with the public sector³⁰. Nevertheless, broad measures of controls and regulations put over the private sector's actions³¹ (Hanson, 1966).

However, the overall controls by India's state were fit comfy for the central planning objectives (S. Shenoy, 1971). They were a means to an end, to drive private investment and production to the plan priorities. The emphasis on the public sector's primacy in the country's economic development in general and industrialization, in particular, did not rule out the private sector's role. In Singh's view, the private sector (in the mid-1960s) held sway over a significant part of capital because of the absence of comprehensive progressive measures of nationalization³².

Agriculture Strategy:

At the time of independence, land tenure system was dominant and involved with many layers of intermediaries, going back to the Permanent Settlement system created during British rule. The system had created a high inequality in land ownership, concentration agricultural land in the hands of landed aristocracy class. Thus, the post-independence priority was to introduce land reform agenda, abolition of intermediaries, and tenancy reform. Although the inefficiency and slowness of land reform agenda implementation (Appu, 1996), by the 1950s, almost all Indian states had enacted land ceiling legislation.

With the first three plans during the Nehru era, the agricultural sector witnessed tremendous agrarian reforms and institutional changes, most notably abolition of

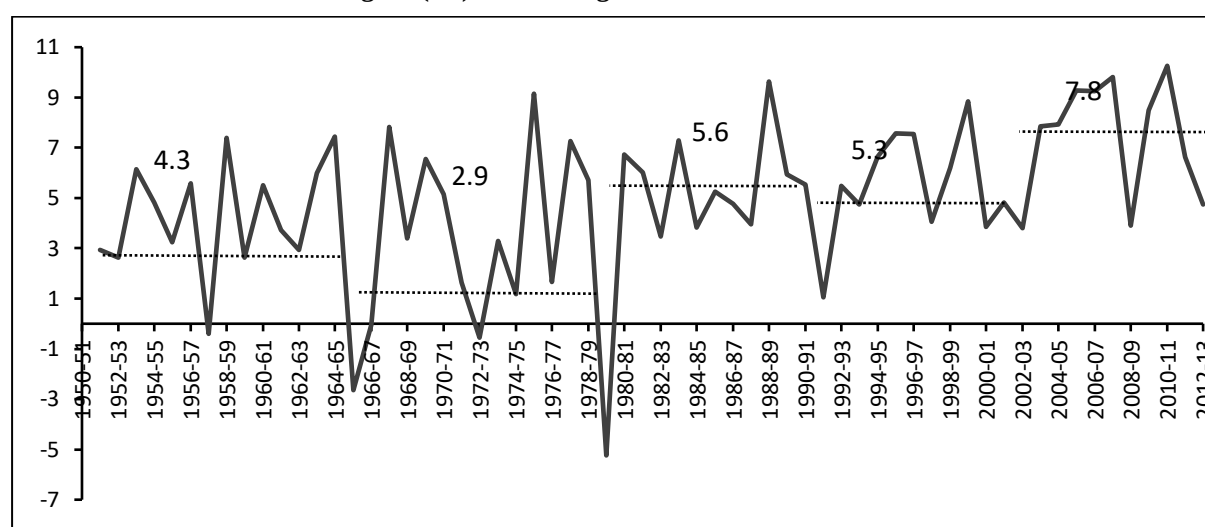
³⁰ The Industrial Policy Resolutions (IPRs) of 1948 and 1956 defined the structure of the Indian vision of socialism (Virmani, 2006). It divided the economy's industries into three broad categories³⁰. First, the state would have exclusive rights on all heavy industries; iron, steel, electrical plant, coal, etc. Second, industries would gradually establish new units by private and public sectors. Third, small industries would be the private sector's responsibility via a licensing system (Bhagwati & Desai 1970, 142–43).

³¹ Act of 1951 for industrial licensing; Essential Commodities Act of 1955 for production control, distribution and pricing (Hanson, 1966); The Companies Act and Capital Issue Control Act of 1956 (S. Shenoy, 1971); Capacity licensing MRTP which regulate activities of large firms; a large number of import and export controls was carried on aimed at comprehensive and direct control over foreign exchange utilization (Bhagwati & Desai, 1970).

³² V.B., Singh (ed.) Economic History of India, 1857-1956 (New Delhi: Allied Publishers Ltd., 1965) p. xxxii.

intermediaries. Additional development programs introduced by the government at that time, including The Community Development Program and the Intensive Area Development Program. Later, in the mid-1960s, a new agricultural strategy was adopted, known as ‘The Green Revolution’. The most significant achievement of this stage has been the realization of self-sufficiency in food grains. In contrast to these achievements, land reforms were suspended (Rao, 1996). In the following sections, we present broad phases of the Indian economy until 2013-14.

Figure (4.1) IND.GDP growth rate; 2004-05: 100



Source: Reserve Bank of India, 2019

4.3 An Outline to Broad Phases of the Pre-Reform Indian Economy: 1950-1991:

4.3.1 Nehru Era; 1950-64/65 Planning and Abolition of Intermediaries:

The creation of the Planning Commission in 1950 constituted the cornerstone of the socialist pattern of Indian society under Nehru's influence (Joshi & Little, 1994). However, central planning, as a model of development, was expressed in the Second Five-Year Plan (1956/57 -1960/61) with the technical Mahalanobis's growth model. Large rise in the ratio of GFCF to GDP was emphasized, the focus of the Second and Third Five-Year Plans essentially was on the industrial sector-basic and heavy industries. Public sector took up the responsibility of creating basic infrastructure, running entrepreneurship, and provide the social needs for social justice and equal opportunities (Joshi & Little, 1996).

During the fifteen years under consideration, covers the first three FYPs from 1951-66, India witnessed a massive growth in the capital goods sector not only in the heavy industries but in infrastructure, rural and urban electrification, irrigation, technical know-how, and design engineering capacity. Total investment increased from 10% of GDP in 1950 to 16.5% of GDP

in 1965, where public investment grew at a fast pace rising from 2.8 Billion rupees in 1950 to 8.6 Billion rupees in 1965/66. Majority of resources channeled into industrial investment; machinery and equipment, steel and metal, and chemical, together in the second and third FYPs accounted more than 70 percent of total planned expenditures in the industrial sector (Bhagwati and Desai 1970). Industrial output grew at 7.9% during the 1950s, recording the highest rates of growth during the decade of 1950s. The industrial capacities were vastly improved in many different areas in basic and capital goods, which are central to the Mahalonabis model, in addition to transport and communication. However, the role of the private sector increased by 1.5 percent annually during this period- private industrial investment- registered 2,330 and 10,500 million (in current rupees) during the First and Third FYPs, respectively (India Planning Commission 1966, 11).

Table (4.1) shows GDP growth rate, per capita GDP, GFCF, public and private capital formation, and savings, as percentages of GDP, for the first three FYPs in India. GDP growth was about 3.9 % against a target of 5 %. GFCF to GDP ratio increased steadily over the years, and private investment was growing but not at the same pace of public investment. The gap between public savings and investment reached 3% of GDP in 1960/61, which was filled mainly by foreign aids, especially from the US in the 1950s till the early 1960s, exactly in 1966 when the situation changed dramatically and the geopolitics got more complicated.

Table (4.1): IND. Some Macroeconomic Indicators 1950-1969

	First FYP	Second FYP	Third FYP	Total Period	The Mid-1960s Three-annual
	1950/51 to 1955/56	1956/57 to 1960/61	1961/62 to 1965/66	1950-1966	Plan holiday
GDP %	3.9	4.1	3.5	3.9	3.7
Per Capita GNP %	1.8	2.16	0.52	1.5	1.66
GCF: Total %GDP	10.3	13.8	15.7	13.1	15.3
GCF-Public %GDP	3.6	6.3	7.9	5.7	6.7
GCF- Private %GDP	6.7	7.5	7.8	7.5	8.6
Saving %GDP	9.74	11.02	12.7	11	12.6
Saving- Public %GDP	2.0	2.4	3.7	2.7	2.7
S- HH-Private %GDP	6.7	7.5	7.3	7.2	8.8
S-CO-Private %GDP	1	1.1	1.6	1.2	1.2
Inflation rate %changes	-2.7	6.3	5.8	3.1	8.1

Source: Reserve Bank of India (2019), 2004-05 base year. Note: Gross saving and Investment in India have taken as a percentage of GDP at Current price (2004-05 base year). Sectoral saving ratios may not tally due to rounding. The differences are mainly to the adjustment for error and omissions. S-HH: saving of household. S-CO: saving the Corporate Sector. GDCF: gross domestic capital formation.

Further, the first phase of land reforms were introduced. Reforms covered abolition of intermediaries; Zamindaries, Jagirdaries, etc., and land distribution, mostly to the tenant farmers who were cultivating earlier. This has released some land and expanded the area for cultivation. Later, the Third Five Year Plan gave a concrete interpretation to self-reliance, in particular, self-sufficiency in food production. As a result, agricultural output rose at 3% during the 1950s but fell to 2.3% in mid-60s, averaging 2.8%, food grain output has increased at a rate of 3.6% during 1950-60, but it has plunged to 1.7% by 1964; with no improvement in yield, there was a dire need to increase productivity. Though there were some changes during the Third FYP (1961-66), it did not go far enough; mid-sixties unforeseen disturbances have affected the entire economy performance, and a Plan holiday was observed during 1966-69.

However, in the following section will examine whether the crucial economic weight established during the first three FYPs continued in the subsequent periods, 1965/70-1990/91. First, we go through the Mid-sixties and seventies decade 1965-1979; second, 1980-1991 of Partial Liberalization and Growth Acceleration and 1991 Bop Crisis.

4.3.2 Mid-Sixties Industrial Stagnation & Green Revolution; 1965-1979:

All economists agree that India's toughest economic time called the mid-sixties (Panagariya, 2010). During this period, there was a severe macroeconomic shock, successive-monsoon failures that severely reduced food grain growth, and led to an increase in raw materials' prices, population pressure and a war in 1962 with china, and with Pakistan in 1965 followed by a suspension of the U.S. aid. The government diverted expenditures to the defense, which doubled in 1956/66 of 3.2% of GDP compared to 1.6 in 1960/61, and fiscal deficit rose to 6.7% of GDP in 1956/66. Mid-sixties macroeconomic crisis reflected in severe inflation of 8.1% on average and balance of payments position deteriorated, current account deficit as a percent of exports pointed 84 percent in 1966/67.

A prolonged industrial stagnation occurred since 1965 to 1976- industrial growth fell to 3.6% compared to 7.6% in the first three types, capital goods fell to 1.8%, basic industries to 6.2% (compared to 10.4% in the first period) and consumer goods growth fell to half to 2.5% (Srinivasan & Narayana, 1996). The government had addressed some conservative-liberal policies and followed a contractionary fiscal policy; real gross capital formation of public sector fell by 23% during 1966/67-1967/68 with an additional fall of 8% in 1968/69, affected by foreign aids decline.

In contrast to the industrial sector, a prominent achievement had observed in the agriculture sector during the Third Five-Year Plan (1961-66). It was the 'Green Revolution,' in

which a new agricultural strategy was adopted: more subsidies for fertilizers and new high-yielding seeds reflected a higher output in the agriculture sector, increased production and exports in 1977 and 1978. The green revolution from the early seventies kept both the inflation rate and poverty relatively down. Further poverty alleviation measures were introduced, such as IRDP schemes.

Despite all the external shocks, India's GDP achieved between 1969/70 and 1978/79, on average 4% per annum. GDP growth rate accounted for 3.2% in the 4th plan, however, from the mid-1970s, India seems to shift from modest to high economic growth, corresponding to a 5 percent growth rate during the 5th plan. This could be due to a substantial rise of saving and investment rate (gross saving reached 20% of GDP for the first time in 1977/78 which laid the foundation for fairly high growth), a sharp step-up in public investment in large dams and irrigation enabled proliferation of HYV adoption and increased productivity in agricultural sector brought on by the green revolution, and the expansion of credit following bank nationalization in 1969 (Balakrishnan, 2010).

Table (4.2): Indian Economy, 1969/70 to 1978/79: Some Macroeconomic Indicators

	Fourth FYP	Fifth FYP	Total Period	Annual plan
	1969/70 to 1973/74	1974/75 to 1978/79	1970-1979	1979/80
GDP %	3.2	5	4.1	-5.2
Per Capita GNP %	1.08	2.64	1.86	-7.33
GCF: Total %GDP	15.9	18.7	17.3	21
GCF-Public %GDP	6.9	8.8	7.8	10.2
GCF- Private %GDP	9	9.9	9.5	10.7
Saving %GDP	14.8	18.6	16.7	19.9
Saving- Public %GDP	3.3	5	4.2	5
S- HH-Private %GDP	10.2	12.3	11.2	13
S-CO-Private %GDP	1.4	1.4	1.4	1.9
Inflation rate %changes	10.3	6.3	8.1	17

Source: Reserve Bank of India (2019), 2004-05 base year. Same notes on table (4.1)

4.3.3 Partial Liberalization and Growth Acceleration and 1991 Bop Crisis; 1980-1991

The achievements of the sixth and seventh FYPs in India were substantial compared to the legacy of the 1970s. In the post-second oil shock, Indian government pursue a relaxed fiscal policy in which subsidies doubled to 2.5% of GDP in 1984, and fixed public investment did

indeed grow at 3% on average annually during the sixth plan; registered 10.9% of GDP (6th Plan) compared to 8.8% (5th Plan), while private investment grew at slower rate reaching the same level of public investment of 10% during this plan. The expansionary policies in the first half of the 1980s, accompanied by a partial liberalization, was undertaken since 1981, contributed to a higher growth making the 6th Plan growth accelerate to 5.5 %. However, export growth was sluggish, and remittances stopped growing after 1981/82 (due to Iran-Iraq war). Later, under the seventh FYP, from 1985/86 to 1989/90, the Rajiv Gandhi government made some tentative moves into a liberal path. The policy derived from a redefinition of the relationship between state and private sector to be most conducive; a pro-business policies³³.

Table (4.3): Indian Economy, 1969/70 to 1978/79: Some Macroeconomic Indicators

	Sixth FYP	Seventh FYP	Total Period	Annual plan	Annual plan
	1980/81 to 1984/85	1985/86 to 1978/79	1980/90	1990/91	1991/92
GDP %	5.5	5.9	5.7	5.5	1.1
Per Capita GNP %	3.16	3.34	2.29	2.95	-0.62
GCF: Total %GDP	20.7	23.5	22.1	24.9	22.5
GCF-Public %GDP	10.9	11.4	11.1	10.6	10.2
GCF- Private %GDP	9.8	12.1	11	14.3	12.3
Saving %GDP	17.6	19.5	18.5	22.9	21.3
Saving- Public %GDP	4.4	3.1	3.7	1.8	2.6
S- HH-Private %GDP	11.7	14.6	13.2	18.5	15.7
S-CO-Private %GDP	1.5	1.9	1.7	2.6	3.0
Inflation rate %changes	-	6.7	-	10.3	13.7

Source: Reserve Bank of India (2019), 2004-05 base year. Same notes on table (4.1)

During this plan, the domestic private sector was given greater room to operate, with some industrial deregulation. Private sector capital formation grows rapidly pointed 12% of GDP (7th Plan) - exceeding the public investment, which stood at 11%. The consequence of liberalization and fiscal expansion did lead to a faster growth that incommensurate with the modesty of reforms and disproportionately benefited services. India's GDP grew at 5.7% (7th

³³which can be summarized as follow: (1) industrial deregulation, licensing and capacity expansion, (2) easing some restrictions on imports of capital goods, (3) export incentives and exchange rate depreciation, (4) some fiscal policy measures were undertaken mainly through lowering direct taxes and modifying excise tax structure.

Plan). Nevertheless, problems were stored up for the future by the fiscal deterioration and the lack of current account adjustment.

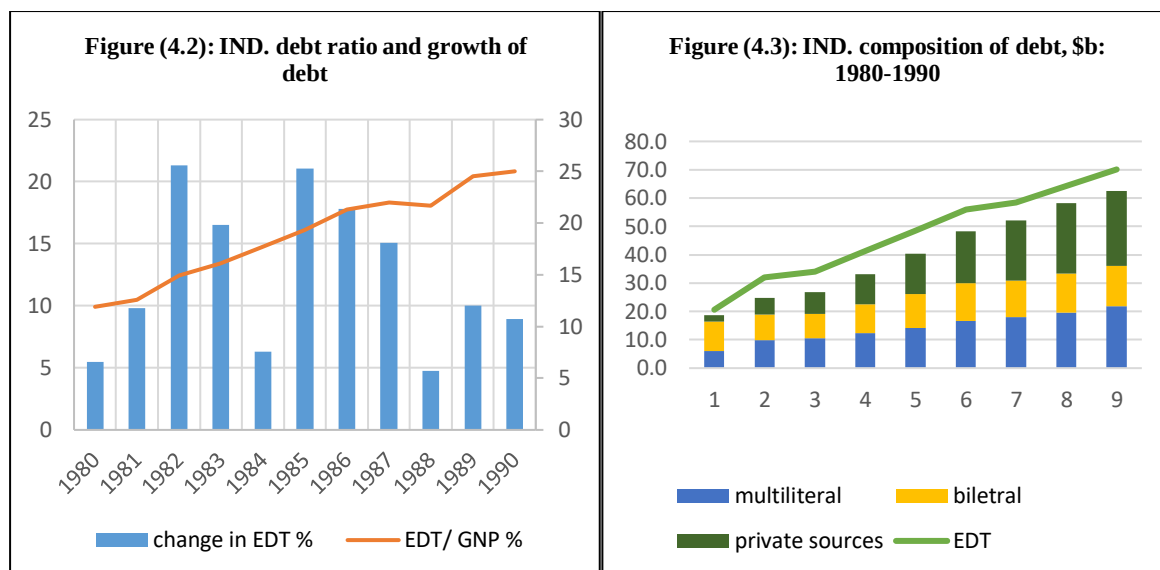
The debate over the key contributions to the high growth in the 1980s was overheated. However, the slogan of ‘growth first’ relied on two aspects: (i) Pro-Big business³⁴, and (ii) taming the labor which considered necessary for the first one. Further, Rajiv Gandhi years 1984-89 marked by (i) beef up infrastructure by public sector, and (ii) new technology segments like IT, computers, communications introduced in the direction of private sector, which helped stimulate growth. In short, it can be said that India from 1980 onward has partially shifted toward the Asian model of developmental state as a pro-business state. And according to Kohli, this pro-business stance certainly seemed to have accelerated the growth, which stagnated during the 1970s.

4.3.4 Bop Crisis In India:

India started the decade of the 1980s with a high current account deficit in GDP terms. The deterioration of trade balance and BOP took place mainly due: (1) imports of non-oil rose substantially; and (2) The balance of non-factor services declined in which current transfer declined after Gulf countries' tight immigration policy by the end of the Gulf boom, along with falling in non-factor services largely because of interest payments on the increased external borrowing.

Over 1980-85 and 89, external borrowings had grown at a faster rate compared to the earlier period. Total debt stock was increasing by 20 percent on average per year. The debt-to-GNP ratio in India, which was at a moderate level in 1980 by 10 percent, almost doubled over 1982-88 and peaked in 1989 to 24.5 percent. Debt burden rose steeply during the second half of 1980s from 42\$ m in 1985 to 64\$ million in 1989. Further, TDS/ XGS ratio increased from 9.3% in 1980 to 22.7% in 1985; the level was not dangerous at that time since exchange reserves were comfortable with 5.4 months of import cover in the same year.

³⁴(1) Dilution of MRTP, deregulate chemicals, ceramics, drugs, cement; (2) Financing the expansion: Capital market for private sector; (3) Indira Gandhi described ‘forms of industrial strikes as anti-social demonstrations by an irresponsible few.’



Source: World Debt Table, 1992

Data from WB on debts composition of India, from 1980 through 1990, short-term debt and IMF credit represented 14 percent of total external debt versus 86 percent as long-term debt for the entire decade. Under the category of long term, multilateral (IDA & IBRD) stayed at an average level of 30 percent with a steady increase in private sources, guaranteed and non-guaranteed from 12.8 to 42.3 percent. Moreover, concessional loans, which come mainly from IDA, constituted 80 percent of total debt in 1980, fell gradually after 1981 to the half in 1986. Thus, there was a worsening of the debt profile of India; along with fall of bilateral and concessional long-term borrowing, the largest of all capital flow came from private sources commercial bank loans, short-term debt, and NRI deposits, together with increased from 11 percent in 1980 to 38 percent in 1989 of total external debt. Such debt characterized by shorter maturities and market-based interest rates counters to bilateral loans.

Hence, as India laden of commercial borrowing with a high and flexible interest rate, interest payments increased to more than half of total debt service by 1989, constituting about 1.3 of GNP compared to 0.9 in 1983. The ratio of interest payments to exports of goods and services went up from about 9.4 percent in 1983 to 14.4 percent in 1989. Therefore, the large rise in the size of the absolute debt and the larger proportion of debt rescheduled on harsher terms, the debt servicing payments of India increased from 2 billion \$ in 1983, \$3bn in 1985, and to \$7bn in 1990.

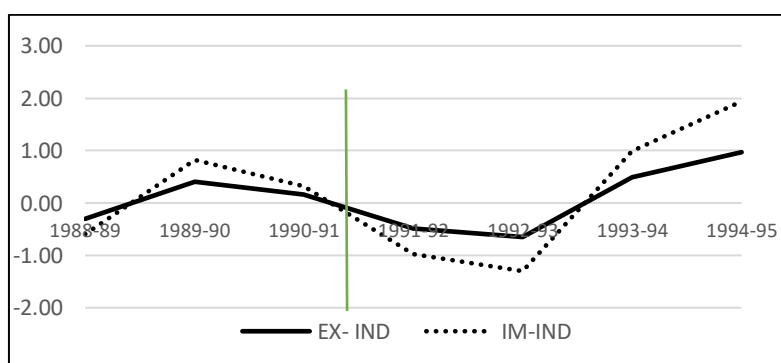
India's official lending dropped off and a big change in the composition of borrowing toward non-concessional sources, with a high-interest rate, hardened overall debt through an increase in debt-service ratio to 29.8 in 1990.

4.4 Political Economy of Reform in India:

In the Indian context, the economic reforms' process, origin, and its prompt of modern period of full-scale reforms after 1991 had been studied extensively. Srinivasan (1990, 2002); Joshi and Little (1996); Baldev Raj Nayar (1998); Ahluwalia (2002); Bimal Jalan (1993); Bardhan (2005); Ashok Desai (1993); Sen (2004), B. Raj (1998) etc. Most studies described the reforms as a response to a full-blown payments crisis as an outcome of stilted finances, supported by domestic and foreign borrowing with reserves down to only a fortnight's worth of imports, rather than by the IFIs. Others, like Kohli (2006), argued that political ground was not sufficient to take off in the first phase in 1980s; he attributed that to political factors related to what he called 'evolving visions of policymakers', in which they became willing to work within a competitive environment in the 1990s. Hence, India's pro-liberalization policy-makers brought down the new global conditions and divisions inside Indian capital class, providing new conditions that pushed through significant policy shifts by 1991 in the form of conditionality's set by the IMF for structural adjustment.

Additionally, the collapse of the Soviet Union was a milestone in the world international relations. India was a strategic partner to the USSR of both bilateral merchandise trade and as armaments and defense materials supplier from the early 1970s. However, the context of disintegration led to a collapse of Indo-Soviet relations, and it recovered after 1994. Total materials supply (crude oil and other raw, vital spare parts) was affected significantly which played havoc with Indo-Soviet trade relations as well (see figure 4.4). Thus, the situation put a necessity to improve the relation with the US and seek financial assistance from IFIs for the national security of both exchange and defense reserves.

Figure: (4.4) IND. EX & IM with the Soviet Union



Source: World Bank

A Part from the reasons mentioned above, it is important to understand India's external debt composition, which had a crucial role in implementing the total package of neoliberal agenda of WC. The total debt profile viewed a shift from multilateral and bilateral concessional forms of finance toward private sources commercial banks, short-term debt, and NRI deposits. Other external reasons lie between; lobbies corporate pressure in the world to invest out seas, with the growing availability of investible resources. Besides, the establishment of NAFTA and WTO³⁵.

India went twice for IMF loans during the 1970 and 1980s. First to withstand the 1969 Korean Crisis and in 1981 during the second oil crisis of 1979. Both times, the reforms had an adverse impact, India prematurely repaid its loans and got out of the conditionalities (Patnaik and Chandrashekhar, 2008). However, by the late 1980s, a loose combination of IMF-trained bureaucrats, a section of business media and US-returned Indian academics began criticizing the license permit quota raj of excessively controlled industrial regime (Bhaduri & Nayyar, 2007) and argued that there is no alternative (TINA). The Gulf War of 1991 provided the moment to push the Indian state to accept the conditionalities on the ground that India would default its loans and there were no foreign reserves beyond two weeks. The demise of the Soviet Union and Soviet Block Rupee-Ruble trade, the Indian state decided to take the bait. There are critics to this, who argued that there was no impossible occasion, had Indian banks accepted Kuwaiti Dinars, brought home by the beleaguered Indian emigrants and manage the crisis by a mere short term loan. But fate or circumstances, there was a breakdown of consensus in the Indian establishment towards planning and state-led development towards a market-led roll-back state strategy with open arms to FDI (Patnaik & Chandrashekhar, 2008).

4.5 Post-Reform Indian Economy; 1991-2012-2013 Liberalization & Structural Adjustment:

4.5.1 Recovery 1992-2003:

The year 1991/92 constitutes the foundation of a systemic shift from state-led to towards a market-led economy, with a large private sector's role (foreign and domestic) to achieve development. The major reforms introduced could be divided into two parts stabilization Program and structural adjustment. Since some reforms could magnify the

³⁵ Mitu Sengupta, during her researches, found several decision-makers, including Manmohan Singh and Amar Nath Varma, arguing that these external considerations were essential considerations in why India had to liberalize in the early 1990s.

macroeconomic problem, thus, stabilization should be activated before structural adjustment took much faster steps. In India, the process of structural reforms even before short-term stabilization had been achieved (Joshi & Little, 1996).

Table (4.4): Indian Economy, 1992/93 to 2001/02: Some Macroeconomic Indicators

	Seventh FYP	Eighth FYP	Average
	1992/93 to 1996/97	1997/98 to 2001/02	1992-2002
GDP %	6.5	5.5	6
Per Capita GNP %	4.5	3.7	4
GCF: Total %GDP	23.4	24.9	24.1
GCF-Public %GDP	8.9	7.3	8
GCF- Private %GDP	14.4	17.2	15.8
Saving %GDP	22.5	24.2	23.4
Saving- Public %GDP	2.1	-0.3	0.9
S- HH-Private %GDP	16.7	20.7	18.7
S-CO-Private %GDP	3.7	3.9	3.8
Inflation rate %changes	8.7	4.9	6.8

Source: Reserve Bank of India (2019), 2004-05 base year. Same notes on table (4.1)

The structural economic reforms carried through 1991 onward were almost in all the economic directions including external and trade sectors, FDI and financial sector, privatization, government fiscal policies, etc. The thrust of reforms was to open India's markets to international competition, with the spirit of market-oriented and private sector-led encouraged by a pro-active role of the state. The scope of India's external economic reform as the third major component of reforms was quite dramatic in both trade reforms and capital inflow/outflow. The early reforms included the removal of MRTP restrictions in the industrial sector. In line with the IMF's "structural adjustment" perceptions, the efforts directed toward cut back public expenditure since the tax increase was difficult (N Kumar, 2000).

India's growth experience over the years followed reform gradually rising in the first years of the 1990s registering 6.4% in the 7th FYP. However, compared to the 1980s, the 1991 reforms have not made a remarkable turnaround in India's growth trajectory. It had declined to 5.5% during the 8th FYP. The Indian economy showed a slow down between the late 1990s and early 2000s; GDP growth from 2000-01 to 2002-03, on real average, slowed to 4.2 percent compared to the second half of the 1990s (1995-2000) of 7%.

An explanation attributed to the slowdown was the adverse impact of the information technology bubble. India's dependency on the world's economy was not enough big, and its exports primarily benefited from the IT revolution. Thus, a close examination of the decline of GDP could be attributed to a sharp decline in the software export (J. Raj et al., 2018). And to the operation of domestic sectors, mainly in agriculture and investment, rather than external factors (Rakshit, 2009).

In contrast, the second half of the 1990s was disconcerting in which GDP growth and per capita income for the period of 1997-2001 of 3.7% was lower from the average in the 1980s of 5.7%. Along with that, since the mid-1990s, agriculture and industrial growth rates decelerated.

4.5.2 The Dream-Run: 2004-2011

The second decade of reform was a big challenge for reforms and market-oriented strategy and orthodox reasoning in general. Following 2003, during the 10th FYP, GDP growth led by an unparalleled increase in TFP and capital stock. Progressive liberalization of private foreign investment and reduction in import tariffs integrated the economy more with the world. The period influenced by the external environment in which it contributed to evolving financial and economic structures. As a result, the service sector emerged as the dominant sector and primary driver of GDP by 54 percent in 2010. In contrast, the industrial sector saw a deceleration, especially the period 1995-2005. The revised annual growth in the 2008-09 was for mining 3.0%, manufacturing 3.3 %, and 2.7 5 for electricity.

Today, India is a major exporter of services, mainly IT and IT-enabled products, hand in hand with the increasing dominance of service-GDP ratio. During the year 2001-2010, GDP average growth rate was 7.2 percent. Except in 2008-2010, the overall growth rate had accelerated. Total trade average GDP was 38.57 percent for the period of 2000-2010. In 2010, India received FDI worth US\$ 37.7 billion, and portfolio investment worth US\$ 32.3 in the same year.

The phase of a downturn during 2008-10 reflected knock-on impact on the Indian economy through the trade, finance, and confidence channels, resulting from the global financial crisis and the international capital market. Finally, the high growth during 2005-08 of 9 % growth rate has vanished to 6.5 % during 2011-14. Thus, it becomes clear that there are structural impediments to high growth. During the 10th and 11th plan, the growth rate remained below the targets, as well as rates achieved by East Asian countries.

Table (4.5): Indian Economy, 2002/03 to 2011/12: Some Macroeconomic Indicators

	Tenth FYP	Eleventh FYP	Average
	2002/03 to 2006/07	2007/08 to 2011/12	2003-2013
GDP %	7.6	7.8	7.7
Per Capita GNP %	5.97	6.5	6.27
GDCF: Total %GDP	30.7	36.6	33.6
GDCF-Public %GDP	7.3	8.7	8
GDCF- Private %GDP	22.4	26	24.2
Saving %GDP	31.06	33.5	32.9
Saving- Public %GDP	1.9	2	1.9
S- HH-Private %GDP	23.1	23.4	23.3
S-CO-Private %GDP	6.1	8.1	7.1
Inflation rate %changes	5.2	7	6.4

Source: Reserve Bank of India (2019), 2004-05 base year. Same notes on table (4.1).

The service sector, mainly communications and finance, led to growth acceleration, while agricultural output and organized manufacturing, which supposed to be beneficiary of reforms, exhibit no trend break. The failure of the manufacturing sector to respond to reforms is due to the failure to improve agricultural productivity after the Green Revolution (Balakrishnan, 2010). He argued that the real price of food did not fall, limiting the expansion of the market for manufacturers and to the decline of public capital formation in agriculture.

4.6 Conclusion; Planning versus Reform:

After four decades of planning, and about three decades of liberalization; three things we need to emphasize here. First, how to assess the growth achieved during the planning era vis-à-vis the post-reform era. Second, a critical question is that what accounts for the growth during the planning era and reform era. Third, what type of structural change that took place during planning and reform period within the Indian economy?

The average annual growth rate of GDP registered 4%, 3.6%, 4.1%, over the three decades after independence, and 5.7% during the 1980s. Contrary to the fashionable view about the growth rate of the Indian economy during Planning Era, (Rakshit, 2009) argued that although this rate was modest compared to the Asian standard, but constituted a leap from the previous British government (1900-47) of 0.9%. Further, the growth rate was good with the record of Britain, the United States, Japan since 1820, and China during the same period (Balakrishnan, 2010b). It is illogical to compare the growth in the Planning period to the

subsequent period of reforms. The only logically correct way is to compare it with its previous era of colonial times. Compared to the colonial stagnation at 0.01 percent growth during 1900-47, the 3.6 percentage rate of growth during 1950-81 is way more. Then the growth rate during the partial liberalization period 1981-91, recorded a 5.7 percent rate of growth, which is naturally higher than its previous period. The subsequent period achieved even higher growth. Thus growth is normally cumulative and is built over the previous growth. Therefore, it is incorrect to argue that the Planning Period performed badly (Nayyar, 2007).

Close scrutiny of annual growth rate during planning era shows that first break in India's growth rate was in the year 1975/76 of 9%, and the year 1977/78 of 7.3% followed by 5.7% in 1978/79. From the fifth five years plan from 1975 to 1990, India was able to sustain a remarkable growth rate compared to other developing countries that witnessed a slowdown in the 1970s and 1980s after the two oil price shocks. GDP growth averaged 5 percent compared to 3.6 percent from 1951-1975, reaching a peak of 10% in 1988/89 (Rakshit, 2009) and (Panagariya, 2003). The overall success can be attributed to a sharp increase in saving/investment rate 21 percent of GDP at the current price, private and household saving, and a moderate inflation rate of 6.3%. After that, (1985-1990), the dependency on foreign saving had increased. Further, from the mid-seventies, India had achieved food security and reduced poverty, which came down from 48% in 1977 to 30% in 1987 (government of India, 1992). Further, inflation after 1975 was modest (except for the year of 1979). Thus, a radical transformation in food economy (after a periodic famine during British Raj) contributed to the decline in poverty and a moderate inflation rate. By the mid-1980s, India constructed a diversified industrial production in intermediate and capital goods, and the years after 1981 in 1983, 84, 87 witnessed an expansion of irrigation investment, which helps in avoiding supply shock again like previous years. According to Rakshit (2009), India did not benefit from its comparative advantages in the global market, especially in the steel and iron sector. Balakrishnan (2010b) pointing to the success of state-directed industrialization in East Asia, argued that India's policymakers' mistakes are promoting industry behind high trade barriers.

The 1980s decade was not a period when India's engagement with the global economy saw a significant rise. Trade, investment, and infrastructure reforms of 1991 constituted a break from the past, were largely path-dependent. The paradigm shift in the private sector and trade orientation was after 1991. Since 2000 there has been a second more intensive period of reform. It has been associated with a high growth rate of over 6.4%, 5.5%, 7.6%, and 7.8% percent between 1991 and 2013 covered the plans numbers 8, 9, 10, 11, respectively.

In any case, long term economic growth is cumulative; hence one cannot deny the economic base created during 1950-80 on which 1980-90 growth is achieved. Post-reforms growth, too, is a part of the cumulative process. Therefore it is not that we started seeing growth only after the introduction of 1991 reforms. In fact, there is no statistically significant acceleration [Nagaraj (2000) and Balakrishnan (2007)]. The Mahalanobis model could not fit in India 'with a substantial private sector response only to the profits' signals. Balakrishnan (2007) argued that the quickening of the economy was not only because of the expansion of state-investment programs, rather their directions as in a Big Push, in which investment went simultaneously to all sectors of the economy, accompanied by an identical expansion of the private corporate sector.

4.6.1 Social Welfare:

From the viewpoint of social welfare, life expectancy has increased from 32 in 1950 to 58 years in 1991, and 66 in 2011. Literacy has increased from 18% to 52% in 1991 and 74% in 2011. However, without education and health, the choice of opportunities is always narrow. In a comparative perspective, health and education were humble; however, they slowly rising—one also can notice loose divergence across the districts and between town and country.

Table (4.6): Selected social Indicators in India

SOCIAL INDICATORS	1950-51	1960-61	1970-71	1980-81	1990-91	2000-01	2010-11
Population (Million)	361	439.2	548.2	683.3	846.4	1028.7	1210
Birth Rate (per 1000)	39.9	41.7	36.9	33.9	29.5	25.4	21.8
Death Rate (per 1000)	27.4	22.8	14.9	12.5	9.8	8.4	7.1
Life Expectancy at Birth (in years)	32.1	41.3	45.6	50.4	58.7	62.5	66.1
(a) Male	32.5	41.9	46.4	50.9	58.6	61.6	64.6
(b) Female	31.7	40.6	44.7	50	59	63.3	67.6
Education: Literacy Rate (%)	18.3	28.3	34.4	43.6	52.2	64.8	74.04
(a) Male	27.2	40.4	46	56.4	64.1	75.3	82.14
(b) Female	8.9	15.4	22	29.8	39.3	53.7	65.46
Health & Family Welfare							
Registered Medical Practitioner (Thousands)	61.8	83.7	151.1	268.7	393.6	587.2	922.2
RMP per 10,000 population	1.7	1.9	2.8	3.9	4.7	5.7	7.6
THE-GOV (%GDP)*						0.8	0.9

Govt. share in THE (%)*							26.2%
Gov. Expenditure on Education (%GDP)	0.64	1.5	2	2.8	3.8	4.2	3.8

Source: Economic Survey: 2012-2013 *THE: total health expenditure, data from World Health Organization (WHO).

Education was made an integral part of development planning (Tilak, 2005), yet the expansion in quantitative terms was at a slow pace from; expenditure share in GDP started at 0.7% in 1951 and slowly rose to 3.8% in 2011. The government of India initially focused more on higher education and somewhat neglected school education (De and Endow, 2008). The neglect of school education continued into the post-reform era, with lower levels of public spending, deteriorating the level of primary education and led to low levels of achievement. On the other hand, after the reform, the health sector seems to be moving towards a market in India in which the government share in THE is only about 26% and only 4% in terms of percentage of GDP-slowly drawing from the health sector, while the private health sector is increasingly dominating more and more resources of more than 3/4 share. India is risking its future economic growth by under-investing in two key areas important for workforce productivity, according to a new study.

The most disturbing feature in the post-reform period is that income inequality has increased significantly. By broad structural features and by all measures, inequality has increased after reform. The UN report on inequality in India: different measurements, same trend; inequality, at the national level, sparked significantly, particularly since early 2000s (UN, 2017). In 2008, National Commission for Enterprises in the Unorganized Sector reported that the 1990s reforms could hold the responsibility for income inequalities, in which did not create jobs to the people; rather it enhanced the business community's position and income.

A study by Chancel & Picketty (2017) based on a long historical time series of income inequality estimates, reported that income inequality in India declined sharply between the 1950s and 1980s but has increased after that. Since the 1980s, the income share of the top 1% has been increasing, reaching 22% of income for the most recent years by 2011. The study also reported that poverty is more in rural areas, and concentrated in a few large states of north and eastern India. Based on National Sample Survey, the high growth rate achieved during the 1980s was accompanied with a poverty alleviation programs, which led to a significant decline in poverty from 44.5% in total in 1983 (average urban 40.8% and rural 45.6%) to 35.2% in 1991 in total.

However, in the Post- Reform period, the NSS data for 1997 (53rd round) revealed an increase in rural poverty ratio by 3.42%, while urban one declined by 1.32%. In 2004-05, about 27.5% of Indians or 302 million were poor (R Nagaraj, 2015).

Poverty reduction is difficult to achieve through growth alone if India fails to address the structural factors that prevent the chronically poor from getting out of poverty. Hence India's journey of transformation is far less completed, and the challenges still lie ahead.

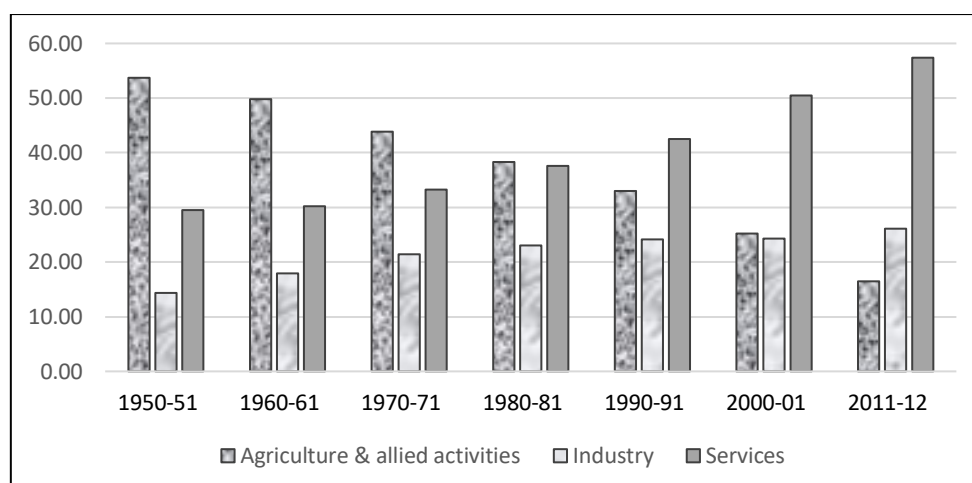
4.6.2 Structure of GDP:

Figure (4.5) shows the distribution of GVA by industrial origin at a constant price 2004-05 over the decades from 1950 to 2011-12. The Indian economy experienced a profound structural change since 1950. At the time of independence, the economy was primarily agricultural economy- exporting raw materials. In 1950, Agriculture's share of GDP was 53%, while the share of the secondary and tertiary sectors were 14.3% and 29% percent of GDP respectively in the same year. In the era of neoliberalism, agriculture share in GDP to 25% in 2000-01, and 16% in 2011.

During the planning phase, the land reforms introduced at independence's time, and the abolition of intermediaries, and the second-round land reforms (Ceiling Act 1972), resulted in significant progress; the concentration ratio has gone down during 1950-80 but marginally increased during 1980-03 (National Sample Survey of Land Holding, Report 491 & 492). Further, in 1966, the government successfully implemented new technology & High Yielding seeds, expanded credit and capital expenditure, in major irrigation. As a result, the share of net irrigated area has increased from 18% to 38%. The long term agriculture growth rate during 1950-91 did not increase by 2.9% only. A significant milestone, however, has India achieved food grain self-sufficiency by 1976.

Within four decades of planning, the share of primary sector-related activities has declined significantly. It came down to 49 percent in 1960-61; to 43.8% in 1970-71; to 38% in 1980-81; further to 33% in 1990-91. Although the 1991 reforms though were not directed at agriculture but were affected by a few measures (Ramakumar, 1991). The contribution of the agriculture sector to growth of GDP registered only 0.9% in the 1990s, and 0.7% in the 2000s.

Figure (4.5): IND. Sectoral shares in GVA at constant price-2004-05



Source: Author calculations based on RBI data, 2019

Basu & Miroshnik (2013) identified two major factors played havoc for the agriculture sector. First, reforms have rationalized most fertilizer subsidies, and others were fully removed (urea subsidy), and public investment in irrigation declined to reduce the fiscal deficit. Second, liberalization and FDI in seed manufacturing have contributed to the price decline in main agricultural products (a result of the former), and to increase in the prices of new hybrid seeds of several crops- such cotton, soya, maize- introduced by foreign MNCs and domestic private companies (a result of the later). Thus, agriculture is adversely affected by resource crunch and policy neglect, which, in turn, enlarged the unemployment ration in agricultural. On the other hand, the agricultural exports' share in world exports increased from 1.1% in 1990 to 1.9% in 1999 (Singh, 2011).

On the other hand, share of industry; mining and manufacturing, in GDP increased during the first three decades but has shown a slow change after 1991. Share of the secondary sector that was 14 percent of GDP in the year 1950-51 doubled to 25% in 1990. However, the industrial sector's share after one decade of reform did not change- it stood on 25% of GDP in 2000-01. Moreover, it took another decade to increase by 1.1% (26%) in 2011. The growth story of industrial sector has shown an accelerating trend over 1976-90 of 7.16% after a slow down of 3.6% over 1965-1976, while after reform, the industrial growth rate has lowered at 6.2% over 1991-00. However, it has been higher at 8% in the post-2000 period to 2011-12 (N Kumar, 2000). As a result, taking the manufacturing sector as a whole, the (compound annual) rate of growth between 1991-92 and 2010 (7.18%) is only marginally higher than that attained during the first three plan periods during 1960-90 (6.45%) (Chaudhuri, 2015).

Indian government set much focus over industrial reforms, the New Industrial Policy (NIP) announced on July 24, 1991, abolished industrial licensing system that regulated the industrial investments in the country, and opened new industries and services to the private sector (domestic and foreign) coupled with removing Monopolies and Restrictive. Although numbers, size, and ownership type evolved over the years after liberalization, yet no dramatic transformation in which firms still dominated by traditional private firms. R. Nagaraj (2006) and others, argued that India's development challenge is to promote the labor-intensive industry, not only capital and skill-intensive industry, for that it should improve the environment in which structural transformation can take place.

Economic reforms of liberalization were all aimed at raising the productivity levels of the manufacturing sector. However, there are several studies, and some having contradicting results, of TFP estimation: Ahluwalia (1989), Goldar (2004), Balakrishnan et al. (2004), Veeramani (2003), Boseworth and Collin (2003), Acharya (2003) Rodrik and Subramaniam (2004). Most of these studies found TFP for the 1980s higher than 1965-79 and the first decade of reform (1992-99).

Table (4.7): TFP by different studies

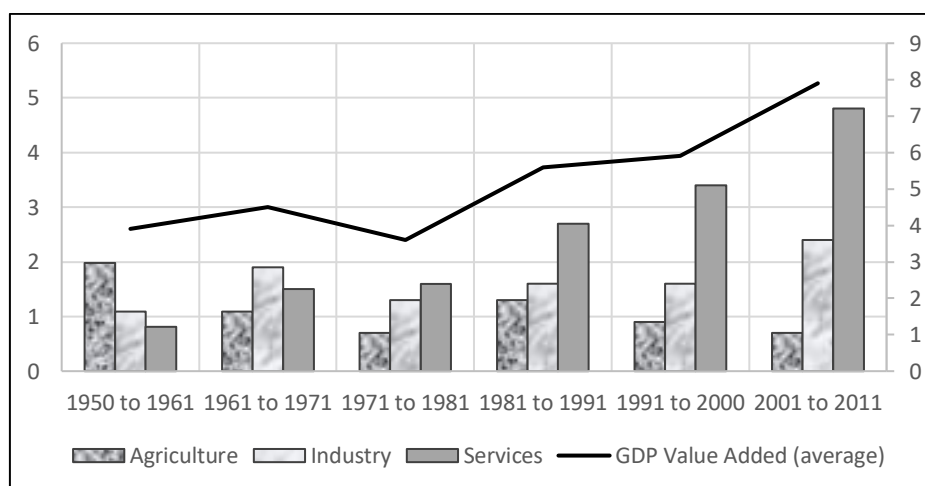
	1950-66	1967-80	1981-90	1991-00	2000-10
	Pre-Reform			Post-reform	
Acharya (2003). TFP (%of GDP due to TFP)	1.4 (38%)	0.7 (21%)	2 (38%)	2.6 (40%)	
V.Goldar (2005) TFPG	na	na	2.14	1.88	
Kaur and Kiran (2005)	na	na	1.53	0.44	
Boseworth Collin (2003)	0.7	-0.5	2.5	1.6	
Rodriks and Subramaniam	1.2	0.5	2.9	2.4	
	1975-94	1994-2004	2004-2011	1975-2011-12	
Agrawal. P (2015, P60)*	1.9	1.5	0.3	1.5	
	1960-73	1973-83	1983-93	1983-99	1999-04
Bosworth, Collins, and Virmani (2007)	0.2	0.6	1.7	2.8	2

Source: collated from Goldar (2005). * Organized manufacturing sector

Bosworth, Collins, and Virmani (2007) found evidence for strong acceleration in TFP growth during reform period. They also found that India's growth since 1980 was fueled by a rapid expansion of TFP in services. An interesting result found by (Agrawal. P, 2015, P60) - a

rate of TFP growth in organized manufacturing was higher during 1975-76 to 1993-94, while it fell in the following periods. He argued that at the aggregate level (organized and non-organized sector, the increase of TFP mostly took place in the unorganized sector'. On contrast, the percentage share of the tertiary sector in the GDP grew during the planning period of the 1950s, 60s, 70s, and 80s, by 44%-from 29% in 1950 to 42% in 1991. Yet, there was an overall rise after two decades of reform by 35% in this share (from 42% in 1991 to 57% in 2011). Thus, the Reform process brought in a structural change skewed to the service sector. The service sector has contributed to 50% of total GDP growth in 2000-01, and about 57% in 2011-12; thus, it can be concluded that 'reforms have contributed to growth by enabling private participation to respond to the opportunities arising in the form of a growing demand for producer services' (Balakrishnan, Das, & Parameswaran, 2014).

Figure (4.6): Sectoral contribution to GDP growth



Source: Author calculations based on RBI data, 2019

An examination of India's experience with service export done recently by (Barry & Gupta, 2012); the authors stated the importance of trade reforms and liberalization of the service sector for jump-starting of services exports, yet export of services cannot be taken for granted. It showed a slowdown during the financial crisis, and its growth highly volatile-vulnerable to fluctuations in global demand (Rakshit, 2009). It is worth noting that the total FDI flown in 2010 stands at \$232 bn compared to \$2 bn in 1990 in India. However, the main sectors that attracted FDI in India are electronic equipment, transport industry, service sector, telecommunications, drugs and pharma. FDI has contributed to the accumulation of foreign exchange reserves, but its role in creating employment is not very remarkable since much of it came into capital intensive sectors (see R Nagaraj (2003); Mondal and Pant (2015)).

In sum, the 'Reform process' was expected to bring in a new phase of rapid economic development in India. However, reform period has not failed after all, but it performed no miracle at the same time. At most, the growth momentum that had already picked up during 1980s had continued. The fact which not refutable is that entire growth miracle seems to have performed entirely by the service sector, while, both agricultural and manufactured sector has taken a beating as we saw above. Mukherji (2009) argued that India's growth relatively minimized the poverty and promoted the human condition; however, the middle and richer classes gained more than other sections. According to him, this is due to the fact that reforms in some sectors such as banks and telecommunications did not match by agricultural and human development. Further, Bardhan (2005) argued that 'reform could be popular if we equally-both sides- concerned about the governance structure in the delivery of basic social services for the poor'.

According to the National Commission on Employment (2007), 70% of the people earn less than Rs.20 a day /40 cents. Employment elasticities have plateaued, and there is growing joblessness. Again it is not that India has solved all its problem after achieving 7 and 9 rates of growth, Social sector development is far behind; the degree of inequality has risen; it still has a high share of people living in wretched poverty, it does not have food security, the employment situation is not improving.

To conclude, the state's role in the initial stages of development after Independence, perhaps, cannot be brushed aside. These were the times there were not much global capital inflows. Under foreign exchange constraints, the strategy to build a strong foundation for India's industrial base cannot be underemphasized. The agrarian constraint and a demand constraint were also eased with the state's actions. Even in the reform period, public investment has reduced but never totally absent. The reduction of the role of the state seems to have resulted in unequal growth. The FDI inflow could have eased India's foreign exchange constraint, however, the current account deficit defined India's limits to growth. We shall undertake some empirical analysis on the role of the state in the next chapters.

CHAPTER V

State & Economic Growth: pre and post-reform

Evidence from Syria

5.0 Introduction:

Planning was indispensable in 1973-74; however, the shift from centrally planned to a market-oriented economy seems indispensable now. Under the name of reforms, the neoliberal agenda as a non-negotiable package is recommended as recipe everywhere after a severe debt hit more than 150 countries, all are developing countries (developed countries underwent these a decade earlier) around the world (World Bank, 1990). The new dominant paradigm of economics declared the supremacy of markets over the state in development.

Theoretically, in the Keynes's view: the state will have to practice a substantial influence through its expenditure for the economic revival from the underemployment equilibrium- supporting the 'effectiveness of fiscal policy' (Patinkin, 1976). In contrast, the new classical school focused on the negative consequences of fiscal policy, deficit, and public expenditure, claiming that a stable full employment equilibrium can be achieved without active government intervention. Further, they argued that fiscal stimulation can also have a negative long-term impact through crowding out effect (fall in investment by business sector), which would affect the long-term economic growth and productivity (B. Friedman, 1978).

However, we saw in the previous chapters that the actual path of reform varies significantly between Syria and India; it stems from the initial conditions and political constraints. Yet, both countries have chosen to proceed with a gradual approach to reform. Keeping with the ideology of market reform, the state's role in the economy- measured by the size of the government spending- has retreated from economic activities in both economies. Accordingly, in the following two chapters (five and six), first, we look at the overall size of the government expenditure of pre- and post- reform periods in both countries (concerning economic reform through 'belt-tightening'/fiscal austerity measures, suggested by WC). Then, we will examine how far fiscal adjustment, size, and composition of spending have changed over time and to what extent these changes, following WC, were supportive of the economic growth and private investment.

This chapter will be devoted to the Syrian economy, while the next chapter focus on Indian economy.

5.1 Trend and Composition of Syria's Government Expenditure From 1970-2010; Changing Structure?

As a starting point of the impact of public expenditures on both economic growth and private sector within Syrian Economy, it is essential to study their major trends and composition. In this section, the trends and composition of expenditure at the central level for Syria over the past four decades (1970 to 2010) have been broadly analyzed. This analysis will provide a clear indication of the composition of public expenditure under the economic classification (Revenue and Capital).

5.1.1 Trends in Expenditure of the Syria's Government:

The total expenditure of Syria's government from 1970 until 2010 can be broadly grouped into four phases. Table (5.1) and figure (5.1) demonstrate the trends of Total, Revenue, and Capital expenditure share of GDP over the period (1970-2010) in Syria.

Table (5.1): Syria's government expenditure in different phases as a share of GDP

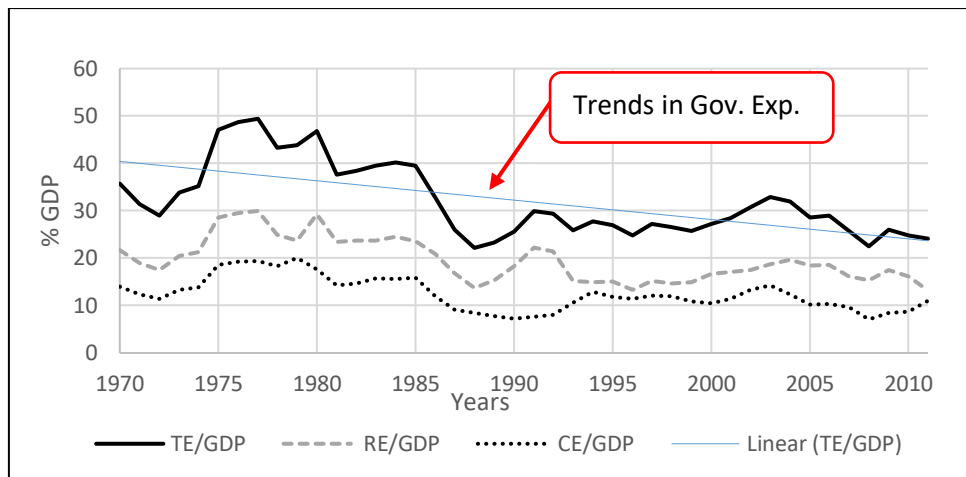
	phases	plan	period	RE	CE	TE
Pre - Reform	I	3	1970-75	21.4	13.9	35.4
		4	1976-80	27.5	18.9	46.4
		5	1981-85	23.8	15.3	39.1
	II	6	1986-90	17.0	8.9	26.0
	Post - Reform	III	7	1991-95	17.8	10.2
8			1996-00	15.0	11.4	26.3
IV		9	2001-05	18.2	12.3	30.5
		10	2005-10	16.8	8.8	25.6
Pre-reform	First half		1970-1990	22.4	14.3	36.7
Post-reform	Second half		1991-2010	16.9	10.7	27.6

Source: Syria's Central Bureau of Statistics, Various Issues.

TE: total expenditure; RE: revenue expenditure; CE: capital expenditure, all as a % share of GDP (budget figures)

Syria's government total expenditure showed faster growth and expansion during the early phases of the 1970s. From 1970 up to 1985 (covered third, fourth, and fifth five years plans), total public expenditure as a percentage of GDP stood for 40% on average for the entire fifteen years reflecting the large role of government during the early stages of development through planning strategy. The revenue expenditure has been the dominant component of about 24.2% compared to 16% for capital expenditure for the entire phase.

Figure (5.1): Syria: Trends in government expenditure % GDP



Source: Syria's Central Bureau of Statistics, Various Issues.

In general, Syria's government spending was increasing continuously until 1986, in both current and investment accounts, for the following reasons:

1. Implementing vast and different development programs at the early stages of the 1970s up to mid-1980s.
2. Free and semi-free of public services for citizens, especially in public health, education, and social welfare.
3. Increase subsidizing policy for energy and oil products, especially diesel, and some of the main food items such as bread, sugar and rice.
4. Implementing development infrastructure projects of roads, bridges, electricity, communications and others.
5. Increasing defense spending for national security.

The second phase -running through 1986 and up to 1990, witnessed shrinking in total government expenditure in terms of (% GDP), as a result of stabilization measures that had taken by the Syria's government in response to a debt crisis sparked in 1986. TE came down by more than 14% percent during this phase.

The cut in TE expenditure was on both levels, in which revenue and capital expenditure cut down equally by 7 percent, in which TE in the sixth FYP recorded 26% of GDP; 17% for revenue account compared to 8.9% for capital account. Hence, the second half of the 1980s was rightly considered the period which saw the beginning of 'reforms' with some policy changes, albeit on the limited scale. Nevertheless, it is after 1990, in phases III and IV, characterized by a steady level of total, current, and capital expenditures for the entire two decades.

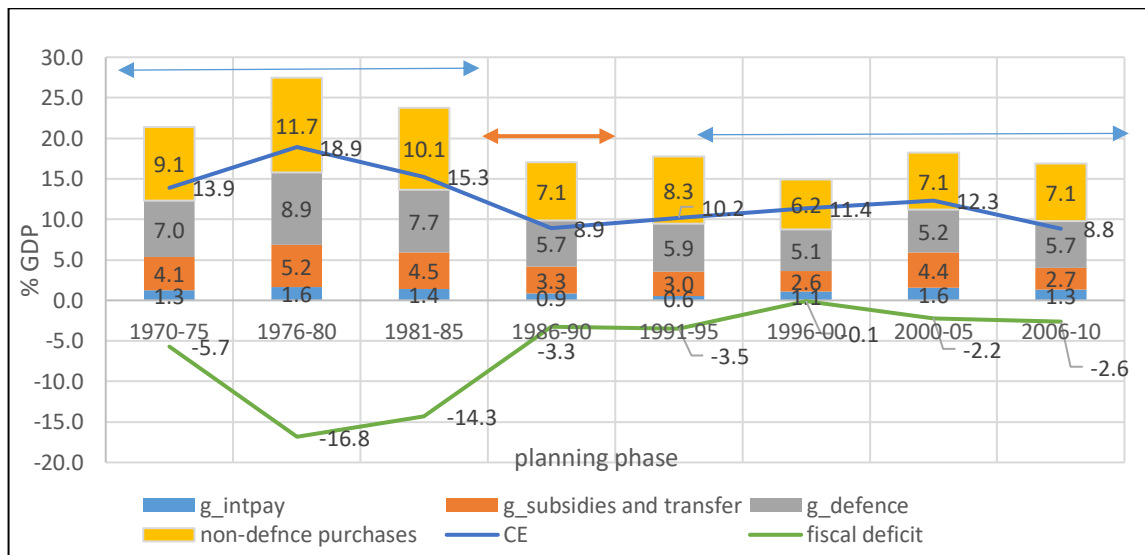
Therefore, the period of 1991-2010 can be called as a period of consolidation for Syrian government expenditure, in line with the reform philosophy. The two phases reflected the new orientations of the state in bringing about a qualitative leap forward that ensures the transition to a social market economy using indicative planning (in the 10th FYP).

The reduction is carried through both CE and RE by the same percentage (7%), keeping the same trends of pre-crisis. Hence, it is clear that the economic reforms have achieved the goal of expenditure reduction only in a quantitative sense with no change in its components.

5.1.2 Composition of Syria's Government Expenditure from 1970-2010:

Figure (5.2) exhibits shares of government expenditures of GDP at corresponding FYPs in Syria (bars), and capital expenditure (line). Analyzing the structure of current/revenue expenditures as a percentage of GDP in more details, we find the following:

Figure (5.2): Syria-Government Expenditure as a share of GDP-2000:100



Source: Syria's Central Bureau of Statistics, Various Issues.

1. Defense and national security expenditures among the most important features of Syrian state. It accounts for 8.9% of GDP and never falls from 5% all over the rest of the study period. This is quite understood since it is a matter of strategic issue due to the 'Arab-Israeli conflict'.
2. Non-defense purchases were higher in the 1970s than the 1980s, during the expenditure boom, they have been decreased in the subsequent decades, and maintained at the level of 7% in the 2000s.
3. Non-defense purchases consist of health and education services, salaries, and wages. Most of the health and education services are free and are not considered as support in

the modern development concept; rather, they are long-term investments in human capital, which is not less important.

4. Subsidies and transfer expenditure covers government obligations to pay subsidies and support to some public service, constitutes 5.81% of GDP as the first phase, and declined to 3.72 in the last phase after reform.
5. The interest of the public debt constitutes 0.5% of the GDP annually as an average figure, which is very low compared to neighboring countries. This is a positive indicator added to the pillars of the Syrian economy³⁶.

Thus, transfers and subsidies together with the defense expenditure fully account for the growth of government as a share of GDP in Syria, while net interest slightly decreased in the 1990s to 0.69 percent of GDP after exchange payment program with the Soviet Union. On the other hand, the capital expenditure account showed a lower level compared to other developing countries. Capital expenditure at a constant price of 2000, indicating 16% of GDP from 1970 to 1985. It registered the highest level in the history of Syria in 1979, with 20% of GDP. A decrease of 7.1 points in the second phase (recorded 8.9%) and remained virtually at the same level during the nineties and 2000s of 10%. At the aggregate level of total expenditure, capital expenditure (% of total) of Syrian government has remained at the same level for the overall period around 38.5% on average with a decline of 6% in the last phase correspond to the tenth plan compared to ninth plan in which government steps aside to give a more prominent role to the private investment. On the revenue side, share of RE as a percent of total expenditure also has remained at the same level for the overall period around 61 percent.

It is important to mention that government policy of cut in investment spending may be useful in the short term, not in the long term. Investment spending cut may have a consequence, in which the economic growth may decline in the long term, especially if the state could not direct the private sector toward the general goals of development. However, the reduction tendency of public investment is a part of the general trends of Syrian national economy after the adoption of the 'social market economy'.

³⁶The government debt, during the Soviet period of Poland, the Czech Republic, Russia, and the Slovak Republic, was restructured in late 2004 and early 2005. Bringing down the total Syrian external debt to \$ 6.5 billion, equivalent to about 25% of GDP in 2005, while total Public debt accounted for 39% of GDP. As a result, rescheduling led to a reduction in total external debt to the US \$ 2.6 billion, with a significant reduction of Syria's debt to Russia alone stood about 90%.

5.1.3 Economic Reform and Government Expenditure in Syria:

Syria's fiscal policy has been characterized by large reliance on a single and limited source of revenue which is the bulk-oil sector. As a result, Syrian economy is exposed to regular exogenous shocks of volatility of global oil prices. The global oil prices were shrinking since 1983 and with this, some form of fiscal reform in the budget in terms of rationalizing the expenditure, given the revenue was needed as part of the first phase of reform after 1986, and of the second phase of reform in 2000. The absence of Soviet Union compelled Syria to approach IMF and World Bank (for non-financial assistance) which have imposed the stabilization policy (SP) and structural adjustment program (SAP) - as a panacea to the crisis to most developing countries. However, the situation, to some extent, differ in the case of Syria.

In Syria, the focus of reform after the crisis was mainly on 'reduction' under the stabilization policies adopted (1986-1989), due to which it shrunk by 7 points for each category- it was the sole measure that had taken up at that time. Later, after a decade, the 2000s reforms agenda has been more comprehensive on PE as an integral part of fiscal reform, included-expenditure targeting, improving its efficiency and productivity. Fiscal reform aimed at making fundamental fiscal reforms to achieve a better balance between revenues and expenditure sides;

1. Adopting a new budget system under the supervision Ministry of Finance only;
2. Reconsidering the subsidies and transfer payments and channel them into specific sectors and categories;
3. Restructuring of the public debt fund;
4. Restructuring the tax and customs system;
5. Review the workforce in the state apparatus in order to improve wages and standard of living of public sector employees;
6. Cut off government spending.

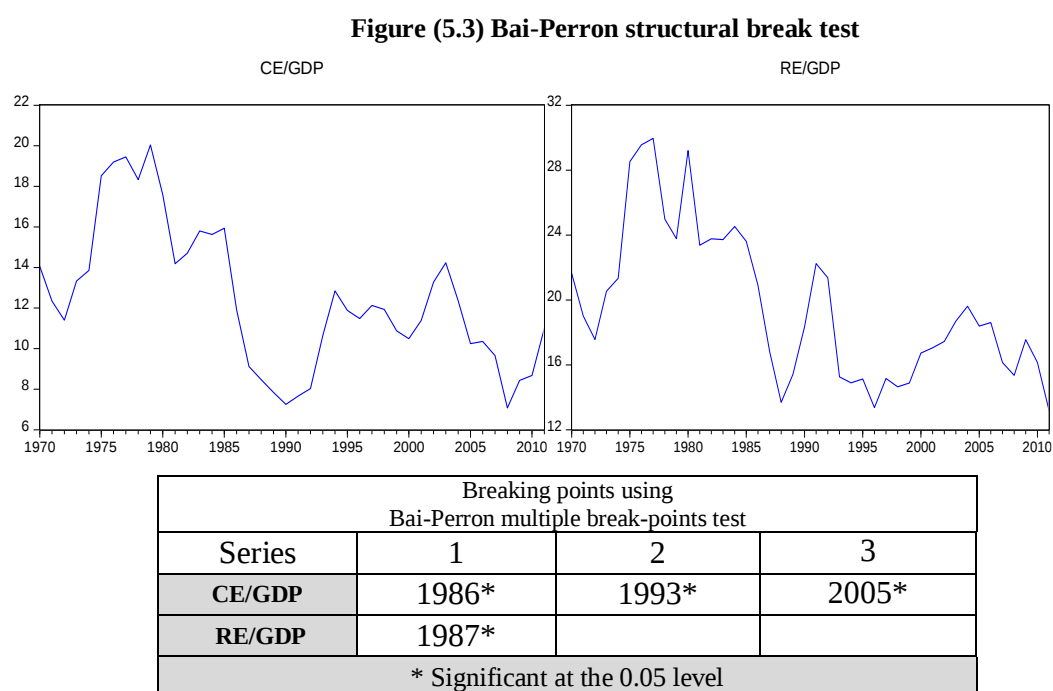
To show the policy shift in the revenue and expenditure shares, we conduct a test of a structural break, which we allude to the policy reform

Bai-Perron Structural Break Test:

The break(s) in total time-series data, mainly, with regard to the two phases; pre- and post-reform were identified using a structural break test called Bai & Perron (1998, 2003). The test approach is based on a central proposition of whether there is a breaking point(s) in a time series or more. Therefore, the study will apply this test to investigate whether exogenous shock,

which is ‘the debt crisis’ occurred in 1986, was capable of driving the changes in government expenditures on current and revenue accounts.

By calculating the natural logarithm of: (1) share of capital expenditure in GDP (CE/GDP), and (2) share of revenue expenditure in GDP (RE/GDP). We run the test to point out the breaking points in the time series data of each variable -by running a least square regression through regress each series on a constant.



Source: Researcher calculation based on E-views 9.

The first series, CE/GDP, witnessed three breaks, the first break corresponding to crisis year in 1986. The second break identified the growth of CE in 1993- the year exhibits a jump in CE in the real term by 40% compared to the previous year during the investment boom after 1991. Further, the capital expenditures witnessed another reduction in 2005. On the other hand, RE witnessed one breaking point in 1987, registering a reduction by 4 points compared to the previous year. Thus there is a systematic attempt to reduce government expenditure in general, and in particular, in the capitals expenditure, is at the bottom of the so-called reform.

The capital expenditure witnessed a reduction in 1986 before revenue expenditure. At the policy level, it is more challenging to cut revenue expenditure ‘committed expenditure’ compared to capital one. Thus, the second half of the 1980s is considered the beginning of expenditure reduction or (reforms), which means, at the policy level, the government outlined numerous actions for the next period, after the crisis, to the implementation of reform. However, from those actions implemented by the governments, our study obtains the primary

objective, whether there were changes in the course of the GDP and the private sector over the period 1987-2010. Whether the breaking points were significant in bringing the required changes, will find out next later in this chapter. We first take a look at the trend and performance of private and public capital and saving rate- pre and post 1987.

5.2 Performance of Public, Private Investment, and Saving During Pre and Post-Reform:

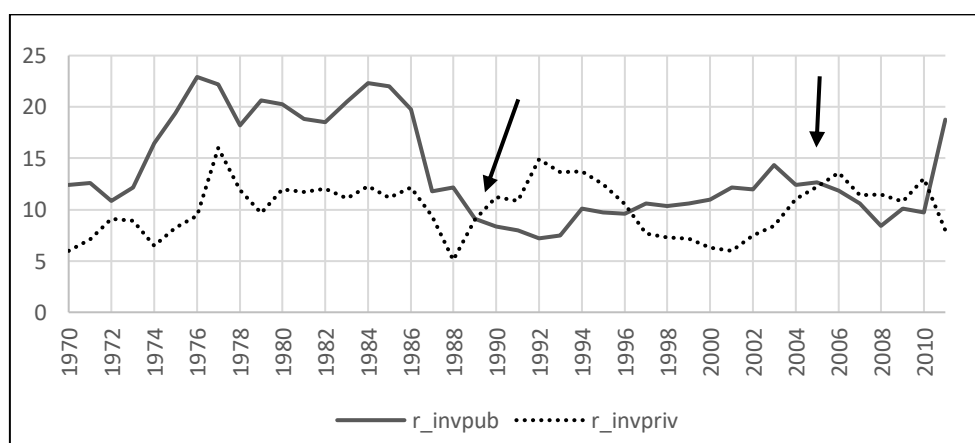
Will focus on two groups of measures: first is the growth rate of Syria's GDP, and Syria's private and public investments. Second is the percentage share of two types of investment to GDP. Further attention to the saving rate and ICOR has been done.

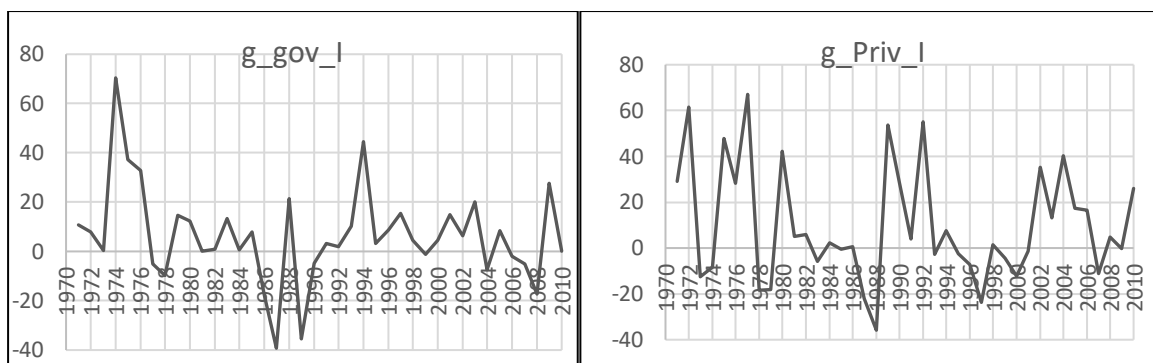
Table (5.2): Syria's government and private investment at different phases as a share of GDP

	phases	plan	period	G_GDP	Gov_I	Priv_I	GFCF	Gross-S
Pre - Reform	I	3	1970-75	13.26	13.97	7.6	21.59	16.17
		4	1976-80	7.16	20.84	11.8	32.63	18.56
		5	1981-85	2.92	20.44	11.6	32.09	10.88
	II	6	1986-90	0.37	12.21	9.4	21.59	8.63
Post -Reform	III	7	1991-95	8.21	8.49	13.1	21.59	12.45
		8	1996-00	3.75	10.42	7.8	18.20	14.20
	-IV	9	2001-05	5.07	12.72	9.0	21.76	19.69
		10	2006-10	5.07	10.14	12.1	22.2	11.56
Pre-reform	First half		1970-1990	5.93	16.73	10.0	26.72	13.68
Post-reform	Second half		1991-2010	5.52	10.44	10.5	20.94	14.48

Source: Syria's Central Bureau of Statistics, Various Issues.

Figure (5.4): Syria-Private and government Investment % GDP in Syria- 2000: 100





Source: Syrian National Bureau, based on National Account Statistics.

Note: g_gov_I, g_priv_I, point to the growth rates of GDP of Syria, government and private investment in Syria. Source: Syria's Central Bureau of Statistics.

According to Table (5.2) and figure (5.4) above, we are summarizing some features about the performances of our three main variables in pre and post-reform period in Syria as follows:

In the 1970s, with the "*Infitah*" policies, the state assumed a 'positive integration' between government and private sectors, in which some autonomy and freedom were awarded to the private sector³⁷. GDP growth, public and private investment exhibited high growth rates during the 1970s. GFCF share of GDP during this phase of 1970s-1985, stand for 21.59%, 32.63%, 32.9% corresponding to (3, 4, 5) FYPs respectively. The massive increase in the investment rate did not suffer much despite the low domestic savings rate in Syria. The most important factor in Syria's economic situation since 1973 has been the unprecedented magnitude of the external resources. Share of foreign-financed investment in 1967-85 was 55 percent compared to 25 percent in the preceding five years (Al Zaim, 1998). It is worth noting during this phase the behavior of private investment. Its accumulation strategy channeled to unproductive activities, a 'risk-free profitable sector' within small consumer industries and real estate sector (Ahsan, 1984)³⁸.

During the fifth FYP (1981-85), both sectors grew at a slower rate compared to the 1970s; by (1.37%) for private investment and (4.57%) for public investment. It was due to the negative impact of the eighties wars (in Syria and Lebanon) where GDP fell to a 2.92% growth rate only. However, following the crisis in the second half of the eighties, public and private

³⁷ Deregulation of commercial activities, expanding of a range of manufactured goods that allowed to private sector to invest in, removal of restrictions on import with a package of incentives to encourage export, and establishment of several free zones, etc. also took place (see chapter three).

³⁸ Indeed, the package of incentives did not succeed in attracting the upper segments of the private capital, which could contribute effectively to the development process (Al-Atrash, 1991). As a result, during the seventies, government's role had been intensified, state intervention increased, more regulations on private manufacturing firms, and merchants were imposed. State was heavily involved in the economy with more responsibilities of delivering social policies with the help of oil revenues and foreign aid.

investment changed inversely. Private investment grew faster, and its share of GDP had exceeded the public one (figure 5.4). Fiscal policies announced the end of the state's central role in determining production and consumption (Perthes, 1993, p. 59).

Later during 1990s, following the liberalization measures, as discussed in chapter III, (see figure 5.4), GFCF as a percentage of GDP, registered a 20% on average and 21.9% in the following decade of 2000s. This is compared to 29% in the first phase and 21% in the second phase by late 1980s. Thus, despite the importance of law No.10 in shaping and re-defining the economic development strategy in Syria from state-led to the private sector-led (as Patrick Seale writes: 'the law served as a landmark on the path towards capitalist development in Syria' (Seale, 1993, p. x), and despite the package of export & import incentives, deregulation of licensing, and credit bank allocations provided to private capital (Sukkar, 2000), there were not enough changes within the structure of the investment. The private sector could not push the overall investment rate to the rate of that registered by public sector during 1975-85 of 32%. The private sector manifested resistance to invest (see that saving rate was 14% in the 1990s, higher than the previous decade of 10%; in addition, the public sector already step back after 1991). As a result, private sector performance has been marginal and it was unable to fill the gap after the public investment retreated. Further, the private sector (the new commercial and state bourgeoisie) channeled its excess saving to the transport sector which registered the highest percentage of (60%) of all licensed projects under the Law.no.10 in small projects, while industrial sector share was only of (38%), and (10%) for the agriculture sector (Annual investment report, 2007). Thus, the industrial sector was not stimulated despite all measures that taken, since the incentives were equal for all economic sectors, in which allowed to the private sector to exploit these exemptions and perform commercial and short-run investment.

After 2000, as the private sector was given the helm of the economy and state's role was withdrawn, share of the private sector of national income went up to about 60% during the ninth plan (Al Zaim, 2005), and its share in total investment equal the share of the public sector investment. During the ten years of 2001-2010, private investment (15%) grew faster than GDP (5.07%), while public investment (4.5%) increased slowly. The liberalization process in 2004-05 had contributed to a 'historic' revival of private sector in Syrian standards, following the LD No.8 by 2007³⁹. Investment project contracts were around US\$9.2 billion (26 % of GDP)

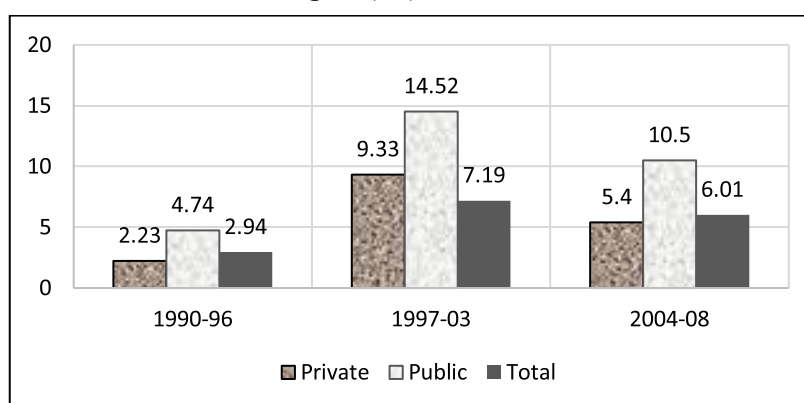
³⁹ The law reinstated more private ownership – the ownership of land – and thereby served the private interests of the ruling elites and their allied new commercial bourgeoisie (Matar, 2016).

in 2007 divided between industrial, tourism, and real estate projects. FDI approvals were estimated to be around 20% of total private investment (IMF, 2006).

Again, the state could not manage and meet the limitations and restrictions inherited in laws, especially in the industrial sector. The market liberalization had benefited a specific group at the cost of other groups in Syrian society. As the law (LD No. 8 of 2007) permitted investors (local and foreign) possessed the land, Gulf foreign direct investment directed into real estate, and to the banking sector (private banks captured 70 percent of the increase in private sector deposits and contributed 45 percent of the growth in loans to the private sector). The new LD is an amended form of previous law which encouraged investment in real estate (Al-Zaim, 2007).

It is worth noting that the investment efficiency, measured by the reverse of the incremental capital-output (ICOR) ratio, registered low level in both private and public sector during the 1990s. This suggested that private investment indeed was inefficient and unable to perform a leading role after 1991. In contrast, the efficiency of the private and public sectors increased after 2003, along with a drop in oil production and oil export, suggesting that both private and public investment were driving the GDP growth after 2003.

Figure (5.5). SYR-ICOR



Source: Planning Commission Report, 2009

In sum, the behavior of Syria's government expenditure, revenue and capital components showed quite a few disturbing trends during the period of post-reform. The most prominent aspect was the consistent decline in public fixed capital formation in terms of GDP%, in the period of post-reform, which could affect GDP growth negatively in the medium and long run. It contributed to the arrest of budgetary deficit figures and the achievement of fiscal discipline.

Contrary to the capital accumulation strategy which continued to be controlled mainly by the state in the 60s and 70s and first half of the 80s, the process of capital accumulation after reform (after 1990), private-led strategy and liberalization were unsuccessful to guide development. The private sector had been shifted into a path of profit accumulation rather than a long-term strategy of capital accumulation in the industrial sector, which is required to restructure the economy's productive capacity and create new employment opportunities. All reform measures were inefficient measures to push private investment into productive sectors; it lifted the power of ruling class (minorities) and consolidated their wealth. The fresh investment representatives exploited these measures, (which designed by them to some extent), toward guarantee further private ownership and perform fragile, commercial- investment patterns with quick returns. This gave the rise to what can be called the capital accumulation crisis in Syria after reform. However, whether this shift in development strategy in Syria from state-led to private sector-led has contributed significantly to the GDP growth will be tested next.

5.3 Impact of Government's Investment on Economic Growth in the Pre and Post-Reform Period in Syria:

Growth and development accounts always considered the capital accumulation the main driver for growth. The core part of the analytical framework of Keynesian economics is that rate of investment spending is determining capital accumulation, and raising investment rate is a key factor for long-run growth of Harrod-Domar model. Further, in the World Bank gap model for funding, Structural Adjustment Programs asserts higher investment to ensure long-term growth, implying the fact of the importance of growth of demand.

Solow (1956) showed that capital accumulation, as a supply phenomenon is driven by saving, affects growth only during the transition to the steady-state while the rate of population growth and technical change are exogenously determined the long-run growth. Later, the endogenous model included human capital which is endogenously determined as the main force to increase returns to scale. Although the difference between the two growth models is distinctive, yet in both, the aggregate demand influences are absent. While capital accumulation being governed through saving decisions rather than investment spending, in the latter, the demand side is completely out of the picture as the growth is driven by endogenous technological progress.

Two questions arise here; first, without effective demand, how can we find the real meaning of actual growth? Second, what does 'warranted' growth mean in real terms? When

GDP growth has largely been demand-constrained in history, is it possible to talk of growth, whether endogenous or exogenous, abandon the demand-side effects?

Moreover, standard economic growth models have been always ‘supply-driven’ during 1960s and 1970s within the framework of Neoclassical model which links the output rate to different input factors; labor force, human resources, technical progress, capital formation, with no distinction between the private and public components of investment. Thus, designing a policy to promote private investment and downgrade public investment, without empirical evidence, would not necessarily help (M. S. Khan & Reinhart, 1990). On the other hand, countries differ relatively based on their size, population, and skilled labor force, political system, and state’s role in development and macroeconomic stability, etc. Thus, cross-sectional data analysis and incidence cannot be taken as representing anyone developing economies.

According to the above set-up, this section provides a practical analysis of the long-run relationship as well as short-run dynamics between public and private investment, and GDP with particular reference to Syria. Building on the work of Arrow and Kurz (1970); Aschauer (1989); Munnell (1990, 1991, 1992); M. S. Khan & Reinhart (1990); Baxter and King (1993) and Mallick (2002); we formulate our growth model where a distinction between two types of capital (private and public) in their economic effects is computed (over the period of 1970 to 2010) using multivariate co-integration model. The aim is to use Johansen's (1998) co-integration technique to find the long-run linear relationships entering the growth equilibrium of Syrian economy.

Further, utilizing the 1991 policy shift as a breakpoint, we examine the direct interaction between gross public and private capital with an intention to address any possibility of crowding -out effect in Syria over the two periods of pre- and post-reforms.

To specify the main objective of this chapter, we set some research questions as follows.

- Does Public and private capital stock have a different impact on economic growth? And do these impacts have changed in the post-reform period and Syria?
- Does public investment has a complementary role to the private investment in the pre and post-reform period in Syria?

The following section presents the model specifications and methodological issues. The second section subscribes data properties of Syria and estimation results, third part for the conclusion.

5.3.1 Growth Accounting for Syria:

Most models of growth accounting in the general neoclassical framework is given by of Solow model (1956). While this model does not take demand into consideration, follows consumption as a function of wealth or interest, the model only considers labor, investment, and productivity. The growth is decomposed into these three to see the relative contribution. Here we use a modified version, in which the investment is further divided into public and private investments. As a starting point, the framework points an aggregate production function relating the output (Y) to the factor inputs; labor L, capital K, variable A is indicating to total factor productivity⁴⁰, and V is a vector, including other relevant variables that may researcher including them into the production function in a modified form.

$$Y = A \cdot F(L, K, V)$$

Following Aschauer (1989), Barro (1990), World Bank (1990), the possibility of differential impacts of private and government capital stocks on economic growth is considered. With a technical progress A to grow at a (constant) exogenous rate as in Solow work (1957), making use of marginal productivity conditions in order to allow differentiate shifts of movement along with the production function, we get:

$$Y_t = A_t \cdot F_t(L, K_p, K_g) = A \cdot L^\alpha K_p^\beta K_g^\gamma$$

L is employment; K_g is public capital; K_p is private capital. (Human capital is assumed to be included in the TFP measure A). The parameters α , β , and γ denote the elasticities of output with respect to the inputs; labor, private, and capital stock. The marginal product of labor is $\alpha Y/L$, marginal product of private capital is $\beta Y/K_p$; the marginal product of public capital is $\gamma Y/K_g$. Specified in a Cobb-Douglas production function form, the sum of $\alpha + \beta + \gamma = 1$ thus, $\beta + \gamma = 1 - \alpha$ meaning that the output earmark for labor, private capital, and public capital factors in which K_g just serve as independent production factors such as labor and private capital. Like private capital, public capital displays a negative marginal product. In the case of public capital being productive and complementary to the private one, as such, a decline in the ratio of this input is problematic.

⁴⁰ A is a neutral disembodied technical change as in Hicks' definition. Thus, Hicks-neutral technical change leaves the slope of isoquants along a ray through the origin unchanged (Waltz, 1978).

Differentiating the production function with respect to time and denoting the derivatives by putting a dot over the variables, hence $dY/dt \equiv \dot{Y}$, $\frac{\partial F}{\partial L}$ is the change in Y given a change in labor, $\frac{\partial F}{\partial K}$ is the change in Y given a change in capital. In a growth term, we obtain:

$$\dot{Y} = \dot{A}F(L_t, K_{pt}, K_{gt}) + A \frac{\partial F}{\partial L} \dot{L} + A \frac{\partial F}{\partial K_p} \dot{K}_p + A \frac{\partial F}{\partial K_g} \dot{K}_g$$

$$\dot{Y} = \dot{A}F(L_t, K_{pt}, K_{gt}) + (\alpha AL^{\alpha-1} K_p^\beta K_g^\gamma) \dot{L} + (\beta AL^\alpha K_p^{\beta-1} K_g^\gamma) \dot{K}_p + (\gamma AL^\alpha K_p^\beta K_g^{\gamma-1}) \dot{K}_g$$

Dividing by Y: $\dot{Y}/Y$, we get:

$$\frac{\dot{Y}}{Y} = \frac{\dot{A}}{A} + \alpha \left(\frac{\dot{L}}{L} \right) + \beta \left(\frac{\dot{K}_p}{K_p} \right) + \gamma \left(\frac{\dot{K}_g}{K_g} \right)$$

Now we assume A is constant and under the condition of perfect competition; factors are paid their marginal products, we get:

$$\dot{Y} = \check{a} + \alpha * L + \beta * K_p + \gamma * K_g$$

Where the constant term ($\check{a}$) is assumed to capture the growth in productivity, α is the marginal productivity of labor MPK_L , β capture the marginal productivity of private capital MPK_p , and MPK_g is the marginal productivity of public capital captured by γ . Until $MPL = MPK_p = MPK_g$, continuing adjustments to L, K_p , K_g will occur to reach equilibrium.

In the growth analysis, many studies depended on the two-factor model involving the capital as a whole (combined of private and public), and labor. Thus one would set $\check{a} = 0$ and $\alpha + (\beta + \gamma) = 1$. Other studies have used an even simpler form of equation (2) in which $\check{a} = \gamma = 0$, or used a single investment variable with GDP to obtain the ICOR (Chenery & Strout, 1966). Under the assumption of constant population growth, and thus share of wages is fixed, we assume $\alpha = 0$ thus, we can directly analyze the interaction between the two types of capital stock, and their differential effects on output. The output equation can be set as:

Model one: $\ln Y = \check{a} + \beta \cdot \ln K_p + \gamma \cdot \ln K_g + \mu_t$ (1)
--

If the effects on the growth of private and public capital are the same, this will imply that the respective marginal productivities are equal, $\beta = \gamma$. On the other hand, if $\beta > \gamma$ private capital is more efficient and productive, as argued by the proponents of market-based reform. The limitation of this approach, as one to concede, is the assumption of full capacity utilization, which may produce a larger random error.

5.3.2 Empirical Estimation of Growth Model -1; Total Period - Syria:

In order to estimate the equation (1) directly, specific assumptions and methods have been made, in which the data sample running through 1970-2010 for Syria.

Capital stock: In our study, the capital stock series has been obtained using the Perpetual Inventory Method by taking the initial capital stock K_0 in year 1970 for Syria. The fixed capital for 1970 is adjusted for price changes by using GDP deflator in 2000 –providing the benchmark capital stock (K_0). Thus, Capital stock following the identity:

$$K_{t+1} = (1 - \delta)K_t + I_t$$

Where K_t is the total capital stock at time t , I_t is the investment at time t , δ is the depreciation rate. The time-series data for the investment at a constant price is available at total level (private and capital) and in nominal terms for each. Thus, for the estimation of private and public capital stock at a constant price, we used this formula:

$$R_{CAP00} = R_{CAP(-1)} * (1 - \delta) + N_{GCF} / P_{GDP00} * 100$$

R_{CAP00} is Real Capital stock (for private or public).

$R_{CAP(-1)}$ is Real Capital stock (for private or public) in the previous year.

N_{GCF} is Nominal gross capital formation (for private or public).

P_{GDP00} is the price of GDP (GDP Deflator, 2000=100): $P_{GDP00} = N_{GDP} / R_{GDP} * 100$

Depreciation Rates δ : The choice of depreciation rates present a challenge in the construction of capital stock estimates in any country since the country-specific estimate of depreciation rates is typically not available. For Syria, the depreciation rate has been calculated using different types of capital, such as machines and equipment, non-residential buildings, and residential buildings. Previous studies by Hofman (2000) and Nasser (2004), have estimated the average age of machines and equipment 15 years, non-residential buildings are 40 years, and residential buildings for 50 years. Hence, the weighted deprecation rate has been used is (6.225%) for the period 1965-2004. A more recent study done in 2009 by Syria Planning Commission (SPC) reported a depreciation rate of 7%⁴¹. In our model, we use the rate of 7% to construct a net fixed capital stock series for Syria.

Data Specifications: Before turning to the actual estimation, some issues regarding the data properties have to be clarified. Most of the macro-economic time series generally follow a stochastic trend. In most cases, they are non-stationary and integrated of order one; thus, there

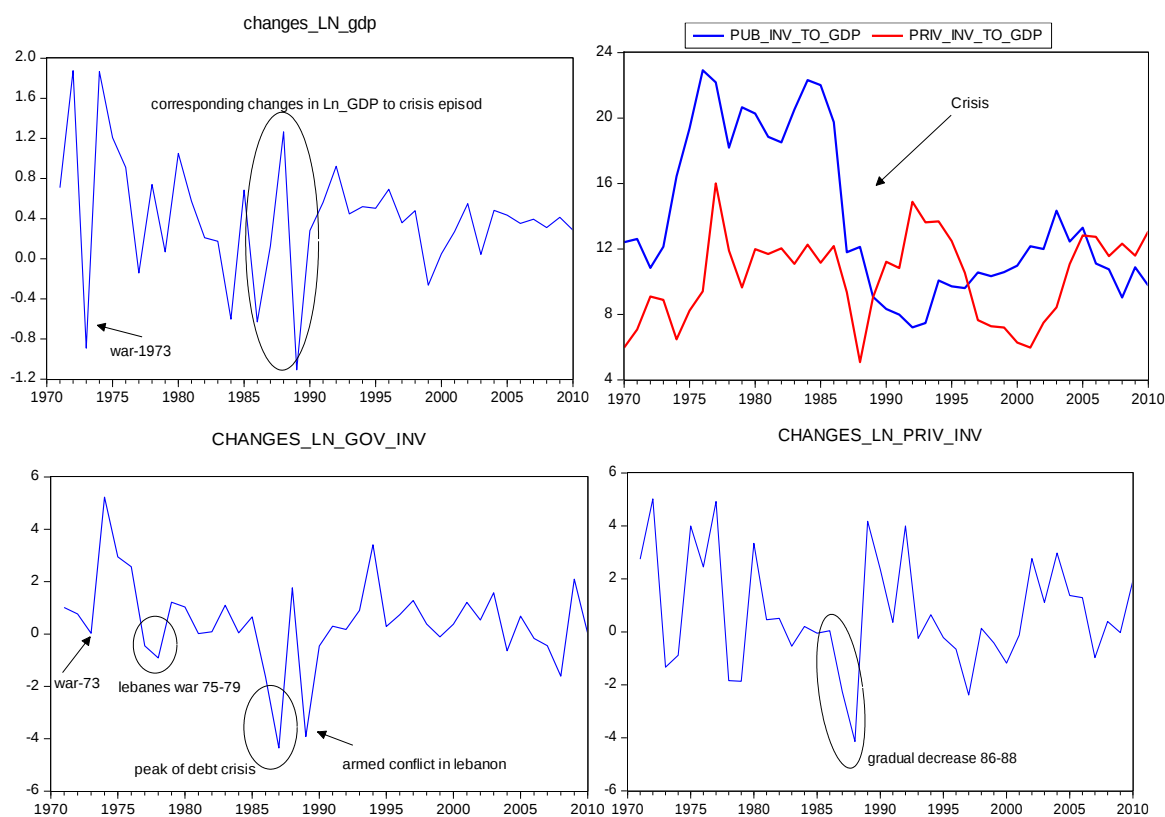
⁴¹ The study has been done according to an agreement between Syria Planning Commission (SPC) and the German Technical Assistance (gtz) under the Project Program: Support to the Syrian Economic Reform 2008.

is a possibility of a long-run relationship to be exist. However, some other issues related to the Syrian data properties are identified first.

(A) High-frequency properties: Using dummies for the large changes

Structural breaks are quite common in the time series data of Syrian economy; thus, we estimated our models based on the statistical specification of the chosen variables. Figure (5.6) shows the ratio of government and private investment to GDP and their changes in the logarithm term over the sample period from 1970 to 2010. It is clear that government investment series proves a few large yearly changes, well above two times standard deviations. The private investment also shows a more volatile trend due to the nature and specifications of Syrian economy; the economy hit by different shocks-external and internal wars. When shocks are more tense, there is a higher probability that private agents are not able to face these adverse shocks, and as a result, became more reluctant to invest and highly capricious. Private investment in Syria proved to be very high in boom periods and low in the period of depression. Thus, public investment has to ramp up to lift the growth and for cyclical adjustments to achieve fiscal goals.

Figure (5.6) Syrian data -main specifications



Source: Author's compilation after application of the E-Views 10 software, 2019.

Table (5.3): Syria- Large changes in Spending

sd ($\Delta \ln_Priv_Inv$)		sd ($\Delta \ln_Gov_Inv$)	
2.126		1.674	
$\Delta \ln_Priv_Inv > 2\ sd$		$\Delta \ln_Gov_Inv > 2sd$	
1988	-4.14	1974	+5.22
1989	+4.17	1987	-4.35
1992	+3.99	1989	-3.91
$\Delta \ln_Priv_Inv < 1\ sd$		$\Delta \ln_Gov_Inv < 1sd$	
1973	0.01	1973	0.02
1987	-2.25	1986	-1.68
1984	0.09	1984	0.04

Source: Author's compilation after application of the E-Views 10 software, 2019.

On the public investment side, in 1973: at the onset of the October War in Syria, public investment decreased by 14%. In addition, during the 1980s, Syria had faced a 'long campaign of terror' within its territory, exacerbated in 1984, along with another external war in Lebanon (1980-84). The series exhibits a decisive peak in 1974 of more than two times standard deviation (an increase of 35 percent during the investment boom followed October war, 1973). The year of 1989 stands out for another armed conflict (within Lebanese territory), witnessed a further reduction in investment expenditure in favor of consumption.

The benchmark break in the sample happens in 1987-89, the years of the debt crisis. Thus, it is difficult to think in these years (1987-89) as being generated by the same stochastic process as the pre-87 of the data. Yet, the policy-shift (reform) declared in 1991, the year which considered a juncture of Syrian economy. Accordingly, for the first model, we induce our linear regression with two war-dummies variable corresponding to critical years of Syrian economy-dummy-1973, 84.

(B) Unit Root & Co-Integration Test:

Testing for unit roots or non-stationarity of a time series data is an essential step before running any regression analysis. This step will allow us to avoid misspecification of the test (what is called 'spurious regressions'). This study used two tests for stationarity: (1) Augmented Dickey-Fuller (ADF); and (2) Phillips-Perron test (PP) unit root test, using the E-Views 10.0 default procedure. Before doing so, we plot the raw time series data for Syria in real term (2000 base year) in order to examine each series individually. Table (5.4) describe the data density function (normality), and the integration results.

Table (5.4): Results of the stationary tests

Variables	Name	Type	Logarithmic Level Data		First Log-Difference		Decision
			ADF	PP	ADF	PP	
Real GDP at market prices, 2000:100	GDP_SYR	Indog	0.4560	0.3782	0.00*	0.00*	I(1)
Real Net Capital Stock_ government sector	NCF_GOV_SYR	Indog	0.1186	0.093	0.00*	0.00*	I(1)
Real Net Capital Stock _ private sector	NCF_PRIV_SYR	Indog	0.1813	0.131	0.00*	0.00*	I(1)
Real investment (Δk) government	GOV_INV_SYR	Indog	0.2155	0.2099	0.00*	0.00*	I(1)
Real investment (Δk) private	PRIV_INV_SYR	Indog	0.3030	0.3030	0.00*	0.00*	I(1)
Share of export Syria to GDP	EX/GDP_SYR	Indog	0.5472	0.5507	0.00*	0.00*	I(1)
Index of the real euro exchange rate (2000= 100)	SYR_P_EUR	Exog	Exogenous variable				

Source: Author's compilation after application of the E-Views 10 software, 2019.

* denotes a significance at 1%. The ADF and PP test critical values are consistent, thus the null hypothesis of non-stationary at a level cannot be rejected.

According to the integration results given in (table: 5.4), all variables are integrated of order one I(1). Thus, by regressing non-stationary variables to each other's, the 'spurious regression' will arise, leading to unsound results of estimation. Accordingly, we try to avoid differentiating the data at the level, and test for co-integration instead. Most of the macro-economic time series show a trend in the data or have an increasing variance. Such characteristics make the *error-correction framework* more appropriate.

Co-integration Analysis:

Co-integration is a pure econometric technique usually applied to non-stationary variables to obtain the correlation between them (in case it exists), which developed by Johansen and Juselius (1988, 1990). If time-series data are co-integrated, there will an adjustment mechanism that brings them back into convergence in case there is a drift away from the equilibrium. Thus, the question arises whether there is a stable and co-integrated association amongst the variables. Having shown the variables are integrated of order one I(1), we apply multivariate co-integration tests between the variables that included in each model in order to identify the possibility of an existed long-run relation between the variables of interest. However, before running any co-integration analysis, two steps are required: (1) identifying the optimal lag, and (2) testing for the numbers of co-integration vectors using ML method [see

appendix (1)]. In practice, the analysis of the relationship between two or more co-integrated I(1) time series can be performed in an error correction framework. This approach is a re-parametrization of an autoregressive distributed-lag equation that explicitly takes into account the long-run equilibrium relation as well as the short-term dynamics of the series. An error correction model (ECM) for Y_t can be written as:

$$\Delta Y_t = B_0 + \underbrace{\sum_{i=1}^p B_i \cdot \Delta(Y_{t-i}) + \sum_{j=1}^q B_j \cdot \Delta(X_{t-j})}_{\text{Short-term dynamics}} + \underbrace{\theta Z_{t-1}}_{\text{error correction term}} + \varepsilon$$

The test of Co-integration sets the dynamic relations between two or more variables, and (VECM) is applied to quantify the dynamical changes of the variables at the first difference, in which the coefficient of ECT: (Z_{t-1}) , θ , considered the adjustment speed. Thus, ECM interrelates the deviation from the long-run equilibrium of previous period (called an error) to the dependent variable Y short-run dynamics.

5.3.3 Model-1 Results: Growth Model (1970-2010)

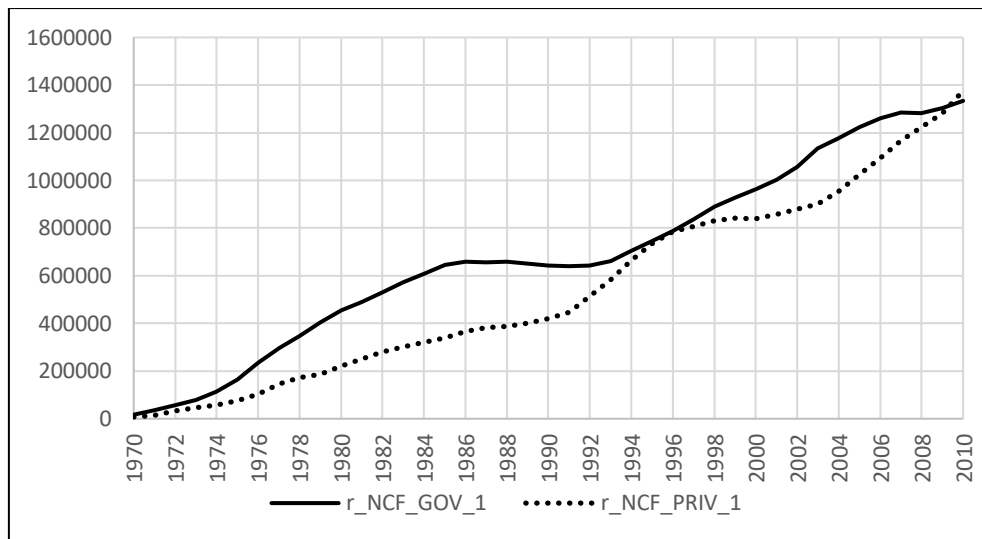
The first model of growth for entire period (1970-2010) includes:

Model (1): Growth Models- SYR

Model	label	variable description
Model -1	GDP_SYR	Real GDP at market prices, 2000:100
	NCF_GOV_SYR	Real Net Capital Stock _government sector
	NCF_PRIV_SYR	Real Net Capital Stock _ private sector
	Dummy-73	War dummy of 1973 (-10% GDP growth)
	Dummy-84	War dummy of 1984 (-7.61% GDP growth)

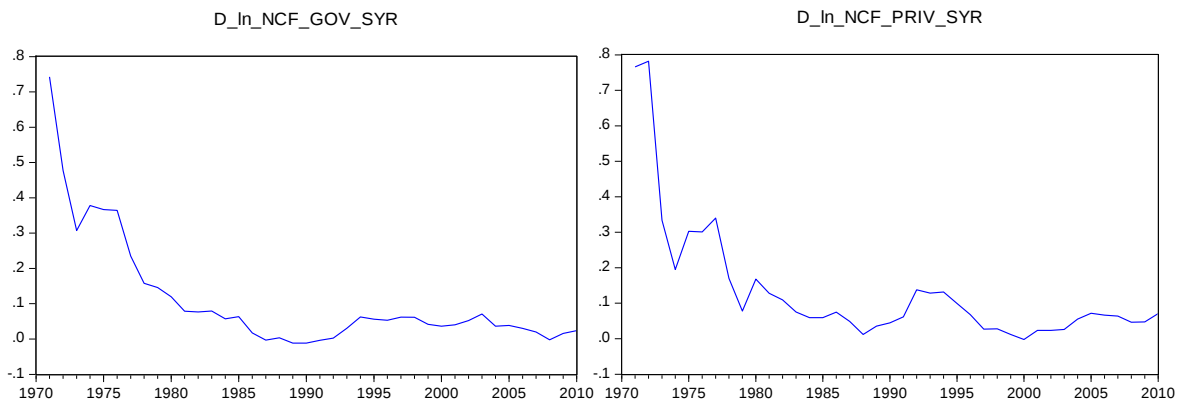
In the growth model of Syria (Model one: equation 1), we have chosen lag 3 as the optimal lag for VAR model, and thus, we run VECM at lag 2 [see appendix 1, table (1)]. Further, as the main interest of this model is to track the long-run relation between our three variable in the first model, we run Johansen method for co-integration, as a second step of the VECM analysis. The Trace and Max-Eigen value statistics proved that the assumption of an existing one co-integrating vector cannot be rejected [see appendix 1, table (2)]. Hence, there is at least one long-term relationship between our three variables; output, private capital stock, and capital stock equation.

Figure (5.7) Net Capital Stock-Syria; private & public (at level)



Source: Authors' calculation based on Syria's Central Bureau of Statistics, Various Issues.

Figure (5.8) First difference of the variables (private and public capital)



Source: Author's compilation after application of the E-Views 10 software, 2019.

Long-run co-integration equation

The co-integrating equation at the long-run (normalized on log GDP-SYR) is described here (table 5.5). The results reveal that the long-run estimate for real private capital formation and real public capital formation (in a logarithmic form) are positive and highly significant.

Table (5.5) Long-run equation: Normalized Co-integration Coefficients:

variables	Ln_GDP_SYR	Ln_NCF_PRIV_SYR	Ln_NCF_GOV_SYR
Co-integration coefficients	1.000	0.524295	0.608150
[t-ratio]		[-4.40893]	[-3.02035]
(Standard error)		(0.11892)	(0.20135)

Source: Author's compilation after application of the E-Views 10 software, 2019.

Ceteris paribus, an increase in real capital stock for both private and public, affects GDP significantly in Syria. The t-ratios are significant at 1 percent level for all included variables. A one percent increase in public capital stock increase the GDP by 0.60 percent, a one percent increase in private capital increase GDP by 0.52 percent. Thus, in the long run, it comes into view that Syrian private capital stock has a lesser impact than the public capital stock on GDP in Syria. *Through the analysis conducted above, we draw our main conclusion of the existence of a long-run relationship between the GDP of Syria, public capital and private capital of Syria, which is statistically significant. Public stock contributes to economic growth greater than private stock.*

The existence of one long run co-integrating equation and that residual (EC terms) are obtained from it, thus we can look into the short-run adjustment and short-run coefficients.

Short-Run Error Correction Model

As we mentioned before, the coefficient of EC; θ is the speed of adjustment back to the long-run equilibrium between variables, while changes in the included variables in the equation stand for short-run elasticities. In our first model, in the short run, the percentage change in GDP of Syria stand for ‘dependent’ variable, and EC estimation results are described here expressed in the form of logarithmic differences:

$$Dln_GDP = \alpha + \beta.Dln_NCF_PRIV + \gamma.Dln_NCF_GOV + \theta ECT_{t-1} + \mu_t$$

Table (5.6): EC model-1 estimate

		<i>Dln_GDP_SYR</i>	p-value
c		-0.079	(0.10)
<i>Dln_GDP_SYR</i> (-1)		-0.35	(0.055)
<i>Dln_NCF_PRIV</i> (-2)	β	+0.42*	(0.016)
<i>Dln_NCF_GOV</i> (-1)	γ	+1.43*	(0.013)
<i>ECT</i>_{t-1}	θ	-0.092303**	(0.030)
Dummy_1973		-0.32 *	(0.016)
Dummy_1984		-0.14 *	(0.022)
R-squared		0.52	
Adj. R-squared		0.37	
F-statistic		3.425	(0.000)
Durbin-Watson stat		1.946461	
Number of coefficients		33	

Source: Author’s compilation after application of the E-Views 10 software, 2019.

*significance at 1% level, **significance at 5% level.

Both public and private investments make a contribution to Syrian economic growth in the short run. The short-run estimate for net capital for public sector of Syria (NCF-GOV), in real term, provides that an increase of 1% in NCF-GOV in the course of the first year, give a rise in GDP by 1.43% in the second year, which is statistically significant. While the estimate for private capital in Syria in real term, suggests that an increase of 1% in private capital in the course of the first year, give a rise in GDP by 0.42% *after two years* (one year lag was not significant), which is also statistically significant. This supports the Keynesian view of private investment will be stimulated by GDP, which induced by public investment (this result is confirmed when we introduce the GDP in the private sector equation as well). Seeing that the calculated value of the public capital effect is significant in the following year while for the private investment becomes significant after two years, that is, *the public investment appears to have a bigger role and to be more important in the growth accounting in Syria compared to the private sector in the short run.*

For the EC, as the theory predicts, all variables are correctly signed and significant, giving that a deviation from the long-run GDP by 10 percent in the course of first year is corrected in the second year only by 9 percent. Both variables are approximately equal for the correction (11% for government and 10% for private). The small value of error correction reflects the fact of policy shift after 1991. Moreover, the war dummy variables for the two years of 1973, 1984 are highly significant, yet negative, giving us another evidence that the political situation has had a real harm effect on Syrian economy.

Finally, EC model is well specified, as none of the diagnostic tests failed [see appendix one, table (3)]; however, adjusted R-squared is not high enough, but the p-value for the F-stat suggests that the EC model as a whole is statistically significant at the 1 percent level. The Durbin Watson statistics are close to 2, which suggests that there is no first-order autocorrelation in the model. Thus, the equation (1) is efficient and reliable for the entire period, therefore, we can summarize this analysis by saying that private investment in Syria appears to play a lesser significant role in economic growth than public investment. We turn now to test whether this relation has changed after the reform.

5.3.4 The Effects of Economic Reform on the Growth of Syrian Economy after 1991:

As noted earlier, the post-1991, particularly in the year 1987 (as Bai Perron structural break test confirmed (figure 5.3), has been marked by a decline in the public capital formation in Syria indicated by the Public investment/GDP ratio. This moderation is likely to have influenced different economic variables. Thus, in order to capture the effects of policy shift

after 1987, we have two options: First, to capture the effect of policy-shift after 1987, a dummy variable could be included in the growth model. The shift dummy variable is defined as:

$$Dummy_{reform} = \begin{cases} 1, & \text{if } Year > 1987 \\ 0, & \text{otherwise} \end{cases}$$

Otherwise, we can divide the whole study period into two separate periods; however, as a tool of understanding the stability of regression (i.e., for comparing two separate regressions), the dummy variable approach has some advantages over Chow-test.

However, as the data series is not long enough to perform a *long co-integration or short-run* analysis for the two different periods (pre and after reform) from one hand, and due to the existence of many structural breaks in the time series, and thus, dummy variable is the co-integration framework is not reliable, from the other hand. Further, the time series data for two sub-period exhibited non-stationary trend. The results of the test for unit roots or non-stationary using ADF for each series in two different time periods is presented in table (5.7):

Table (5.7): Results of Stationarity test of Pre and post-reform

Variables	Pre-Reform (1970-87)			Post-Reform (1988-2010)		
	Logarithmic Level Data	First Log-Difference	Decision	Logarithmic Level Data	First Log-Difference	Decision
	ADF	ADF		ADF	ADF	
ln_GDP_SYR	0.17*	0.00	I(1)	0.96*	0.00	I(1)
ln_NCF_PRIV	0.13*	0.02	I(1)	0.38*	0.01	I(1)
ln_NCF_GOV	0.25**	0.05	I(1)	0.86*	0.03	I(1)

Source: Author's compilation after application of the E-Views 10 software, 2019.

*significance at 1% level, **significance at 5% level.*significance at 1% level, (all coefficients are significant at 1%level)

As all data in logarithmic form, and shows non-stationary trend, thus, regression analysis is not possible. However, in order to investigate whether the long run equation exhibits any break after reform, we have done a structural break test of the co-integration equation in model one using Gregory and Hansen Co-integration.

Gregory and Hansen Co-integration Test:

The Gregory-Hansen is an extended approach of similar unit root test but it incorporated a structural break, designed mainly to test a break in an implicit co-integrating relationship (Gregory & Hansen, 1996). The test is a residual-based test, extended the approach of (Engle

& Granger, 1987), which include a test for the null hypothesis (there is no co-integration) against an alternative (there is co-integration with a single regime shift).

H0: There is *No* Co-integration at the breaking point⁴²

H1: There is a Co-integration at the breaking point

The results of the Gregory and Hansen residual-based test is showing in the table (5.8) *at level shift*:

Table (5.8): Gregory and Hansen Co-integration Test:

	Test Statistics	Breakpoint	Date	Critical value 5%
ADF	-5.49	18	1987	-3.92
Zt	-5.36	18	1987	-3.92
Za	-28.12	31	2000	-20.14

Source: Author's compilation after application of the E-Views 10 software, 2019

According to the result, we reject the null hypothesis of no co-integration. Implying the fact that the linear combination of the three variables included in the model (1) exhibits a stable relationship in the long-run, but with two structural breaks in 1987 and 2000. Yet, there is no changes in the co-integration relation although with a breaking points. We also repeated the test for *a level shift with a trend*, and for the third model of *intercept and slope*, we find both Zt and ADF are higher than 5% critical value. The null hypothesis is rejected in all three models. *Thus, the long-run equation between GDP, private and public capital stock is stable for the entire period, pre and post-reform.*

In sum, GDP responding positively to changes in private and public stock in the entire period (1970-2010) and for the two sub-periods of the model (1); pre- and post- reform. However, *the declined quantum of public capital and increased quantum of private one are expected (through reform policy) to enhance the growth of output in Syria. While Public capital continues to have a positive influence on the GDP, the private investment was lesser important compared to the public one in the long run, ant this relation has not changed after reform.* This is contrary to the general expectations of neoclassical and also in contrast to the argument put forward by WC institutions, who advocate expenditure reduction. On the other hand, private investment has expanded impressively especially after 2003, not after 991, due to the implementation of reform agenda that strengthened its role, *yet the surge in private investment has not been sufficient enough to offset the dramatic fall in public investment after 1991; the test shows that the net effect of private capital did not change pre- and post- reform.*

⁴²We reject the null hypothesis if the absolute value of Zt statistics is higher than the 5% critical value.

This result implies that the process of reduction in public capital has helped the cause of inducing private capital role. Yet, this improvement did not reflect in GDP. Thus, Syrian economy has performed better in reform period with regard to private capital only.

‘Given the continuing weakness of private investment, public investments may need to be accelerated to fill in for GDP growth’.

Having shown the relation between private, public capital investment, and GDP growth during the pre and post-reform period within Syrian economy, we turn now to investigate the relation between private and public capital formation during the same periods.

5.4 Model 2: Impact of Government's Investment on the Private Investment in the Pre and Post-Reform Period in Syria:

Whether the public capital causes a crowding-in /out the private sector will be examined in the second model. If the public capital enhances the private investment, we can argue then that marginal productivity of private capital β reflects the rate of public sector investment, and therefore judgments made simply by curbing the size of a public investment well be a mistake (Khan, 1990). The private sector equation can be set as:

Model two: $\ln K_p = \alpha + \gamma \cdot \ln K_g + \partial \cdot SYR_{EURO} + \mu_t$ (2)

SYR_EURO: is the Index of real euro exchange rate (2000=100; an increase means a devaluation): Real Exchange Rate (1€ = xx SYP, 2000=100).

Given the fact that the private sector’ response to an expansionary monetary policy through exchange rate channel is stronger and more persistent than interest rates or credit in the case of Syrian economy (Syrian planning commission, 2007, 08, 09), we include the index of exchange rate in the private sector model and we exclude the other variables from the model. Thus, the model (2) includes the following variables:

Private Sector- Model 2- SYR

Model	label	variable description
Model -2	PRIV_INV_SYR	Real Capital Formation _Private sector
	GOV_INV_SYR	Real Capital Formation _government sector
	SYR_P_EUR	Index of real euro exchange rate (2000= 100): exogenous

Same to the model one, first we test for integration and unit root test. Table (5.4) shows the integration results where all the two indigenous variables included in this model

(PRIV_INV_SYR, GOV_INV_SYR) are found to be I(1), while the third variable is exogenously determined, and thus, it doesn't enter the long-run estimation. Then, we perform two test steps: (1) identifying the optimal lag, and (2) testing for the numbers of co-integration vectors [see appendix one, tables (4) and (5)]. The results of long run and short run estimation in this model are presented next.

5.4.1 Long-run equation: Normalized Co-integration Coefficients: 1970-2010

The co-integration evidence is shown below: Private and public capital formation tends to move together in the long run. The co-integrating equation at the long-run (normalized on log PRIV_INV in Syria) is described in table (5.9). The results of co-integration (normalized vector) reveal that the long-run estimate between real private capital formation and real public capital formation within Syrian economy are positive and highly significant.

Table (5.9): Long-run equation: Normalized Co-integration Coefficients: 1970-2010

variables	Ln_INV_PRIV_SYR	Ln_INV_GOV_SYR
Co-integration coefficients	1.000	+0.246218
[t-ratio]		[-1.93270]
(Standard error)		(0.17186)

Source: Author's compilation after application of the E-Views 10 software, 2019.

Ceteris paribus, an increase in real capital formation for public sector affects the private capital formation significantly in Syria. The t-ratios are significant at 1 percent. A one percent increase in public investment increase the private one by 24 percent, which is statistically significant. Thus, in the long run, it comes into view that Syrian public capital has a complementary to the private capital.

Short-run:

EC model results (table 5.10) exhibit strong co-integration among the variables where the deviations from the co-integration relationship between private and public capital are stationary. The EC model is estimated using one-lag differences for the two variables; in the short run, an increase of 1 percent in public investment in the course of the first year, give a direct rise in private investment by 49% in the second year, which is statistically significant.

Thus, the hypothesis that government investment has a negative relation with private investment is rejected, the positive relation of the coefficient suggests the crowding-in which is statistically significant.

$$Dln_{GCF_{PRIV}} = \check{\alpha} + \beta_1.Dln_{GCF_{GOV}} + \beta_2.M_{SYR_EUR} + \theta ECT_{t-1} + \mu_t$$

Table (5.10): EC model-2 estimate Total period (1970-2010)

	Coef.	<i>Dln_INV_PRIV</i>	p-value
c		-0.14**	(0.05)
D(LN_INV_PRIV(-1))	β	0.18	(0.19)
D(LN_INV_GOV(-1))	γ	0.49*	(0.00)
<i>ECT</i> _{<i>t-1</i>}	θ	-0.27*	(0.00)
M_SYR_EURO00		0.00216*	(0.01)
R-squared		0.49	
Adj. R-squared		0.38	
F-statistic		4.32	(0.001)
Durbin-Watson stat		1.90	
Number of Coefficients		12	

Source: Author's compilation after application of the E-Views 10 software, 2019.

For the EC, as the theory predicts, all variables are correctly signed and significant, giving that a deviation from the long-run private investment by 10 percent in the course of first year is corrected in the second year by 49 percent. Both variables are approximately equal for the correction (11% for government and 10% for private). The high value of error correction reflects the fact of complementarity relation between the two variables under consideration in Syria. It is worth to mention the index of real effective exchange rate, which seems to have a relatively small effect, yet highly significant. A devaluation would affect the Syrian economy quite differently. Until 2010, the impact of oil on overall exports was quite large. With less oil available to export, the external value of the Syrian Pound will decline in the future. At the same time, agriculture, manufacturing, and service sectors will become much more important for Syrian exports. Therefore the price elasticity of Syrian export goods will increase. Thus, a slight devaluation of the Syrian Pound and higher price elasticity of export goods will increase the chance for the Syrian economy to substitute the declining oil exports. Finally, EC model is well specified, as none of the diagnostic tests failed [see appendix one, table (6)].

We turn now to test whether this relation has changed after the reform. As the available data are quiet short (as the regression on 20 observation is not reliable), and as the time series found to be co-integrated and the relation between two variables (public and private investment) is complementary to each other, thus, we cannot include a dummy variable in the co-integration equation. Accordingly, we prefer to run a simple correlation analysis of the two sub-periods.

5.4.2 Pre and Post Reform Period Correlations:

In statistical terms, we use the correlation between private and public investment to denote the association between two variables in the two sub-periods in Syria. We also assume that the association is linear, which includes an estimation of the finest line which could synopsize the correlation. Figure (5.9) shows the scatter diagrams of the relation between two types of investment in two separate periods. Analysis shows a strong and positive correlation between private capital formation and public capital formation in Syria in the two periods, and it is highly significant at 1% level. However, looking at the scatter plots graph and regression line in the pre-reform period (1970-87), we see that there is a complete correlation (close to one: 0.92), while the correlation becomes lesser closer after reform. Yet, it is positive by 0.57 in the post-reform period.

Thus, a complementarity relation is also exist in the pre and post-reform periods among public and private capital formation.

Figure (5.9): Correlation illustrated by private and public investment in pre and post reform period.

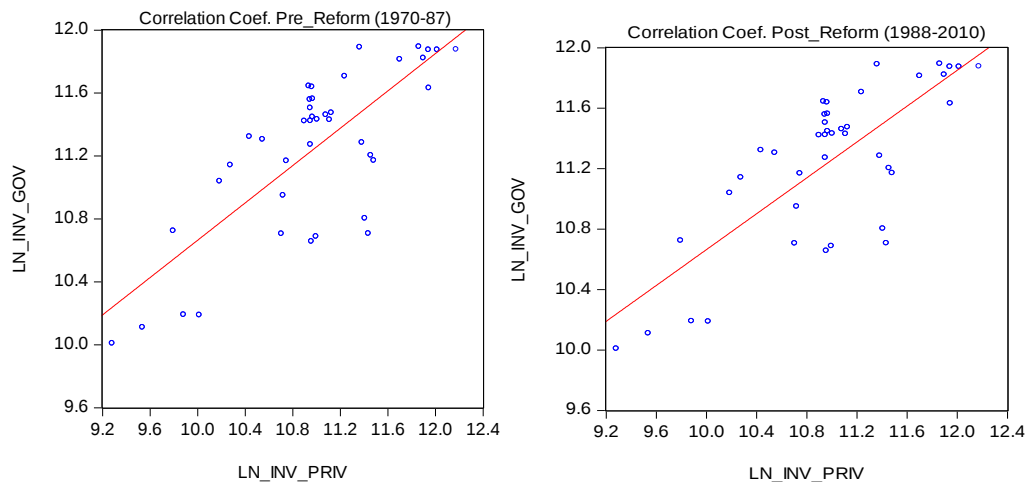


Table (5.11): Covariance analysis

Covariance Analysis: Ordinary			Covariance Analysis: Ordinary		
Sample: 1970 1987			Sample: 1988 2010		
Included observations: 18			Included observations: 23		
Correlation			Correlation		
Probability	LN_INV_PRIV	LN_INV_GOV			
LN_INV_PRIV	1.000000		LN_INV_PRIV	1.000000	
	-----			-----	
LN_INV_GOV	0.920671	1.000000	LN_INV_GOV	0.579995	1.000000
	0.0000	-----		0.0000	-----

Source: Author's compilation after application of the E-Views 10 software, 2019.

5.5 Conclusion:

In this section, an empirical attempt has been made to test the behavior of supply and demand factors which could explain the long-term growth in Syria, through conducting multivariate co-integration tests for Syrian data over the period (1970-2010). Through applying long run test, we have found two co-integration vectors which described the growth accounting and mechanism within Syrian context.

From the supply-side, we have found that the public capital stock is the key determinant of growth in Syria, followed by the private capital stock. While from the demand-side, the public investment appears to have a significant role in the short and long run, as it influenced the growth directly and indirectly through the channel of private investment (in which crowding in effect found to be significant), and thus it is more important in the growth accounting in Syria compared to the private sector in the short run. In contrast, the private investment appears to influence GDP growth with a lag of two years. These results provide strong evidence to the Keynesian theory that it is the investment behavior determines the extent to which household savings are realized in the form of capital accumulation. Thus, bringing down public capital formation could have a series of negative effects on the Syrian economy in the long run. At this point, one might consider the neoclassical point of view in which an excessive public expenditure, with deficit financing, will lead to inflation and thus restrains the growth. However, in order to address this issue, we conduct a Granger Causality based on Block Exogeneity Wald Test. We run a multivariate time-series regression (VAR) of two variables (the output or the GDP of Syria and the money supply (M2)) on lags of itself and on lags of each other. Then, we performed a Granger causality test by regressing y (output) on its own lagged values and on lagged values of x (money supply) and test the null hypothesis:

H_0 : M2 does not cause the Output

H_1 : M2 does cause the Output

The results of the test is presented in table (5.12) which clearly show that (the p-value <5%), and thus the null hypothesis is rejected and our conclusion is to be money-supply does 'Granger-cause' output in Syria.

Table (5.12) VAR Granger Causality

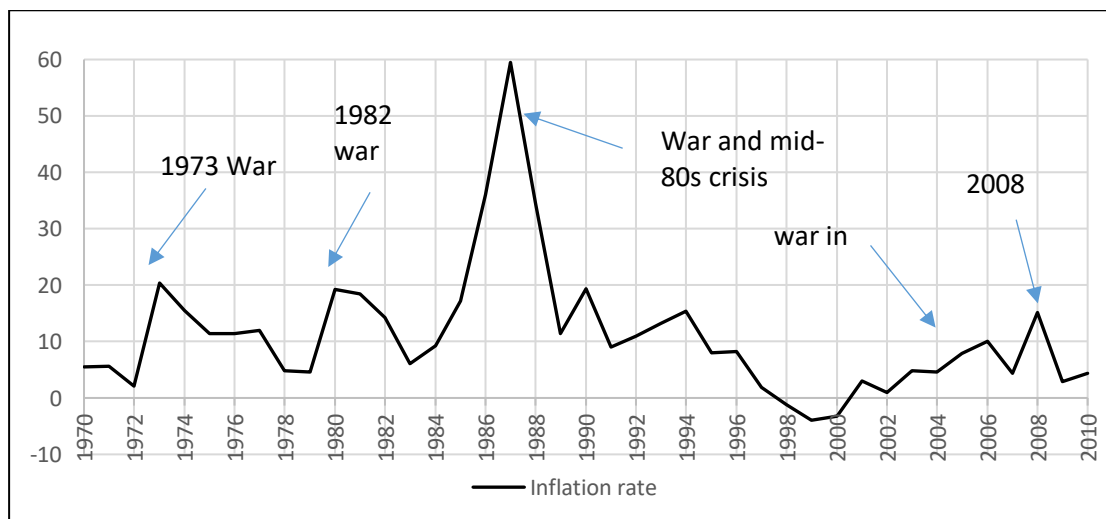
Data sample: 1970 2010		
Number of observations: 40		
Dependent variable: D(LN_R_GDP00)		
	Chi-sq	Prob.
Independent variable: D(M2)	4.699888	0.0302
All	4.699888	0.0302

Source: Author's compilation after application of the E-Views 10 software, 2019.

Indeed, although the inflation rates of Syrian economy are quite high, yet it reflected many disturbing factors. It was a result of successive wars in 1973, 1982, 1984, drought in agriculture sector (mainly in 70s), and mid-eighties full-fledged financial crisis. After 1991, Syria achieved a political stability which reflected in lower rates of inflation only up to 2003. The year witnessed a war in Iraq, in which it put fiscal pressure on Syrian government due to the sudden rise in domestic demand as a result of Iraqi refugees' inflow. Further, the year of 2008 Inflation increased in 2008 because of the high price of food and oil in the international market. Thus, 'the alternative hypotheses were supported' of which the null hypotheses (number 4 and 4.1 were rejected). In this case, public investment in Syria proved to be supported to the growth process, and an excessive expenditure did not cause an inflationary pressure in Syrian economy.

Finally, we found also, in the second model, that private investment responded positively to the expansionary government policy, and the crowding out hypothesis was rejected in the pre and post reform periods. Thus, statistical test did not support the null hypothesis (no. 5), but it provided an evidence against it.

Figure (5.10): SYR- Inflation rate



Source: Syria's Central Bureau of Statistics, Various Issues.

In the case of the Syrian economy, the analysis in this chapter showed inherited problems in private investment in Syria: ***one explanation for that*** maybe due to the fact that most private sector firms are micro or small- and often family-owned; a large number of firms are informal: the last estimation of the informal sector in Syria showed that this sector is about more than the half of GDP. Further, the private investment channeled into less productive activities while investment in industry and communication have been neglected; private investment in Syria is essentially affected by ‘structural’ impediments, inadequate access to credit, infrastructure bottlenecks mainly related to electricity, business environments such as rules and legal system which constitute a deterrent to private investment as well. According to the present analysis, the investment ratio in Syria (private + public) slightly above 20%, below what one would expect for Syria’s level of development. Further, it is much lower compared to the international standard. Thus, the public investment need not be cut down, rather we should direct it into strategic areas (electricity, and infrastructure), in order to enhance the growth process. On the other hand, private investment (domestic and foreign) need to provide further support at the macro-level such mainly financial facilities and credits, incentives to invest in specific areas to solve misallocation problem.

IMF (2005) reported that Syria is likely to become a net oil importer by 2020 due to the dwindling of oil reserves. With the decline of oil exports during the coming years, *Syria’s economic perspective will depend on its ability to replace the oil exports with exports of agricultural and manufactured products as well as services. Growth and diversification of non-oil exports is a key component of inclusive growth in Syria.*

CHAPTER VI

State & Economic Growth: Pre- and Post- Reform

Evidence from India

6.0 Introduction:

During the early stage of development, post-1950, the expansion of the Indian state took place through multiple channels, most importantly, the increase of government investment in almost all economic activities. Later, in the early 1990s, the evidence from India showed that public and private investment started to diverge after ‘reform’, as India became a fashionable example in the new world by attracting significant foreign private investment, while the role of public investment diminished- accounted for less than a quarter of total investment.

Accordingly, in this chapter we first analyze several aspects of government expenditure under the economic classification (Revenue and Capital), and compare their trends and main components during the pre- and post- reform periods in India (from 1970 to 2013). Second, a brief review of the performance of India’s public and private investment during planning and liberalization periods will be presented (from 1950 to 2013). In the third section, the links between private and public capital and growth during the planning and reform periods in India will be examine. Two main questions addressed here: (1) what is the differential impact of a unit amount spent on public and private investment on economic growth in India? And (2) does public investment expenditure substitute or complement private investment in the economic growth process during the pre and post-reform periods?

6.1 Trend and Composition of India’s Government Expenditure from 1970-2010: Changing Structure?

Unlike Syria, the behavior of aggregate government expenditure and its components in India can be viewed at different levels- Centre, States and Union Territories, and Combined level (of Centre, States and Union Territories). However, for the convenience of comparative analysis, the combined level will be presented in this section. Further, for comparative considerations, the allocations of public expenditure, according to revenue and capital, are taken up between 1970 and 2011/12.

6.1.1 Trends in Expenditure of the Combined Government – India:

The total expenditure of the India's government since 1970 until 2010 can be broadly grouped into four phases corresponding to the planning periods:

Table (6.1): India's government expenditure in different phases as share of GDP

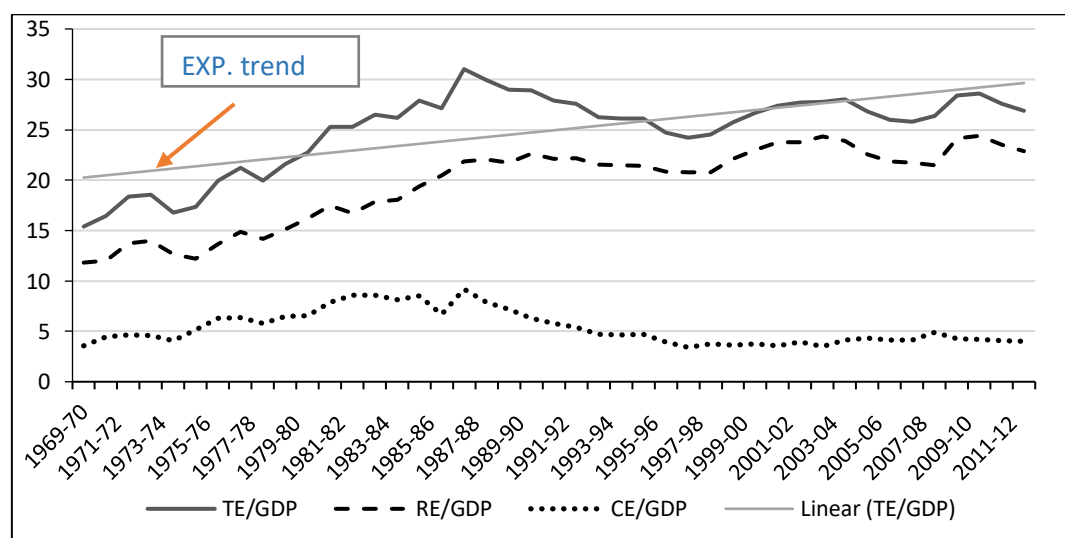
	phases	Plan (no)	period	RE	CE	TE
First half	I	4	1969-70-1973-74	12.8	4.3	17.1
		5	1974-75-1978-79	14	6	20
		Rolling plan	1979-80	16.2	6.6	22.8
Pre - Reform	II	6	1980-81-1984-85	17.9	8.4	26.2
		7	1985-86-1989-90	21.8	7.4	29.2
		annual	1990-91	22.1	5.8	27.9
		annual	1991-92	22.2	5.4	27.6
Second half	III	8	1992-93-1996-97	21.2	4.3	25.5
		9	1997-98-2001-02	22.7	3.7	26.4
Post - Reform	IV	10	2002-03-2006-07	22.9	4	26.9
		11	2007-08-2011-12	23.3	4.3	27.6
Pre-reform	First half		1970-71-1991-92	17.1	6.4	23.1
Post-reform	Second half		1991-92-2011-12	22.5	4.1	26.7

Source: Hand Book of statistics on Indian Economy, R.B.I. 2019

TE: total expenditure; RE: revenue expenditure; CE: capital expenditure, all as a % of GDP (budget figures)

During the period under review, total expenditure in terms of share of GDP in India has shown remarkable growth in the first half (1970-1990) following the planning strategy. The figure below illustrates the annual trends of Indian government expenditure as a share of GDP (1970-2012).

Figure (6.1): India: Annual Trends in combined government expenditure % GDP



Source: Hand Book of statistics on Indian Economy, R.B.I. 2019

Total combined expenditure of the Indian government showed excessive growth and expansion from the early 1970s up to 1990, which covered the fourth, fifth, sixth and seventh five years plans. It had approximately doubled as a percentage of GDP from the 4th FYP of 17.1% to 7th FYP of 29.2% of GDP, recording a peak in 1987 of 30 percent of GDP.

The major factor for the growth story, however, has been the revenue expenditure (RE) which recorded an increase of 6 points since the second half of 1970s (14.37%) and continued to the phase II (1980-1990) with an average of 20%. In contrast, CE was showing a marginal increase; it registered 7.9% on average for the entire decade of the 1980s, compared to 6% during of second half of the 1970s. Thus, we can say that India's government spending was continuously increasing until 1990, in both current and investment accounts, for the following reasons:

1. The active role of the Indian government since independence in implementing huge investments in different economic sectors; because public investment increased as plans roll-on, government expenditure was also rising: huge public sector industries have been in existence in railways, steel, heavy electrical, petroleum refineries, banking, insurance, defense production, telecommunications, textiles, fertilizers, printing, paper mills, cement, coal and other mineral mining, shipping, thermal and nuclear power, space research, etc.
2. State activism in providing subsidized seeds and agricultural boards and procurement agencies like Food Corporation of India, agricultural credit, and rural electrification (1966-77), and the adoption of abolishing poverty program during the same period. The state undertook public irrigation and canal building on a large scale.
3. The spending boom between 1977 and 1991 where the government drove subsidies up and expanded antipoverty schemes, especially rural employment schemes.
4. Massive increase in the defence expenditure.
5. The state is the major provider of education, health, administration, police, judiciary and federal political structure from village to district to state to national level.

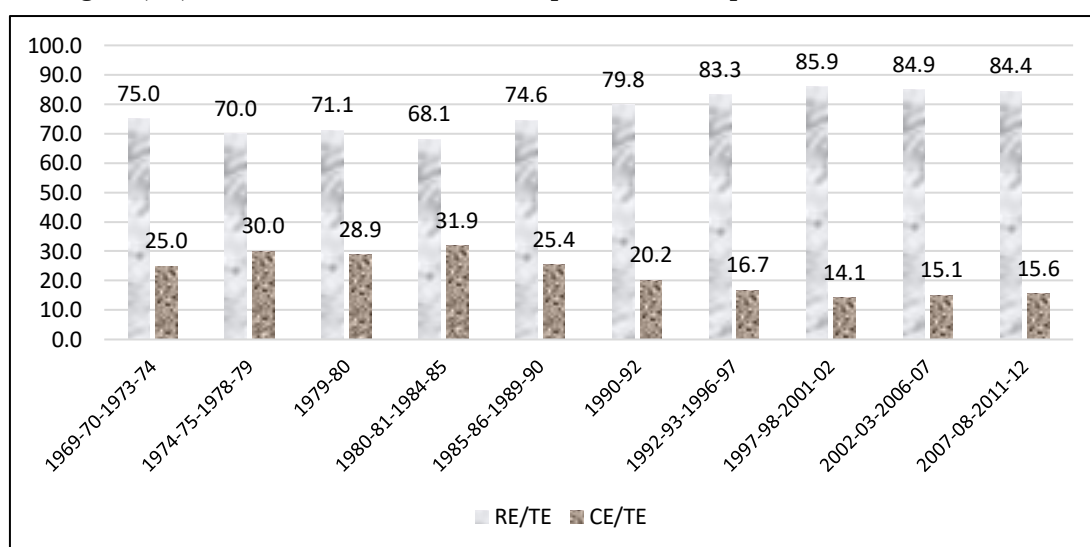
During the second half of the period under study, consisting of the third and fourth phases covering the post-reform period -running through 1992 and up to 2010, we can see a decline of TE during the 8th FYP (1992-93 to 1996-97) of 4 points from previous 7th FYP on account of stabilization measures taken by the Indian government after 1991-92. A close examination of the combined expenditure after 1991 showed that the RE maintained a high level of around 23.1 percent of GDP for the period of 2003-2012. In contrast, CE had been

gradually declining since 1995-96, reaching the lowest level in 2002-03 of 3.5 percent, and maintained the level of 4.2 percent for the entire period of 2003-2012.

In short, the TE of the combined level of Indian government had increased from 23.1% in the first half of our study period (1970-91) to 26.7% in the second half of our study period (1992-2012), in which the RE increased by 3 points in the post-1991 compared to pre-1991 period, while the capital expenditure decreased significantly in the second phase compared to first phase. Thus, keeping with reform philosophy, total expenditure (TE) was brought down, however, the major weight of the reduction was borne entirely by the CE which exhibited a steady decline even after 1996-97.

For comparative assessment, the expenditure within Indian economy has to be studied under the economic classification of capital and current (revenue) expenditures. Figure (6.2) exhibits shares of RE and CE at the combined level of Indian government expenditure.

Figure (6.2): India: Share of Revenue & Capital of Total expenditure at different FYPs



Source: Hand Book of statistics on Indian Economy, R.B.I. 2019

Looking into the capital expenditure in terms of (% share) of total expenditure, it had remained at the same level for the overall period of pre-1991: around 28.1% on average, except for a decline of 3% in the phase 1985-90 that corresponded to the seventh plan (compared to previous plan). The decline in CE had been gained by RE which showed an increase of 3% for the same period. Yet, RE averaged about 71.9% of total for the entire pre-reform period. The scenario of post-reform period exhibited a further decline in CE of total by 12 points compared to pre-1991 period. On contrast, RE increased to 83.7% for post-1991 period, an increase of 12 points. Thus, the loss of CE had been gained by RE during the second half after 1991 as well.

It is the tendency of public investment reduction in the process of economic development is in line with the general trends of Indian economy after the adoption of ‘market reform’ after 1991. However, the cut of CE was not a part of general cut in TE, as was the case in Syria; rather, the investment spending losses had been the gains for RE. Thus, this may have a consequence in the form of decline in economic growth rates in the long term, especially if India’s state is not able to direct the private sector toward the general goals of development strategy.

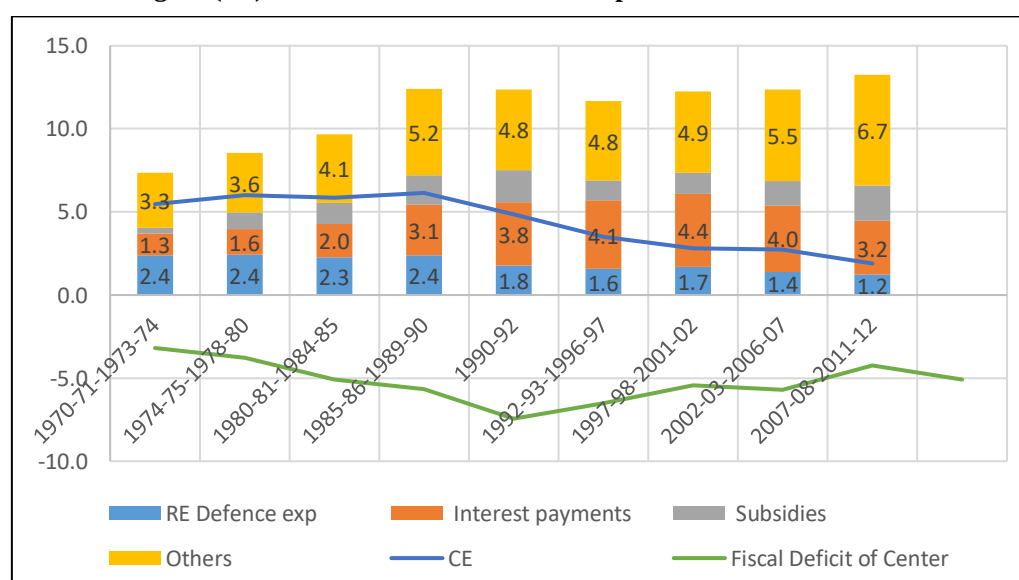
In addition to the broad periodization discussed above, the more intuitive way is to look at the five-yearly average of the RE of both center and states and its different components.

6.1.2 Composition of India’s Government Expenditure -Central & States’ Level

Central level:

The first phase consisting of the decade of the 1970s saw the total public expenditure of the center as a percentage of GDP, starting at 11.81 percent in 1970-71 and increasing to about 14 percent in mid-1970s, with additional increase by the end of decade to about 15 percent of GDP in 1979-80. Hence, the decade of the 1970s, which consisted of fifth and sixth FYPs, witnessed a steady increase of TE of the center.

Figure (6.3): India-Center Government Expenditure as share of GDP



Source: Hand Book of statistics on Indian Economy, R.B.I. 2019

During the second phase running through the 1980s, public expenditure of the center continuously increased. The figure registered 15 percent in first half of the 1980s before

reaching the peak of about 19.5 percent of GDP in 1986-87, with a slight decline of 1 point during the second half of 1980s. Phase III, i.e. the first decade of the reform period (post 1990), witnessed the shrinking of total expenditure as a percentage of GDP, which gradually came down by more than 4 points, registering the lowest level, in 1996-97, of 14.16 percent. Later, during the phase IV, TE of the center seemed to be heading upwards, albeit marginally maintaining the level of 15 percent between 2000 and 2010. *However, TE of the center during the second half of our study period (post-1991), on average, was maintained at the same level as that of the first half (pre-1991) - around 15% of GDP.*

However, the two economic categories of TE of the center, RE and CE, behave in tune with TE in the pre-1991 period. Nevertheless, it is in post-1991 period of phases III and IV where the two categories behaved contrary to each other. Revenue expenditure has been the dominant component (about 12%) in phase III compared to 3.14% for capital expenditure. Further, the CE reached below the 2% level at the beginning of the new millennium, and averaged about 2.32% for the entire decade of 2000s, while the RE increased by an additional 2 points during the 2000s compared to that of the 1990s, achieving its peak, in 2008-09, of 14% of GDP. Hence, the trend clearly is in tune with the RE and CE at the combined level in which the RE increased on the account of CE.

Figure (6.3) exhibits shares of GDP on five yearly averages base of major components of RE at corresponding FYPs in India (bars), and CE (line) at the center level: (1) defense expenditure is one of the major items of public expenditure that is incurred only by the center. (2) Interest payments emerged as a major component of RE of the center. It doubled to about 4% of GDP by the late 1980s, with additional increase at the beginning of millennium, registering 4.64% of GDP in 2002-03. (3) Subsidies in India (including transfer payments), similar to those in Syria, consist of production and consumption subsidies. At the center, total subsidies bill as a proportion of GDP gradually increased since 1970, registering a peak at 2.09% of GDP in 1989-90. As might be expected, pruning of the expenditure on subsidies took place after 1991. It declined by half in 1995-96 before stabilizing at 1.33% on average, until 2006-07. (4) Pension payments is one of the rapid growing components of the center's expenses.

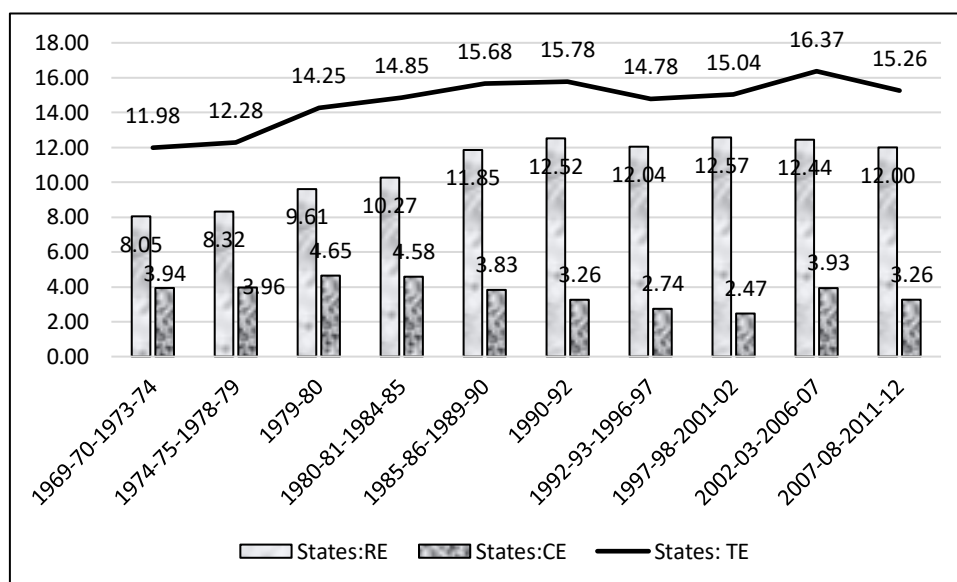
Capital expenditure of the center consists of loans and advances, development and non-development expenditure (capital defense grouped here). Up to 1982-83, CE accounted for a significant chunk (about 40%) of TE of the center. It continued to decline, reaching 30% of TE by 1990-91, and deteriorated to just about 11% of TE by 2006-07. Hence, almost the entire cut of the expenditure initiated in the 1990s had been borne by the CE.

State Level:

At the state level, the expenditure behavior is in tune with the center and combined level. Figure (6.4) shows the TE, RE, CE at the state level. Total expenditure of the states increased steadily during seventies (12% percent on average) and eighties (15.1% on average) registering a peak in 1987-88 of 16.25% of GDP. It fell back by one point to only about 15 percent in the 1990s, and increased again to about 16% during the 2000s.

The divergence between the capital and the revenue' expenses was growing since 1980-81, where the CE was falling, to the benefit of RE. CE of the state reached below 3% of GDP during the 1990s, with a significant increase by one and a half points on average during the 10th and 11th FYPs. Yet, the increase was not accompanied by a decline of RE, rather, the RE maintained the same level for the last two phases - around 12.3 percent GDP.

Figure (6.4): India-States Government Expenditure as share of GDP



Source: Hand Book of statistics on Indian Economy, R.B.I. 2019

6.1.3 Economic Reform and Government Expenditure in India:

India embarked on fiscal reform-fiscal discipline, in both capital and current accounts. As the economic reforms started on a massive scale in the early 1990s, the expenditure reform in the form of expenditure cut (as a percentage of GDP), under the stabilization policy measures, had been achieved in the early 1990s (detailed above). Later, the Structural Adjustment Programme (SAP) carried a wider agenda for fiscal reform and PE, as an integral part, and included-expenditure targeting, and improving its efficiency and productivity. Thus, the Indian government, by and large, sustained these reforms during the 1990s and made further

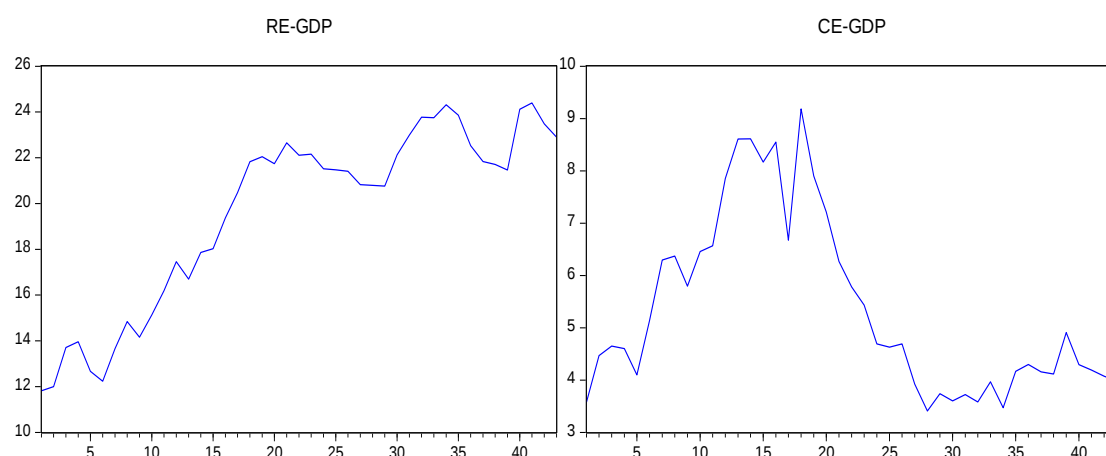
steps towards expenditure reform in 2000 when the government pronounced the establishment of ‘Expenditure Reforms Commission’ February 2000 (Premchand & Chattopadhyay, 2002).

A close examination of the changes that had occurred in government expenditure in the post-reform period, using the structural break tests are identified next.

Bai-Perron Structural Break Test:

By calculating the natural logarithm of: (1) share of capital expenditure in GDP (CE/GDP), and (2) share of revenue expenditure in GDP (RE/GDP), we checked the structural breaks in the two variables separately by running a least square regression by regressing each series on a constant. We applied this test to investigate whether exogenous shock, which is the debt crisis that occurred in 1991-92, was capable of driving the changes in government expenditures on current and revenue accounts in India.

Figure (6.5) IND. Bai-Perron structural break test



Breaking points using Bai-Perron multiple break-points test				
Breaking points	Series	1	2	3
2: years (7,24)	CE/GDP	1975-76*	1992-93*	-
3: years (10,16,31)	RE/GDP	1978-79*	1984-85*	1999-2000*
* Significant at the 0.05 level				

Source: Researcher calculation based on E-views 9

The two series witnessed different breaking points at a different times, meaning that CE and RE did not exhibit the same course simultaneously, opposed to the Syrian case. CE in India exhibits two breaking points. The first one, corresponding to 1975-76, witnessed a growth of capital expenditure by 39%. In absolute real terms, it registered an increase from 349 (in

1974-75) to 467.7 billion Rupees. As mentioned earlier, this increase was a result of state activism in the mid-seventies, mainly in agriculture and electricity.

The second break is also in line with what we found earlier in this chapter; it is correlated to the stabilization package (SP) implemented by the early 1990s, in response to the crisis. The year of 1992-93 witnessed a significant cut in CE from 7.4% of GDP in the pre-crisis phase (1985-89) to 4.3% (1993-97), a reduction of 41 percent.

However, the sharp decline of CE was *not* accompanied by a decline in RE. RE/GDP showed three different breaking points; the first one is well-timed with spending boom after 1977 where the government implemented anti-poverty and rural employment schemes, and increased subsidies. The second stands for additional increase of RE in mid-1980s where it grew by 10 percent on average in the 6th FYP. Finally, RE expenditure compression policy was unveiled only by late-1990s, in which it showed a negative growth rate, albeit a small one. Yet, it was temporary before it increased again, achieving a positive growth rate of 3.9% in 1999-2000 (the third breaking point). The question then: what did the PE reform stand for?

The 1991-92 budget was considered a remarkable shift at the policy level for economic development in India. The Indian government adopted ‘Stabilization Policy Package’ in which expenditure-cut (as a percentage of GDP), was brought down from a high of 29.2 % of GDP by almost 5 points to 23.1% of GDP. Thus there is a systematic attempt to reduce government expenditure in general, and in particular, in the capitals expenditure, is at the bottom of the so-called reform.

The subsequent years of 1999-2000 witnessed an important step towards expenditure reform since the government announced the establishment of ‘Expenditure Reforms Commission’, followed by ‘Fiscal Responsibility and Budget Management Bill Act in 2003’. The act provided different measures and regulations within an institutional system to ensure a low fiscal deficit and a sustainable debt ratio, with further provisions to rest revenue deficit. Further, the tenth FYP (2002-2007) subjected the Center as well as States to a zero-based budgeting and linked the resource flows to the performance of the projects.

To conclude, the reduction in public expenditure and several deficit indicators resulted in the fiscal discipline in India, mainly from the capital spending side. Before we try to understand whether these government actions have changed the course of GDP and private sector over the period 1991-2013/14, the performance of two types of investment (public and private) is examined first.

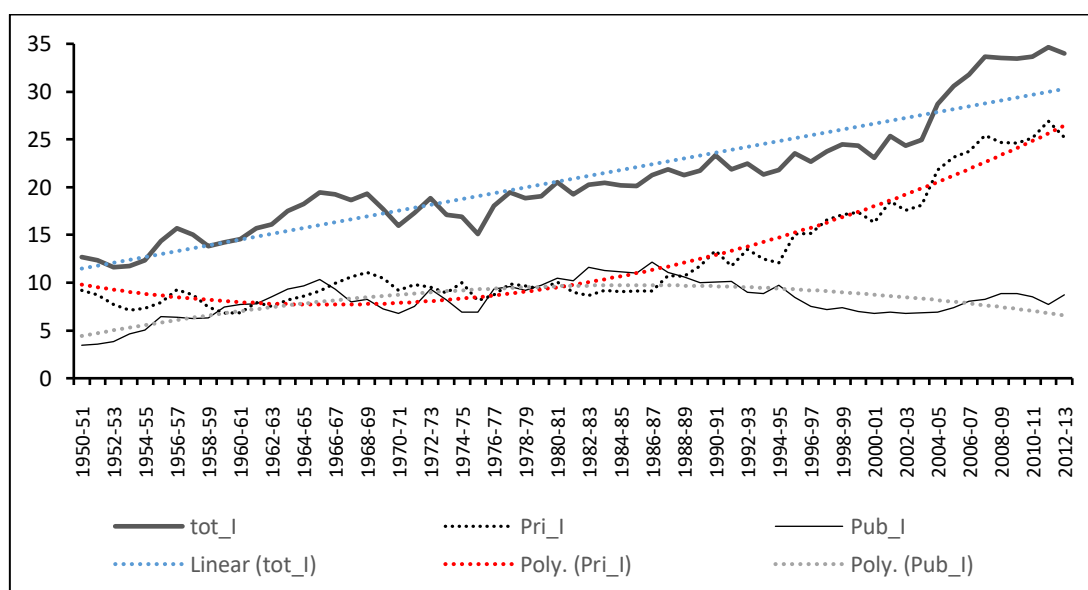
6.2 Performance of Public, Private Investment, and Saving in Pre and Post Reform in India:

This section first provides analytical framework of the trend of total capital formation rate, private and public shares of capital formation. Second, the allocation of private and public investment at the disaggregated level is reviewed briefly.

6.2.1 Trends in Rate of Capital Formation; Private and Public:

The trends of private and public investment have been analyzed using the rate of fixed capital formation to GDP (FCF/GDP) at constant price 2004-05 (using GFCF deflator), for the period from 1950-51 to 2010-11 at total and disaggregated levels, figure (6.6). Total investment had increased (in volume) from 1950 to 2013. The average share of total investment registered 17.5% of GDP for the planning phase, and it grew to 27.1% during the reform period under consideration (1992-2013). The growth in gross fixed capital formation has occurred in the era of liberalization, with a favorable business environment, in particular, after 2003, registering a peak of 32% of GDP by 2005, and has stayed around the same level since then.

Figure (6.6) India: Private and Public Investment % GDP 1950- 2013



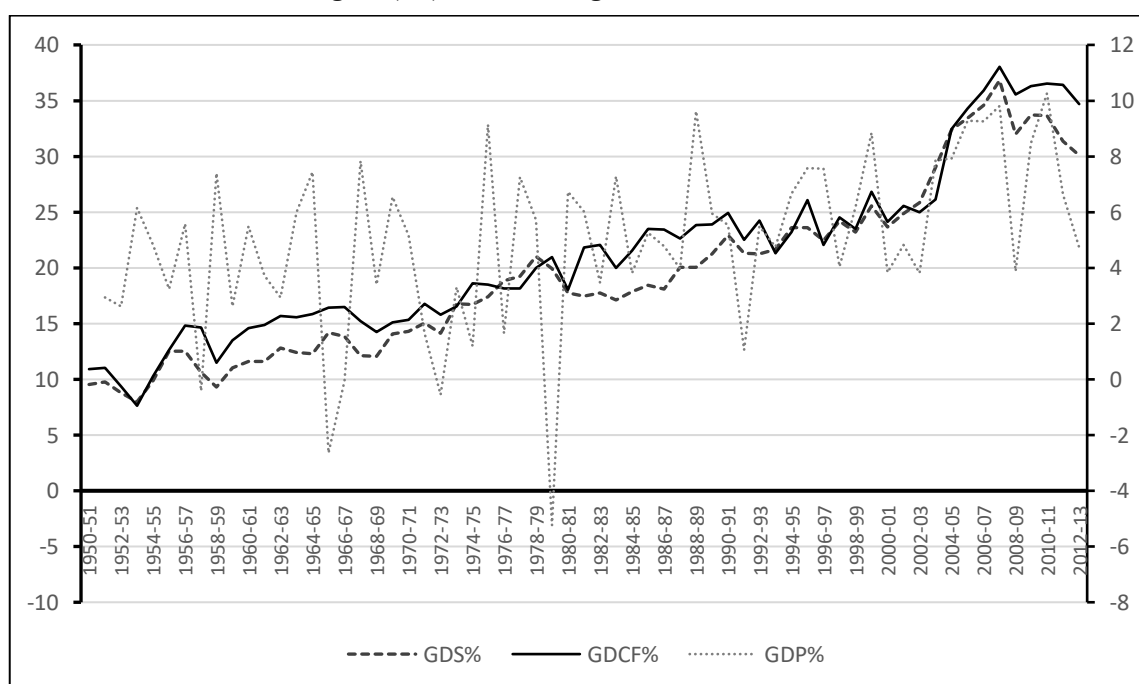
Phase	Share in GFCF		% share of GDP: 2004-05		
	private	public	private	public	total
Early stage 1950-60	59.2	40.7	7.9	5.5	13.4
pre-reform: 1960-1991	50.6	49.3	9.6	9.3	18.9
post reform: 1992-2013	70	30	19.1	7.9	27.1

Source: National Account Statistics, RBI, and authors' estimation.

Unsurprisingly, the main sector which was accountable for this increase in the rate of GFCF within the Indian economy after 1992 is the private sector. Looking at each sector in the two sub-periods, the trend shows that average share of private investment was 9% of GDP during the planning phase (1950-91), and it grew to 19% of GDP during the liberalization phase. The reform resulted in a huge boost to the private capital which stimulated the rate of capital formation in the economy as a whole.

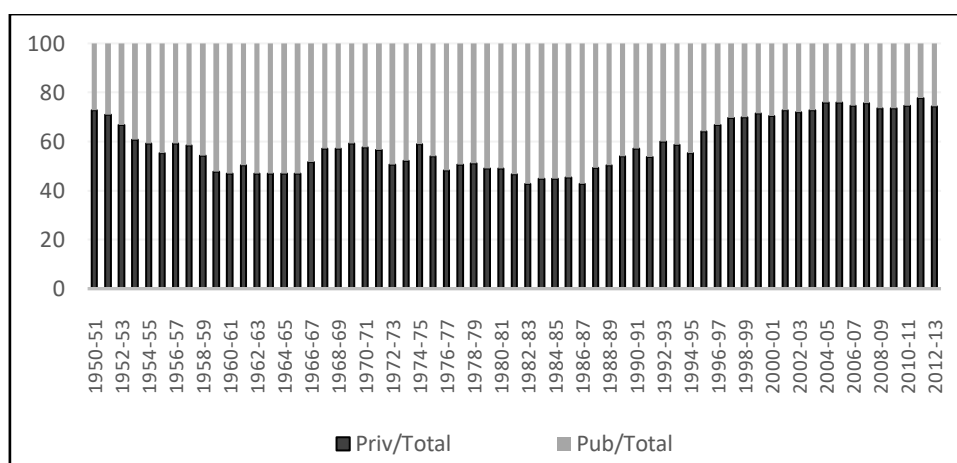
Figure (6.7) shows private and public investment contributed to about 50:50 to total investment in the pre-reform period, however, private sector investment expanded enormously during reforms phase, in opposite direction to the public sector. The private sector share of GFCF rose to 70% between 1992 and 2013, while that of public sector had diminished overtime in the post-reform period; its rate declined to 30% of total during the same period. GFCF, largely financed by saving (household saving in particular), and that of public saving has deteriorated after 1991, and thus. Further, with a lack of government resources to fund and boost investment, the private sector and FDI became critical for increasing the level of GFCF in India.

Figure (6.7): GCF, Saving & GDP trend in India



Source: National Account Statistics, RBI, and authors' estimation. GDP growth on right scale

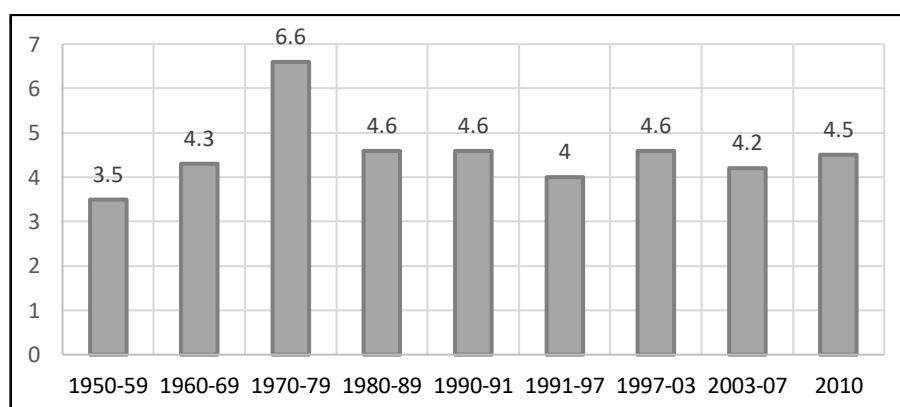
Figure (6.8) India: Share of Private and Public Investment of Total 1950- 2013



Source: National Account Statistics, RBI

However, investment rate alone is not enough; Incremental Capital Output Ratio (ICOR) is a key measure of unproductive capital: the lower the ratio, the more productive is the capital. ICOR levels in India (figure 6.9) have remained unchanged at 4.5 in recent years compared to 4.3 in the 60s. Indeed, the lowest level of this ratio was in the 1950s after independence, which pointed to 3.5. However, in recent years after reform, ICOR was stagnant at 4.6 between 1997 and 2003, then decreased marginally in the following years until 2007, and after that stepped up again to 4.5 in the 2000s. Thus, the efficiency of capital needs to be improved to boost the growth in India.

Figure (6.9): ICOR.IND



Source: Varun Bisht & Rajrishi Singha; Policy & Research Unit, Dhanlaxmi Bank
ICOR is computed based on the Planning Commission formula, which is (GFCF /GDP difference).

6.2.2 Sector-Wise Allocation of Private and Public Capital:

While private investment is a profit motive, public investment is driven by government policies. Thus, we use the investment data to describe the main sectors which have attracted the private investment in India after the reform, and whether there is any structural

transformation in the allocation of capital in the economy. Table (6.2) shows that private and public investment across sectors and sub-sectors are dissimilar, and with inconsistent balance. Over the years, share of agriculture investment in the total investment has declined, more rapidly in the 1990s, to 9.7% of total investment. Following this trend, public sector's share in capital formation in agriculture had declined since the second half of 1980s, registering 9.6% compared to 14.5% (1980-85), while that of the private sector had gone up simultaneously.

The private capital formation displayed a bias toward organized manufacturing sector which contributed about 46 percent over three decades after reform. A study by (Mazumdar, 2008) showed that although the manufacturing sector (in terms of capital formation) had been the dominant sector, and exceeds that of service and agricultural sectors, yet the output structure had moved in favor of services, in response to the demand expansion patterns (final and intermediate). Similarly, Rakshit (2006) noted the importance of high-income elasticity of demand for services which provides a push to GDP in services.

Table (6.2): Average Share of Private & Public Capital at Sectoral and Sub-Sectoral level

	1960s	1980-85	1986-1990	1991 -94	1995-00	2000-03	2004-08
% Share of GCF to Total GCF (constant 1999-2000)							
1. Agriculture							
<i>Public</i>	13.7	14.5	9.6	7.3	7	6.2	7.8
<i>Private</i>	23.5	19.1	14.3	14.7	8.7	12.1	7.5
<i>Total</i>	18.3	16.6	11.9	11.4	8.1	10.4	7.5
2. Industry							
2.1 Mining & Quarrying							
<i>Public</i>		8.9	11.5	9.8	9	5	7
<i>Private</i>		0.6	0.3	0.2	0.3	0.2	1
<i>Total</i>		5.2	5.9	4.5	3.4	1.6	2.4
2.2 Manufacturing							
<i>Public</i>		11.8	12.3	10.1	10.7	7.9	8.6
<i>Private</i>		46.1	48.8	44.7	54	36.6	48.7
<i>Total</i>		27.2	30.4	29.5	38.9	28.4	39.4

Data from NAS, various years

Looking into the contribution of service sub-sectors towards private and public sector capital formation (table 6.3), we find that finance, insurance, and real estate (48%) were the major-subsectors contributing to private sector GCF since 1980, followed by trade (25%).

Table (6.3): Average Share of Private & Public Investment in Service sector (at Sub-Sectoral level)

Services	1980- 1994	1995-2011
3.1 Trade, hotels & restaurants		
<i>Public</i>	1.5	0.2
<i>Private</i>	25.4	12.2
3.2 Transport , storage & communi		
<i>Public</i>	29.3	27.9
<i>Private</i>	20.8	26.3
3.3 Financing, insurance, real estate		
<i>Public</i>	5.9	6.1
<i>Private</i>	48.5	46.8
3.4 Community, social		
<i>Public</i>	63.3	65.7
<i>Private</i>	5.3	14.7

Data from NAS, various years

In contrast, public sector capital formation for the entire period was found to be the highest in ‘community, social and personal services’, which include public administration and defence expenditure. Transport and communication come in the second where they registered 28% on average of total public investment for the entire period (1980-2011). Thus, private investment began to exceed public one within the service sector.

We have examined in chapter four the contribution of the service sector investment to India’s economic growth. The service sector’ contribution to India’s GDP increased substantially after the reform period (See chapter 4). However, it is worth noting that ICOR for India’s service sector declined over time from 3.5% in the 1980s to 3% in 2011.

Table (6.4):IND. ICOR -Service Sector

Phase	ICOR -Service Sector
1980s	3.5
1990s	3.2
2000s	3.1-
2011	3

Data from NAS, various years

India has been witnessing a structural transformation over the past thirty years after reform, with the rising service sector’s share in the output. There is a change in the composition of private capital at sectors and sub-sectors levels. We found a shift with a declined trend in

agriculture's share in private investment, whereas that shares of industry and service sectors, particularly in finance and real estate, have become prominent; yet, they remained at the same level over the post-reform period. In another study done by Mallick (2009), it was argued that these changes were not strong enough to bring about a marked difference in the allocation of private investment across the sectors. According to him, economic reforms led to a sudden growth of capital formation in real estate, ownership of dwellings, and business services (which includes (ICT)) in India. This, along with manufacturing, contributed to the major increase in the rate of capital formation in the private sector as a whole during the economic reforms period.

The investment boom in services lifted the service export in India; India's share of world exports of goods and services in 1990 registered 0.5 percent of goods and 0.5 percent of services - roughly equal. By 2000, Indian export of goods was 0.7 percent compared to 1.1 percent for services, which further increased to 1.5 percent in 2010 (3.3 percent for goods). A study by (Barry & Gupta, 2012) tried to find the main causes of service boom in India. It concluded: (1) trade liberalization; (2) relaxation of restriction on foreign exchange and FDI liberalization; (3) compared to the industrial sector, the service sector is much less subject to labor market regulations and union restrictions.

India had a relatively favorable record in services productivity; hence, it can be said that the Indian services revolution may have had some roots in earlier Indian traditions (late 80s). However, the upward trend in the capital formation of the private sector since 1986–87 was coincided with the downward trend in public capital. Thus, it is useful to compare the correlation coefficients in the two sub-periods between public and private investment, and then test for the crowding out hypothesis.

6.3 Impact of Government's Investment on Economic Growth in the Pre and Post Reform Periods in India:

Our main purpose in this section is to estimate the public and private investment's effects on the Indian GDP for our study, for the entire period (1950-2013), and for the two sub-periods: the planning era, and neoliberalism. The following section presents the model specifications and methodological issues. The second section subscribes data properties of India and estimation results; the third part is for the conclusion.

6.3.1 Specification of the Model:

Similar to the Syrian case, we estimate the growth model for India over the period 1950-51 to 2013-14, and for the two sub- phases: pre- and post- reform. Following Aschauer (1989), Barro (1990), World Bank (1990), the possibility of differential impacts of private and government capital stocks on economic growth is considered. With a technical progress A to grow at a (constant) exogenous rate as in Solow work (1957), we get:

$$Y_t = A_t \cdot F_t(L, K_p, K_g) = A \cdot L^\alpha K_p^\beta K_g^\gamma$$

We directly analyze the interaction among the public and private capital stock and GDP, then test the differential effects of both components on the outputs. The output equation can be set as:

$\text{Model (1): } \ln Y = \alpha + \beta \cdot \ln K_p + \gamma \cdot \ln K_g + \mu_t \quad (1)$
--

Policy Shift:

The empirical studies and the view among some scholars and policy-makers argued about two key breaking points with regard to the structural breaks in the growth rate of Indian GDP. First view attributed the break to the 1990s, following 1991 balance of payments crisis, like (Ahluwalia, 2002) and others. In contrast, it has been argued by others that it is in the 1980s, well before the launch of reform, that GDP growth rate took off (5.06%) like J. Bradford DeLong (2001); Virmani (2006); and Rodrik and Subramanian, (2005). However, the 1990s and the 1980s reforms are dissimilar in which the latter was partial with incomplete agenda, while the former was more progressive, and with full written agenda.

In our analysis, we examine first the existence of a break in our study sample period of 1950-2013. Using Chow break-point, and instead of choosing a single breaking date, we perform the test assuming the breaking-point to be anytime between 1950 and 2013, and repeat the test for each year in the sample. The results indicate that there is a true underlying break in the model - the year 1980-81 corresponds to the year that gives the highest value of the break-point. Although, strong evidence of the break was found to be around 1980, the analysis of the two sub-periods will focus on the impact of retreated state's role in the economy. Thus, *the benchmark break in the sample has been taken in the year of 1991, corresponding to the policy-shift (reform) declared in that particular year.* To capture the effect of policy-shift after 1991, we will test the model over three different periods as follow:

- a. Total period: 1950-2013-14; 64 observations (Model 1.1)
- b. Pre-reform period: 1950-1991-92; 41 observations (Model 1.2)
- c. Post-reform period: 1992-2013-14; 23 observations (Model 1.3)

The data analysis with regard to all hypothesis has been followed the same sequence for the entire section.

Data Source:

The Data Source of the time series basically was taken from the Reserve Bank of India (RBI) for GDP at Factor Cost, while the GFCF for private and public sectors has been taken from the EPW Foundation⁴³. The data is available at constant and current price for the GDP, and at current price for GFCF (2004-05 base year). To obtain fixed capital formation (FCF) for private and public sectors at constant price, we have used the GDCF deflator at 2004-05 prices. We have not extended our analysis by incorporating recent data of the national accounts statistics for the period from 2013-14 to 2017-18. Two main reasons: the first is that the GDCF deflator for India for the period after 2013 has not been issued yet, and thus a ‘rescaling’ process to the 2004-05 base year cannot be done; the second is for the convenience of comparative analysis, in which our counter-part analysis for Syria was considered up to 2010 only.

6.3.2 Empirical Estimation- India:

In order to estimate the equation (1) directly, specific assumptions and methods have been made:

Capital stock: India’s net fixed capital stock series (NFCS) is calculated annually by The Central Statistics Office (CSO) of the Ministry of Statistics. The series is available at 2004-05 base year at the total and disaggregated levels (private and public) from 1980 to 2013 only. For the missing values from 1950 to 1980, we have obtained the series using *Perpetual Inventory Method* by taking the initial capital stock K_0 for the year 1950-51. Thus, Capital Stock follows the identity:

$$K_{t+1} = (1 - \delta)K_t + I_t$$

Where K_t is the total capital stock at time t, I_t is the gross fixed capital formation at time i, and δ is the depreciation rate. To obtain real gross fixed investment for the private and public sectors, the nominal series is deflated by the GFCF deflator at 2004-05 prices: *Real I_t* =

⁴³ <http://www.epwrf.res.in/>

$I_i/D_i * 100$, where D_i is the deflator at time i . Starting from the year 1950-51 as the benchmark year to of fixed capital stock, and adding the real investment in fixed assets for following years, and after deducting the depreciation, the net fixed capital stock series for public and private sectors are constructed as:

$$R_{Cap} = R_{Cap(-1)} * (1 - \delta) + Real I_i$$

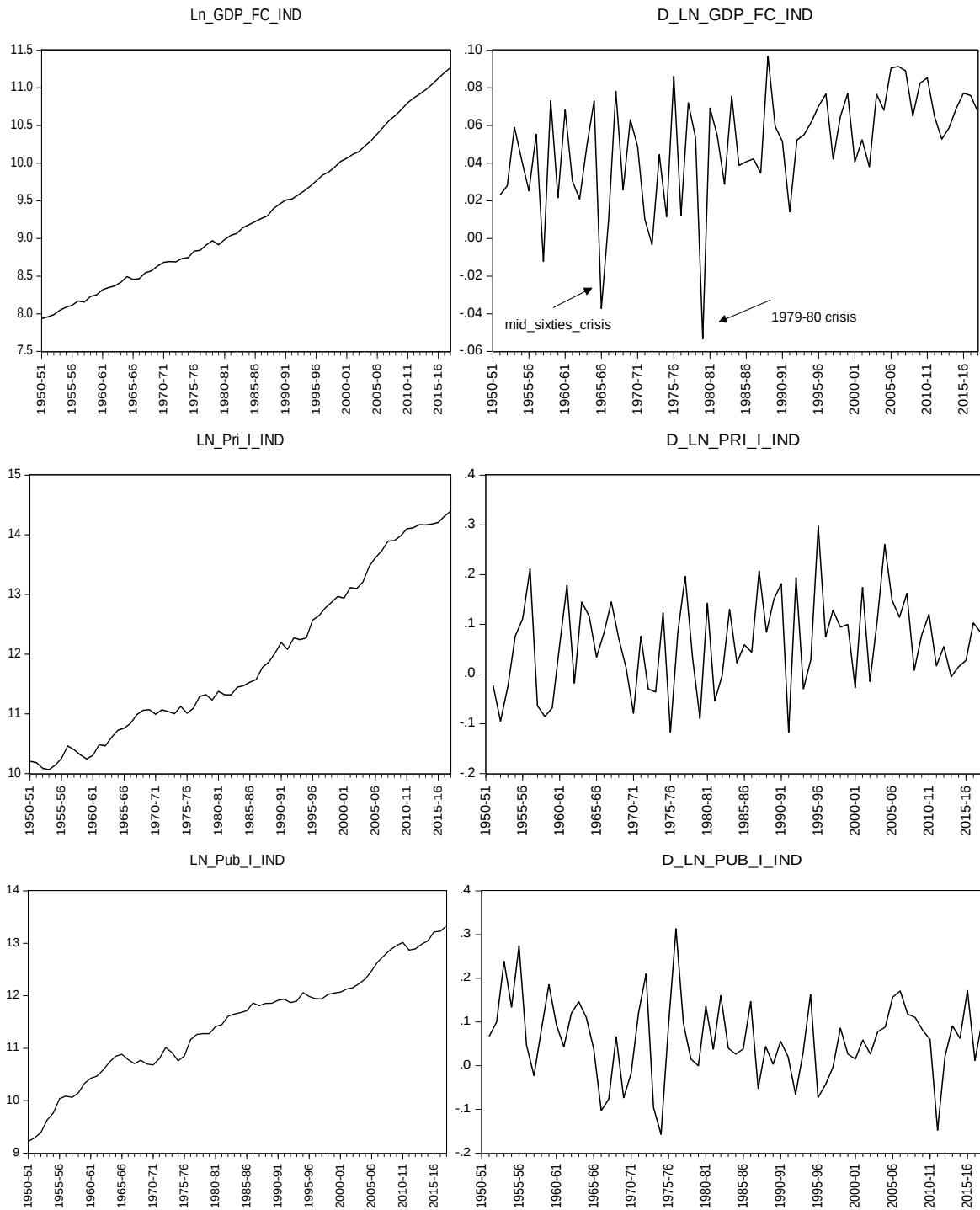
Depreciation Rates δ : Different studies have chosen the depreciation rates for the Indian economy as 5%, as assumed by the IMF working paper (Unel, 2003). According to this study, the rationale for this rate is based on the average age of equipment and machinery assets in India, which is about 25 years (National Accounts Statistics- Sources & Methods, 2007) with a corresponding depreciation rate of 7.2%. Moreover, equipment and machinery in the manufacturing sector is assumed to be about 60% of the total capital stock; thus, the average rate of depreciation would be around 5%.

However, and after all, the capital stock variables of total, private, and public for the Indian economy showed an incremental increase in which the time series exhibited a high order of integration; $I(2)$. Accordingly, we are using the private and public capital formation in our output model based upon Keynesian assumption of which a decline in the level of investment expenditures will results in deficiencies in physical capital, and thus, holds back the economic growth.

Data Specifications: Before turning to the actual estimation, some issues regarding the data properties have to be illustrated. First, we plot the raw data for GDP, public and private capital formation for India in real logarithmic term at level, and at first difference, to reveal the data density and normality functions (see figure 6.10 and table 6.5). Then, we examine stationarity of the individual series for the three different periods (table 6.6).

From the figure (6.10), it is straightaway obvious that GDP of India, and government and private investment series display a non-stationary trend. There are a few extremely large yearly changes, well above two times their standard deviations, corresponding to different economic crises that hit the Indian economy: the mid-sixties crisis, the oil shocks of 1973 & 1979, the 1991, and 2008 global financial crisis. For the model of Growth (total period), we induce the regression with one -dummy variable corresponding to the critical year of 1972-73 of Indian economy where both the private and the public sector witnessed an extreme change of more than two times their standard deviations along with negative growth rate of (-0.31%).

Figure (6.10) Indian data -main specifications



Source: Author's compilation after application of the E-Views 10 software, 2019.

Table (6.5): India- Large changes in Investment-Spending

sd ($\Delta \ln_Priv_Inv$)		sd ($\Delta \ln_Pub_Inv$)	
0.088		0.080	
$\Delta \ln_Priv_Inv < 2\ sd$		$\Delta \ln_Pub_Inv > 2\ sd$	
1972-73	-0.036	1972-73	+0.203
1978-79	+0.01	$\Delta \ln_Pub_Inv < 2\ sd$	
2008-09	-0.005	1972-73	0.007
		$\Delta \ln_Pub_Inv > 1\ sd$	
		2008-09	0.10

Source: Author's compilation after application of the E-Views 10 software, 2019

Unit Roots Test:

Testing for unit roots or non-stationarity of a time series data is an essential step before running any regression analysis. This step will allow us to avoid misspecification of the test for the three different periods. Results of stationarity tests are presented in table (6.6):

Table (6.6): results of the stationary tests: Level and First difference of the variables

Variables	Name	Type	Logarithmic Level Data		First Log-Difference		Decision
			ADF	PP	ADF	PP	
Total Period: 1950-2013; 63 observation							
Real GDP at Factor Cost, 2004-05:100	GDP_IND	Indog	1.00	1.00	0.00***	0.00***	I(1)
Real investment (Δk) government	Inv_Pub_IND	Indog	0.5479	0.5710	0.00***	0.00***	I(1)
Real investment (Δk) private	Inv_Priv_IND	Indog	0.9987	0.9989	0.0013** *	0.00***	I(1)
Real Export % GDP	Ex_GDP_IN D	Indog	0.9657	0.9680	0.000***	0.000** *	I(1)
Pre-Reform Period: 1950-1991; 41 observation							
Real GDP at Factor Cost, 2004-05:100	GDP_IND	Indog	0.9944	0.999	0.00*	0.00*	I(1)
Real investment (Δk) government	Inv_Pub_IND	Indog	0.1995	0.1200	0.0001*	0.0004*	I(1)
Real investment (Δk) private	Inv_Priv_IND	Indog	0.9971	0.9971	0.000*	0.000*	I(1)
Post-Reform Period: 1992-2018; 23 observation							
Real GDP at Factor Cost, 2004-05:100	GDP_IND	Indog	0.9990	0.9979	0.0166**	0.0166* *	I(1)

Real investment (Δk) government	Inv_Pub_IND	Indog	0.9919	0.9890	0.0040*	0.0040*	I(1)
Real investment (Δk) private	Inv_Priv_IND	Indog	0.5458	0.4588	0.0002*	0.0002*	I(1)

Source: Author's compilation after application of the E-Views 10 software, 2019

* denotes a significance at 1%. The ADF and PP test critical values are consistent, thus the null hypothesis of non-stationary at a level cannot be rejected.

For stationarity test, we used the same techniques applied in the Syrian Model to test; (1) Augmented Dickey Fuller (ADF) and Phillips-Perron test (PP) unit root test, using the E-Views 10.0 default procedure. According to the integration results given in (table: 6.6), all variables are integrated of order one I(1) for the entire period and for the two sub-periods. Thus, it become important to test for co-integration for each model separately. Here we are presenting the results of each growth model corresponding to different periods as we mention earlier.

a. Results Model -1.1; Growth Model for total period 1950-2013

First: Growth Models- IND-total period

Model	label	variable description
Model -1	GDP_IND	Real GDP at factor cost, 2004-05:100
	Inv_Pub_IND	Real Gross Capital formation _government sector
	Inv_Priv_IND	Real Gross Capital formation _ private sector
	Dummy-72/73	Crisis dummy of 1973 (-0.31% GDP growth)

For the total period, we have shown that the variables included in different models are integrated of order one I(1), thus, we apply multivariate co-integration in order to identify the possibility of an existed long-run relation between the variables of interest. However, before running any co-integration analysis, two steps are required: (1) identifying the optimal lag, and (2) testing for the numbers of co-integration vectors using ML method.

In the growth model of India (Model one: equation 1), since the data sample is run over 63 years, we have chosen lag 2 as the optimal lag for VAR model, and thus, we run VECM at lag [see appendix 2, table (1)]. Further, Trace and Max-Eigen value statistics proved that the assumption of an existing one co-integrating vector cannot be rejected [see appendix 2, table 2]. Hence, there is at least one long-term relationship between our three variables; output, private capital stock, and capital stock equation for Indian economy.

In practice, an error correction model (ECM) for Y_t for Indian economy can be written as:

$$\Delta Y_t = B_0 + \underbrace{\sum_{i=1}^p B_i \cdot \Delta(Y_{t-i}) + \sum_{j=1}^q B_j \cdot \Delta(X_{t-j})}_{\text{Short-term dynamics}} + \underbrace{\theta Z_{t-1} + \psi \cdot w}_{\text{error correction term}} + \varepsilon$$

Where $Y: \{\text{Ln_GDP_IND}\}$ at factor cost, $X: \{\text{Ln_Inv_Priv_IND}, \text{Ln_Inv_Pub_IND}\}$, $w: \{\text{Dum_1972-73}\}$ dummy exogenous variables for the year of 1972-73 which capture the impact of oil and drought shocks on that year. The coefficient of ECT: (Z_{t-1}) , θ , is the speed of adjustment.

Long-run estimation

The co-integrating equation at the long-run (normalized on log GDP-IND) is described here. The results reveal that the long-run estimate for real private capital formation and real public capital formation (in a logarithmic form) are positive and highly significant.

Table (6.7) Long-run equation: Normalized Co-integration Coefficients:

variables	Ln_GDP_IND	Ln_Inv_Priv_IND	Ln_Inv_Pub_IND
Co-integration coefficients	1.000	0.557574	0.301837
[t-ratio]		[-11.5805]	[-4.99756]
(Standard error)		(0.04815)	(0.06040)

Source: Author's compilation after application of the E-Views 10 software, 2019.

Ceteris paribus, an increase in real capital formation for both private and public sectors affects GDP significantly in India for the total period. The t-ratios for the included variables is significant at 1 percent level. A one percent increase in the Indian public capital formation increases the GDP by 0.30 %, while a (1%) increase in private capital increases GDP by 0.55%. Thus, in the long run, it appears that public capital formation has lesser impact than the private capital formation on GDP in India.

Through the analysis conducted above, we draw our main conclusion of the existence of a long-run relationship between the GDP of India, public capital and private capital of India, which is statistically significant. Private capital contributes to economic growth greater than public capital. The existence of one long run co-integrating equation and that residual (EC terms) are obtained from it, thus we can look into the short-run adjustment and short-run coefficients.

Short-Run Error Correction Model

As we mentioned before, the coefficient of EC; θ is the speed of adjustment back to the long-run equilibrium between variables, while changes in the included variables in the equation stand for short-run elasticities. In our first model, in the short run, the percentage change in GDP of India stand for ‘dependent’ variable, and EC estimation results are described here expressed in the form of logarithmic differences:

$$Dln_GDP = \alpha + \beta.Dln_Inv_Priv + \gamma.Dln_Inv_Pub + \theta ECT_{t-1} + \mu_t$$

Table (6.8): EC model-1 estimate

		<i>Dln_GDP_IND</i>	p-value
c		0.057	(0.00)
<i>Dln_GDP_IND</i> (-1)		-0.17	(0.18)
DLn_Inv_Priv_IND (-2)	β	0.08**	(0.5)
DLn_Inv_Pub_IND (-1)	γ	0.05***	(0.08)
<i>ECT</i> _{<i>t</i>-1}	θ	-0.1294*	(0.00)
Dummy_1972_73		-0.07*	(0.00)
R-squared		0.29	
Adj. R-squared		0.18	
F-statistic		2.71	(0.01)
Durbin-Watson stat		2.11	
Number of coefficients		30	
Included observations: 60 after adjustments			
Diagnostic test statistics (): P-value			
Serial correlation LM test	1.344229	(0.2205)	
Normality (Jarque-Bera) test	5.30297	(0.319)	
Heteroskedasticity (Breusch-Godfrey-Rao F-stat)	63.14258	(0.577)	

Source: Author’s compilation after application of the E-Views 10 software, 2019.

*significance at 1% level, **significance at 5% level. *** Significance at 10% level.

Both public and private investments make a contribution to Indian economic growth in the short run. The short-run estimate for Inv_Pub of India, in real term, provides that an increase of 1 percent in Inv_Pub in the course of the first year, give a rise in GDP by 5% in the second year, which is statistically significant. While the estimate for private capital in India in real term, suggests that an increase of 1 percent in Inv_Priv in the course of the first year, give a rise in GDP by 8% *after two years* (one year lag was not significant), which is also statistically significant. This supports the Keynesian view of private investment will be stimulated by GDP, which induced by public investment (this result is confirmed when we introduce the GDP in

the private sector equation as well). Seeing that the calculated value of the public capital effect is significant in the following year while for the private investment becomes significant after two years, that is, *the public investment appears to have a bigger role and to be more important in the growth accounting in Syria compared to the private sector in the short run.*

For the EC, as the theory predicts, all variables are correctly signed and significant, giving that a deviation from the long-run GDP by 10 percent in the course of first year is corrected in the second year only by 12 percent. The small value of error correction reflects the fact of policy shift after 1991, and could also reflect the fact that some other variables (not included in the model) could contribute more significantly to the deviation of the GDP in the short run. Moreover, the 1972-72 dummy variable is highly significant, yet negative, giving us an evidence that the oil shock has had a real harm effect on Indian economy.

Finally, EC model is well specified, as none of the diagnostic tests failed [see appendix 2, table (4)]; however, adjusted R-squared is not high enough, reflecting the fact there is an actual break in the time series data (pre and after 1991), but the p-value for the F-stat suggests that the EC model as a whole is statistically significant at the 1 percent level. The Durbin Watson statistics are close to 2, which suggests that there is no first-order autocorrelation in the model. Thus, the equation (1) is efficient and reliable for the entire period, therefore, we can summarize this analysis by saying that private investment in India appears to play a bigger significant role in economic growth than public investment in the long run. We turn now to test whether this relation has changed after the reform.

b. Growth Model: The Effects of Private and Public Investment on India Economy Pre- and Post-1991: Models (1.2) and (1.3)

As noted earlier, the post 1991 had been marked by dramatic decline in the public capital formation in India indicated by Public-Inv/GDP ratio. This moderation is likely to have influenced different economic variables. The purpose of this model is to identify the differential impact of both types of capital on the GDP during planning and during reform period in order to measure the changes (if any) of the two coefficients after reform. To do this analysis, we have divide the entire period into two different sub-periods; (i) pre-reform: 1950-1991, (ii) post-reform: 1992-2013-14. The data is sufficient enough to run two different regressions⁴⁴.

For the pre-reform period, we have used the EC model where the data sample covers 41 years. We ran the unrestricted VAR model with lag (3) at the beginning, and then we had

⁴⁴ This was not possible within the Syrian case in which the data was available only for 40 years.

chosen lag (2) as an optimal lag for VECM model for the pre-reform period, based on SC and AIC criteria, with one co-integration vector [see appendix 2, table (1) and table (2)].

For the post-reform phase, we have choose to use ARDL model as the sample period covers 23 observations only. ARDL establishes bound test of co-integration based on F-statistics (Wald test). In the case of the existence of a single long run relationship in a small sample size, the ARDL error correction representation becomes relatively more efficient [see appendix 2].

$$\Delta Y_t = B_0 + \underbrace{\sum_{i=1}^p B_i \cdot \Delta(Y_{t-i})}_{\text{Short-run}} + \underbrace{\sum_{j=1}^q B_j \cdot \Delta(X_{t-j}) + v1 \cdot Y_{t-1} + v2 \cdot X_{t-1}}_{\text{Long-run}} + \varepsilon$$

Similar to VECM approach, ARDL approach specifies the short-run and the long run-components of the model; however, in comparison to ECM, the error correction term Z_{t-1} is replaced with a one period lag values of all variables included in the system ($v1 \cdot Y_{t-1} + v2 \cdot X_{t-1}$). The optimal lag lengths based on AIC criteria are (0) lag for the regressors and (1) lag for the dependent variable. Thus, we define the model as: ARDL (1, 0, 0); Case 3: Unrestricted Constant and No Trend. The result of Long run Bound Test shows a long run relationship between GDP, Priv_I, Pub_I, in the era of neoliberalism; F-Bound test [see appendix 2, table (1) and table (3)]. The regression results of both models are summarized in table (6.9):

Table (6.9): Long-run & short run coefficients in the two sub-periods

Coefficients	Model (1.2) Pre_Reform: (41.observ)		(Model 1.3): Post_Reform (23. observ)	
Long_Run Coef.				
	Coef.	Standard errors in () & t-statistics in []	Coef.	P-value
Ln_GDP_IND: 1.00				
Inv_Priv_IND	0.478459*	(0.07), [-6.09]	0.514195*	0
Inv_Pub_IND	0.297912*	(0.05), [-5.26]	0.316626*	0.01
Short_Run Coef.				
	Coef.	P-value	Coef.	P-value
ECT (t-1)	0.004	-0.96	-0.169517*	0
Inv_Priv_IND (-1)	0.014288	-0.34	0.08*	0
Inv_Pub_IND (-1)	0.011421	-0.78	0.05*	0.01
R_squared	0.47			
Adj. R_Squared	0.27			
Durbin_Watson stat	2.2		2.03	

F-Statistics (prob)	(0.03)**		(0.00)**	
Diagnostic test statistics (): P-value				
Serial correlation LM test	1.142892	(0.3469)	1.376491	(0.3017)
Normality (Jarque-Bera) test	3.130873	(0.3719)	0.308	(0.8572)
Heteroskedasticity (Breusch-Godfrey-Rao F-stat)	48.31451	(0.9499)	1.154213	(0.764)
Ramsey F-test			0.03	(0.9762)

Source: Author's compilation after application of the E-Views 10 software, 2019.

*significance at 1% level, **significance at 5% level, *** Significance at 10% level.

Table (6.9) shows our estimation of the two models (1.2) and (1.3) corresponding to pre-and-post reform phases. In model (1.2), the estimated points of the effects of private and public capital on GDP in India, in the long run, are (+0.47) and (+0.29) respectively. Positive signs for both type of capitals reflect their role in the development process during planning era, in which both coefficients are significant. However, and surprisingly, the coefficient of private investment is higher than that of public investment- in spite of the general trend of literature concerning the dominant state's role in the economy after independence in India, and the related argument of crowding out effect as well. Further, the private and public investment were affecting the GDP at a 1% significance level- reflecting the importance of both types of investment and the relationship between them (the computed-t for estimated coefficients is statistically significant at 1% probability level (p-value =0.00)).

Not surprisingly, in the liberalization era, private investment became the dominant. The result reveals changes in the slopes of private and public capital for the period of 1992-2013, as compared to the previous period.

- Slope coefficient for the private capital during reform period became (+ 0.51); an increase by 4 points
- Slope coefficient for public capital became (+0.31); an increase by 2 points.

Thus, after 1991, a 1% increase in public capital and private capital led to about 32% and 51% increase in the output, respectively, in the long-run. In spite of declining public investment to GDP ratio after 1991, *its influence had been maintained, remarkably, the same level as in the pre-reform period*. Thus, we can say that the public investment became more efficient after 1991 compared to pre-1991 (in general agreement with the neoclassical); however, the *declined quantum of public capital was expected (through reform policy) to enhance the growth of output in India*. Although the private investment in India has expanded impressively, especially after 2003, as a result of the implementation of reform agenda that strengthened its role, *yet, the net effect of private capital after- reform of (51%) was higher by*

only 4 points, as compared to planning period. The result indicates the importance of the allocation of private investment across sectors from the one hand, and its relation with the public sector on the other hand, especially in the era of reform. However, the data needs to be extended up to the present, to get a better conclusion.

The findings of our regressions imply that the process of reduction in public capital had greatly helped the cause of inducing private capital role. Thus, Indian economy had performed slightly better in reform period with regard to private and public capital. The improvement was reflected in the GDP; the sum of the coefficients after reform ($0.51+0.31=0.82$) > the sum of coefficients pre-reform ($0.29+0.47=0.76$). However, the most important question here: the increase has favored whom?

‘Given the continuing increase of the private investment, mainly in the service sector, public investments may need to be accelerated to fill in for GDP growth in other sectors’.

Further, in the short run, in the post-reform period, public and private investment made a contribution to the Indian economic growth, while the coefficients were not significant in the pre-reform period, which indicates that may other variables not included in the model have a short run impact on the GDP. After 1991, the short-run estimate for real FCF-Pub of India suggested that a 1 percent increase in this variable generated a statistically significant 5 percent increase in GDP, compared to 8% for the private investment.

Short-run:

Second part of table (6.9) shows the EC estimation results for the two models. The estimated result of the model (1.3), which represent the post reform phase, it shows as the theory predicts, all variables are correctly signed and significant, giving that a deviation from the long-run GDP by 10 percent in the course of first year is corrected in the second year by 16 percent, thus, it is evident that the parameters in EC model adjusted in the long run after 1991. In contrast, the estimated results of the model (1.2), which represent the pre-reform phase show that EC is not significant, meaning that there is no adjustment in case of disequilibrium in the long-run for the output among the variables under consideration.

Moreover, both public and private investments make a contribution to Indian economic growth in the short run in the era of reform only. The short-run estimate for Inv_Pub of India, in real term, provides that an increase of 1 percent in Inv_Pub in the course of the first year, give a rise in GDP by 5% in the second year, which is statistically significant. While the estimate for private capital in India in real term, suggests that an increase of 1 percent in Inv_Priv in the course of the first year, give a rise in GDP by 8% within one year lag as well,

which is statistically significant. To ensure the models do not suffer from higher order serial correlation in Indian GDP model, an AR (2) specification was fitted and a Breusch-Godfrey test was performed. The system diagnostics are presented in (table 6.9). It appears that the EC models and ARDL are well specified, as none of the diagnostic tests failed.

Finally, EC and ARDL models are well specified, as none of the diagnostic tests failed as the equations passed the LM test, which is the Lagrange Multiplier test for serial correlation, and Normality test for residuals distributed as χ^2 , and ARCH Engle's Test for Residual Heteroskedasticity [see appendix 2, table (4)]. Having shown the effects of private and public capital on GDP in India during total, and pre- and post- reform periods within Indian economy, we turn now to investigate the relation among private and public capital formation during the corresponding phases.

6.4 Model 2: Impact of Government's Investment on Private Investment in the Pre and Post Reform Periods in India:

Our second objective in this section is to examine the relationship between private and public investment in India in the two sub-periods, utilizing the 1991 policy shift as a breakpoint. The empirical results of the second hypothesis will be presented as the following:

H₀: Private investment had been crowded-out by public investment in the pre-and post- reform periods.

H₁: Public investment played a complementary role to the private investment.

The model includes real gross domestic private capital formation (2004-05 constant price) as the dependent variable, while the independent variables are: the annual data of real gross domestic public capital formation (2004-05 constant price), lending interest rate, and the annual data on domestic credit channeled to the private sector. Changes in the credit reflect the changes in the monetary policy, which reflects positively on investment, and the lower interest rate is the more private investment; lowering the interest rate will lead to an increase in the supply of credit and stimulate investment and thus economic growth.

Private Investment Model- IND pre-and post-reform

Model	label	variable description
Model -2	Inv_Priv_IND	Fixed Capital Formation _Private sector
	Inv_Pub_IND	Fixed Capital Formation _government sector
	Ln_Credit	Domestic Credit to the Private Sector
	RIR	Lending interest rate

However, for the pre-reform period, data on domestic credit and interest rates are available from the year 1970 only. Thus, the test results of the total sample for entire period (1970-2013) are presented first.

a. Total period 1970-2013

We plot the raw data for public and private capital formation, interest rate, and domestic credit for India in real logarithmic term, and then we examine the individual series for the three different periods, to examine the density function of the raw data. The results of the test for unit roots or non-stationary using ADF test during the (1970-2013) is presented in table (6.10).

Table (6.10): results of the stationary tests: Level and First difference of the variables

Variables	Name	Type	Logarithmic Level Data		First Log-Difference		Decision
			ADF	PP	ADF	PP	
Total Period: 1970-2013; 42 observation							
Fixed Capital Formation _Private sector	Inv_Priv_IND	Indog	0.99	0.99	0.00***	0.00***	I(1)
Fixed Capital Formation _government sector	Inv_Pub_IND	Indog	0.96	0.96	0.00***	0.000***	I(1)
Domestic Credit to the Private Sector	Ln_Credit	Indog	0.98	0.97	0.0007***	0.0006***	I(1)
Lending interest rate	RIR	Indog	0.557	0.557	0.000***	0.000***	I(1)

Source: Author's compilation after application of the E-Views 10 software, 2019. *significance at 1% level.

According to the results above of integration of our second model; all variables are integrated to order one I(1) for study period under consideration (1970-2013). Next, we test for the long-run relations within the ARDL model framework. We have chosen to apply ARDL in preference to other models because the interest rate and credit could have an optimal lag of (0), while the public investment may need more than one year to affect the private investment; thus, we could have a differential lag distributed order in this test (distributed lag model).

The optimal number of lags for the variables had been chosen based on (AIC) criterion, and thus, ARDL is shown as (1, 2, 0, 1). The co-integration bound –test model had been calculated within the ARDL. The result showed that there was a co-integration among the variables -even at a 2.5% level (F-statistics>4.89). Table (6.11) shows the long-run, and short-run coefficients of the variables for the entire period (1970-2013).

For our study period, the co-integration evidence has shown that all variables included in the model have the tendency of moving together in the long run. An increase in private capital by 1% is related to an increase in 0.68% in domestic credit and to a 0.04% decrease in the interest rate in the long-run. However, public investment seemed to be unable to affect private investment in the long run for our study period.

In the short run, (second part of table 6.11), EC model results exhibit strong co-integration among the variables where the deviations from the co-integration relationship between public capital, interest rate, domestic credit, and private capital are stationary. Further, as theory predicted, EC is negative and highly significant, giving that a deviation from the long-run GDP by 10 percent in the course of first year is corrected in the second year only by 41 percent. It is evident that, in the long run, and in case of disequilibrium in relationship of private equation, the parameters in EC model are adjusted with a high proportion of (41%).

Table (6.11) estimated Long-run and short-run coefficients for the Second Model

<i>Long-Run coefficients results ARDL (1, 2, 0, 1): p-value 0</i>		
Ln_Inv_Pub_IND	-0.44	(0.14)
RIR	-0.045*	(0.00)
Ln_Credit	0.68*	(0.00)
<i>Short-Run coefficients results ARDL</i>		
<i>ECT_{t-1}</i>	-0.41*	(0.00)
D(Ln_Inv_Pub_IND)	0.42*	(0.01)
RIR	-0.01**	(0.03)
Ln_Credit (-1)	0.28*	(0.00)
F-statistic	4.32	(0.001)
Durbin-Watson stat	1.90	
<i>Diagnostic test statistics 0): P-value</i>		
Serial correlation LM test (Ob-R-Square)	1.756989	(0.41)
Normality (Jarque-Bera) test	0.869300	(0.64)
Heteroskedasticity (Breusch-Godfrey-Rao F-stat	4.289859	(0.75)

Source: Author's compilation after application of the E-Views 10 software, 2019.

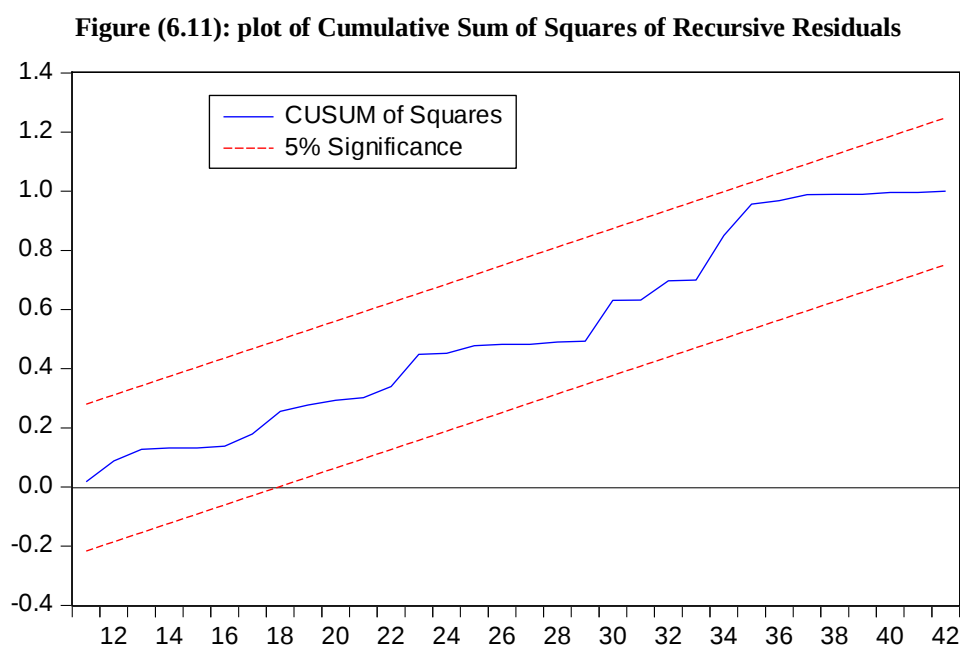
*significance at 1% level, **significance at 5% level. *** Significance at 10% level

Further, the short run coefficients of credit and interest rate are correctly specified and significant at a 1% level, implying the fact that the private investment in India reacted positively to the increase in credit, and negatively to the increase in interest rate. Moreover, in the short-run, public investment has a positive impact on private investment, while in the long-run the impact is absent. An increase of 1 percent in Inv_Pub of India in the course of the first year, give a direct rise in private investment by 0.42% in the second year, which is statistically

significant (table 6.11). Thus, the hypothesis that government investment has a negative relation with private investment is rejected, the positive relation of the coefficient suggests the crowding-in, which is statistically significant.

Finally, EC model in ARDL model is well specified, as none of the diagnostic tests failed [see appendix 2, table (6)].

In order to investigate whether the association among private and public capital formation had changed after reform, it was not possible to divide the data into two sub-period as the sample period is small. Thus, we included a dummy variable (Dum; 1 if year <1991-92, 0 otherwise) in the ARDL equation to capture the policy-shift after 1991. The results show that the dummy variable was not significant and the long run relationship did not change over the period. The estimated model passes graphical evidence (CUSUM of Square test) which indicates that the model is stable, and there is no break(s) in our data sample (figure 6.11). Thus, we can say that the co-integration relation between the variables did not change over time.

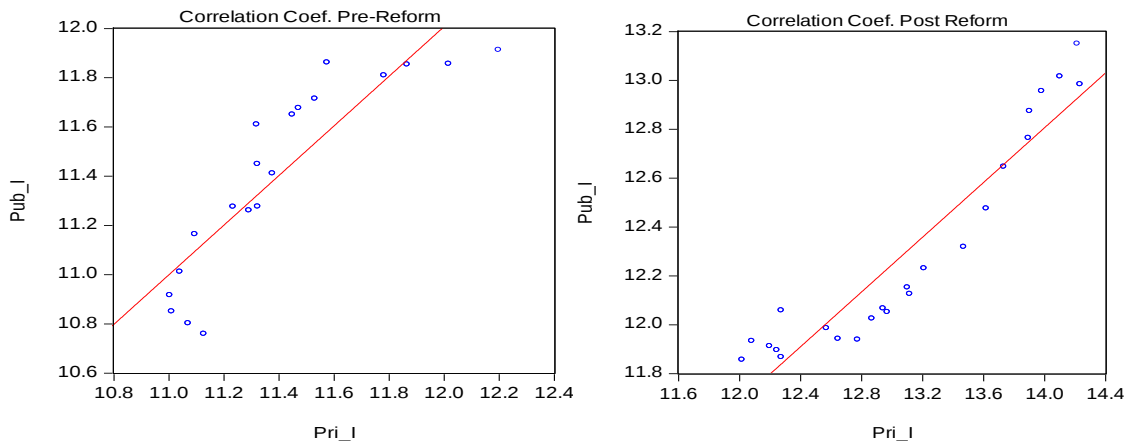


Source: Author's compilation after application of the E-Views 10 software, 2019
The CUSUM of squares line lies within the 5% significant level boundary.

b. Pre and Post Reform Period: Correlation & Regression:

In statistical terms, we use the correlation between private and public investment to denote the association between two variables in the two sub-periods in India. We also assume that the association is linear, which includes an estimation of the finest line which could synopsise the correlation. Figure (5.12) shows the scatter diagrams of the relation between two types of investment in two separate periods.

Figure (6.12): Correlation illustrated by private and public investment in pre & post reform



Source: Author's compilation after application of the E-Views 10 software, 2019

Analysis shows a strong and positive correlation between private capital formation and public capital formation in India in the two periods, and it is highly significant at 1% level. Looking at the scatter plot graphs and regression line in the post-reform period (1992-2013), we see that there is a complete correlation (close to one: 0.94), while the correlation was less close before reform. Yet, it is positive by 0.87 in the pre-reform period.

Table (6.12): Covariance analysis.IND

Covariance Analysis: Ordinary			Covariance Analysis: Ordinary		
Sample: 1970 to 1991-92			Sample: 1992-2013		
Included observations: 21			Included observations: 21		
Correlation			Correlation		
Probability	Ln_Inv_PRIV	Ln_Inv_PRIV			
Ln_Inv_PRIV	1.000000		Ln_Inv_PRIV	1.000000	
	-----			-----	
Ln_Inv_GOV	0.879280	1.000000	Ln_Inv_GOV	0.941063	1.000000
	0.0000	-----		0.0000	-----

Source: Author's compilation after application of the E-Views 10 software, 2019

6.5 Conclusion:

In this section, an empirical attempt has been made to test the behavior of demand factors which could explain the long-term growth in India, through conducting multivariate co-integration tests for Indian data over the period (1950-2013). Through applying long run test, we have found two co-integration vectors which described the growth accounting and mechanism within Indian context. From the demand-side, we have found that the private capital formation is the key determinant of growth in India, followed by the public capital formation.

The empirical estimation showed that public investment appears to have a significant role in the short, as it influenced the growth directly (with a lag of one year), and indirectly through the channel of private investment (in which crowding in effect found to be significant). In contrast, the private investment appears to influence GDP growth with a lag of two years.

The adjustment mechanisms in the short run are supportive of investment-induced growth processes through private and public investment together. These results provide strong evidence to the Keynesian theory that it is the investment behavior determines the extent to which household savings are realized in the form of capital accumulation. Thus, bringing down public capital formation could have a series of negative effects on the Indian economy in the long run.

At this point, one might consider the neoclassical point of view in which an excessive public expenditure, with deficit financing, will lead to inflation and thus restrains the growth. However, in order to address this issue, we conduct a Granger Causality based on Block Exogeneity Wald Test. We run a multivariate time-series regression (VAR) of two variables (the output or the GDP of India and the money supply (Narrow money: M1)) on lags of itself and on lags of each other. Then, we performed a Granger causality test by regressing y (output) on its own lagged values and on lagged values of x (money supply) and test the null hypothesis: H0: M2 does not cause the Output

H1: M2 does cause the Output

The results of the test is presented in table (6.13) which show that (the p-value <6%), and thus the null hypothesis is rejected at 6% level and our conclusion is to be money-supply does 'Granger-cause' output in India. Accordingly, the null hypotheses number (4 and 4.1) were not supported by the statistical tests in the case of Indian economy, and thus, they are rejected, while the alternatives were supported as the public investment did not cause the inflation in India for the study period, and as it did contributed to the growth in the pre and post reform period.

Table (6.13) VAR Granger Causality

Data sample: 1950-2013		
Number of observations: 64		
Dependent variable: D(LN_R_GDP00)		
	Chi-sq	Prob.
Independent variable: D(M2)	5.459578	0.0652
All	5.459578	0.0652

Source: Author's compilation after application of the E-Views 10 software, 2019

In the second model of private investment, we found that private investment positively responded to the expansionary government policy in the short run, while its response was not significant in the long run. Thus, the statistical test did not supported the null hypothesis (no. 5), but it provided an evidence against it.

There are two other main variables that highly affected the private investment decisions in Indian economy; (1) domestic credit expansion, and (2) the lowering of interest rate. We found that after 1991, in spite of declining the ratio of public investment to GDP, *its influence had increased as compared to pre-1991*. Thus, we can say that the public investment became more efficient in the post-1991 phase as compared to pre-1991 phase (in general agreement with the neoclassical); however, the *declined quantum of public capital was expected (through reform policy) to enhance the growth of output in India*.

Although the private investment in India has expanded impressively, especially after 2003, as a result of the implementation of reform agenda that strengthened its role, *yet, the net effect of private capital after- reform of (51%) was higher by only 4 points, as compared to the pre-reform period. The result indicates the importance of the allocation of private investment across sectors from the one hand, and its relation with the public sector on the other hand, especially in the post-reform period. This suggests that the usual analysis relating to the crowding out cannot fit in the pre-reform period. However, the data needs to be extended up to the present, to get a better conclusion*. India's growth is still one of the highest among emerging countries; yet the fact that the ICOR increased for all sectors of the economy, and declined for the service sector only, suggests that there is a role for the state to play in filling the gap via investment in other sectors.

In short, it cannot be overemphasized that the public investment to GDP ratio does constitute an instrument in the government's hand to push the growth and development process. However, the data need to be extended up to the present, and across different sectors of government expenditures, to get a better conclusion.

The most important policy conclusion for our analysis can be summarized as follows: (1) formulating a public investment program, not only in infrastructure, essentially to balance the investment allocations across sectors; (2) promoting the private investment in the agricultural and industrial sectors, rather than focusing on the service sector, since the liberalization aimed at removing barriers of entrance to all sectors, not only the service sector.

CHAPTER VII

Trade Openness and Growth, in Syria & India:

A Comparative Analysis

7.0 Policy Reform: from Development Planning to ‘Washington Consensus’:

Influential studies in the late 1970s and early 1980 were done by Williams College and Oxford University: they pointed out the failure of state intervention in the form of import substitution strategy. The main argument was that ISI model is inflexible, unable to create a response to changes to international economic fortune. In supporting to this view, empirical studies have done by many trade economists like (Balassa, 1978), (Bhagwati, 1987), (Krueger, 1978), in which they established empirical cases, reporting that outward-oriented strategy worked better than import substitution, as the trade liberalization provided great opportunities for a higher growth and a better use of natural resources. They further argued that outward-oriented strategy resulted in a better income redistribution, originated from high levels of exports and welfare, due to the increased accessibility of many products at competitive quality and prices. (Norberg, 2007). And even in imperfect competitive markets, there will be a welfare gain, by lowering the risk of monopolies and oligopolies in the domestic market (B. P. Krugman, 2009).

The theoretical foundations of their proposals emanated from Neo-classical trade theory of ‘comparative advantages’. The theory has implications on gains from the trade (Heckscher - Ohlin - Samuelson), in which any country will gain from trade.

Down to the early 1990s, the conclusion of the ability of openness and markets to create competition and productivity had become widely accepted around the world, in which free trade became a ‘built-in’ force, in the Washington Consensus’s ideology: lowering the countries’ tariff barriers to imports, removing quotes, floating exchange rate, devaluation, etc. will enhance the process of economic development.

Accordingly, trade liberalization became one of the main pillars of economic reforms after 1991 with a growing focus on export-led growth rather than vice versa. The notion of openness enhanced further with the adoption of a common currency in Europe in 1998, the establishment of the North American Free Trade Agreement (NAFTA) in 1993, and the creation of the World Trade Organization (WTO) in 1994.

But in reality, state's role never abandoned in practice. In contrast to the view of Washington Consensus, the NICs continued to recognize the importance of the role of government in bringing the balance between international and domestic markets. The NICs understood that the trade and industrial policies accompanied by active governmental interventions would create prosperity and achieve progress. Essentially, some tools of protection were used to help fledgling exports. Asian tigers diverted from the Neo-classical model in many aspects. NICs model of development has *not* been determined by 'comparative advantages' in which specialization is no longer limited to the overall balance of comparative advantage, since if it was the case, production pattern in South Korea would have remained agriculture as a rice-growing country (Escaith & Inomata, 2011).

Further, the theory failed to explain the two-way relationship between trade and development, composition change of output, and consumption and trade, in East Asia (NICs). What happened in Asia is not merely 'get the price right' (J. E. Stiglitz, 2016). Rather, the relationship between growth and export seems to be one of interdependence rather than unilateral causation.

According to the above set up, major objectives of chapter (8) is to assess the relevance of neoclassical reform, in particular, trade openness, in Syria and India separately. The two countries are different in many aspects; however, both followed substantial trade liberalization measures after a debt crisis, in order to achieve high growth and development. Our analysis has been confined to examine the trade policies in pre and post-reform periods and their implementation. Among others, many studies assert significant and strong effects of trade openness on growth performance (World Bank, 1987), (Tang, 1992), (Roy et al., n.d.), (Panagariya, 2004), (B. Raj, 1998), (Naidu, Cavusgil, Murthy, & Sarkar, 1997); (Benjamin, 1994); (Sachs & Warner, 1995); (Frankel, Jeffrey A. Romer, 1999); (Edwards, 1998). These studies did not directly address the trade policies implemented, but in general, they found a strong correlation between growth and degree of 'openness of trade'. The question leaves open on how one can precisely measure those policies.

In this chapter, we do some empirical analysis of the role of trade in economics to examine the export share of GDP as a proxy of openness contribution to the growth as suggested by neoclassical theory.

Measures of Trade Openness:

There are many measures of trade openness in any country, table (7.1) presenting the main three measures, in which different studies used different proxy of degree of openness in

the growth model. Balassa (1978); Maizels (1968); Tyler (1981); Ram (1985) used the aggregate production function approach to capture the correlations between income and degree of openness (measured in terms of the sum of (export and import) to GDP) as explanatory variables. However, this study did not include imports in openness calculation, since the imports of (raw, intermediate materials, and capital goods) have been taken as supply factors included into the growth accountings. In addition, most of Indian and Syrian industries, in nature, are import-intensive (Mallick, 2002) and (State Planning Commission, Syria 2006), where macroeconomic policies have to keep the position of BOP at an appropriate level in accordance with the foreign exchange reserve. Thus, we incorporate the export share of GDP as a proxy of degree of openness in the growth model.

Table (7.1): The main three measures of trade openness

NO.	Measure	Definition
1	M_i/GDP_i	Import trade intensity; measured as: imports (M) divided by countrs i 's nominal; income (GDP)
2	X_i/GDP_i	Export trade intensity; measured as: exports (X) divided by country i 's GDP
3	$(X+M)_i /GDP$	Trade intensity (TI); measured as exports and imports divided by country i 's GDP

Sources: Jay Squalli and Kenneth Wilson, 2006

We know that private and public investment contributes to growth. However, in the modern world where a country is significantly dependent on external trade (exports and imports), we need to examine it as an additional variable. In order to examine the export contribution to the growth we add the logarithm share of export to GDP to the equation, we can write the modified equation of output in the standard growth accounting framework as:

$$\text{Model 3: } \ln Y = \ln A + \beta. \ln K_p + \eta. \ln K_g + \omega. \ln EX/GDP + \mu_t \quad (3)$$

$\ln EX/GDP$ is the logarithm of export share of GDP. *The export here as a share of GDP is not a production input; it reflects the influence of international factors that on output (from the demand side), which are not captured by GCF.*

In equation (3), the inclusion of gross private capital formation and public investment as opposed to the stock of capital would create a point of entry for aggregate demand factors. Thus, we assume the process of capital accumulation is investment-driven, recognizing saving as a residual adjusts to accommodate the level of investment spending in the equilibrium.

Before we test the model of each country separately, we go through an overview of trade policies in the era of planning and era of Neoliberalism-first to Syria, then to India.

7.1 An Overview of Trade Policies in Syria:

Syrian government in 1970, introduced a new economic policy, particular support to the trade sector by easing some import restrictions. Yet, liberalization policy at that time remained limited compared to Egyptian and Lebanese counterparts. Public sector holds the major part of total imports; excluding military equipment, registered more than 72%, and 79% of total imports in 1976 and 1984, respectively. In the 1970s, the imports growth rate, on average, was 12% annually in which capital good's share of total accounted for more than a quarter during the first phase (compared to 55% of total for intermediate goods). While export showed a negative growth rate for the second half of the 70s except for the years of oil- peak prices in 1979. By the early 1980s, the trade imbalance widened further.

7.1.1 Toward a More Open Economy; Trade liberalization of 1986:

As mentioned in the third chapter, trade liberalization in the second half of 1980s was in a retroactive form. Considerable changes in trade policies had been implemented; gradual dismantling of state monopoly of foreign trade, simplification of the complex system of and ease control on foreign exchange, devaluation of Syrian pound, and some tariffs cut. Further, the list of goods that are allowed for the private sector to import had stretched out. Nevertheless, import licenses remain linked to exports, and trading certain strategic products such as cotton, wheat and sugar, remained subject to the state monopoly for social security considerations. Share of exports to GDP increased from 19% in 1979 to 27% in 1990. The exports to Soviet was about 36 percent of total exports. On the other hand, following the crisis, several restrictions were imposed on imports, in which it show a negative growth, due to import restrictions and austerity measures implemented by the government.

Table (7.2) shows total exports and imports of goods and services in terms of ratio of GDP in Syria at different phases-corresponding to four decades of the study period.

The ratio of total trade to GDP prior liberalization phase of 1991 and post-liberalization somehow equal, reflected the fact that Syrian economy was not closed economy prior to 1991, yet more import-dependent. Export nearly doubled between the 1980s and 1990s decade within ten years, and exactly doubled within twenty years in the 2000 decade, rising from 17.93 to 33.75, indicating the new export-orientation policy of the Syrian government. In contrast, imports kept the same ratio for the entire period as a proportion of GDP. The highest rate registered in the first decade due to a large part of capital goods imports, which required for development process at that time.

The new orientation of foreign trade policies, in the 80s, proved somehow successful. The private sector's contribution to total export, rose to 30 percent in 1986, and more than 37 percent in 1988, and 48 percent in 1989 (in US\$). Further, the gap in Syria's balance of trade was reduced. It was due to a significant cut of public sector imports, which had fallen to some 60 percent of their value in 1986 and had declined by 15 percent in 1988.

Table (7.2): SYR. Share of Ex, Im, and total trade to GDP

YEAR	EX/GDP	IM/GDP	T/GDP	GDP growth rate	Export Contribution to growth
1970-80	23.27	46.69	69.97	5.96	0.38
1981-90	17.93	39.34	57.28		0.38
1991-00	31.3	34.87	66.20	5.52	0.27
2001-10	33.75	35.86	69.61		-1.18
1970-2010	26.49	39.37	65.87	5.74	-0.03

Source: Central Bureau of Statistics, Syria. Various issues

However, it was not until 2000, when the process of structural reforms within a framework of the so-called ‘Strategic Program for Modernization and Development’ took place, in which the pace of economic liberalization had been accelerated and became a more explicit objective of the Syrian government.

7.1.2 Pre-Conflict Syrian Economy; a Glance at Trade Sector 2000-2010:

The shift of trade policy toward liberalization to accelerate structural reforms was clear after 2000. Syria's reform policies agenda and IMF since emphasized trade and trade-related reforms in anticipation of Syria's post-oil outlook, through expanding and diversify the production and export base of the economy. A breakthrough had been achieved in September 2004 with the Syria/EU Association Agreement put into action⁴⁵. The reforms’ overall objective was to strengthen Syria’s competitiveness in export markets away from oil⁴⁶. For that, reform policies should be aimed at export promoting, simplifying trade procedure, and establishing an incentive program for export. Moreover, a system of an effective trade legislation and facilitation arrangement should introduce to reduce costs and improve Syrian exports. The system includes strengthening of both; customs administration, Syria’s export credit system, export processing zones.

⁴⁵ The draft Agreement includes provisions of all trade-related facilitation and trade dispute settlement mechanisms and tariff dismantlement on agricultural products.

⁴⁶ Strengthening Syria’s Competitiveness in Export Markets is the third priority of reforms since it considers one of the main constraints to growth.

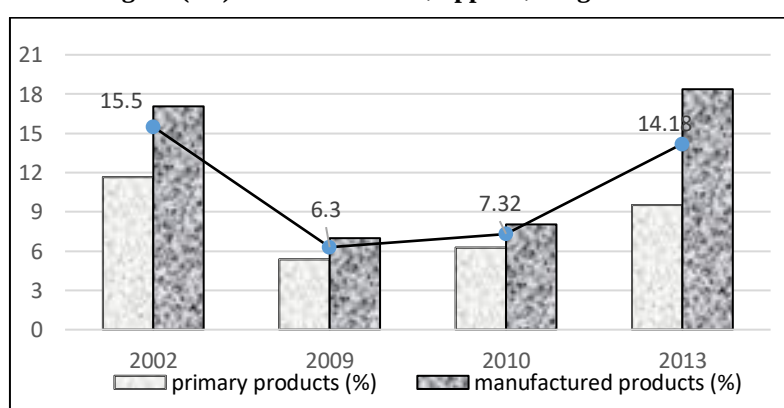
Over the decade of 2000-10, Syria promoted its integration into the world economy and made substantial progress in the context of bilateral, regional, and international trade agreements. A free-trade agreement had been signed with Turkey in 2007, while the provisions of the trade agreement under the Greater Arab Free Trade Area GAFTA have been fully phased in as scheduled in early 2005. Preferential trade agreement PTA with Iran and Free Trade Agreement with Iran was signed in 2009⁴⁷. Syria also applied for WTO membership in 2001; however, the application was halt due to the opposition of the US. Further, Syria signed many international agreements related to Intellectual Property Protection and Settlement of trade and investment disputes. In parallel, trade union and export development funds were established, and many laws and legislations were issued like the new Customs Law.

Trade Tariff:

Harmonized System of Tariffs has been introduced, and import duties and tariffs lowered significantly from 255% to 65% (official data). In weighted mean, the tariff rate dropped to half by 2009 compared to 2002, and completion of another round of tariff reduction; average tariff rate had been reduced from 17% of manufacturing products in 2003 to 8.04% in 2010 (see figure 7.1). The ‘negative list’ which included number of products was reduced substantially, and licensing requirements for the raw materials’ imports were eliminated.

Non-tariff trade barriers and foreign exchange restrictions were removed, and official exchange rates have been reduced, and their level adjusted, with the gradual move towards unified exchange rates.

Figure (7.1) SYR: Tariff rate, applied, weighted mean



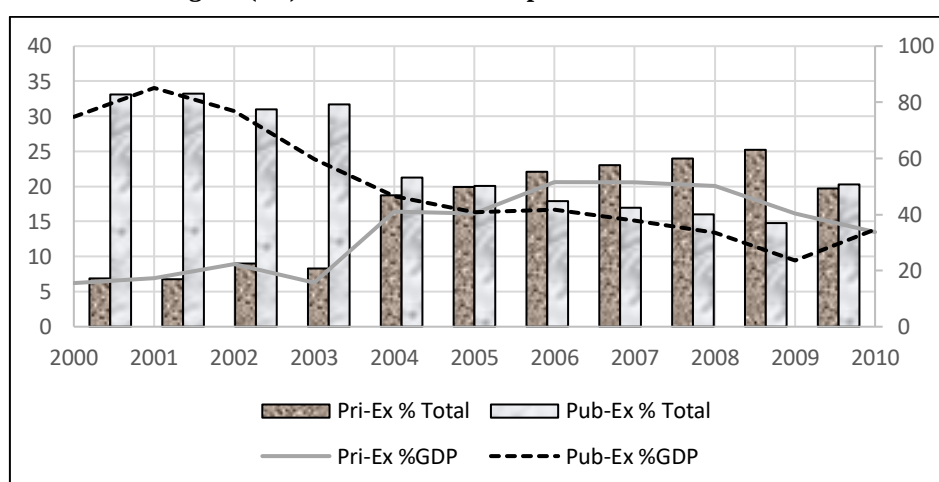
Source: World Bank Data, 2019

⁴⁷Moreover, Turkey, Lebanon, Jordan, and Syria agreed in June 2010 to set up a free trade zone, complete with a visa-free travel regime for their nationals. In addition, Syria has formally begun negotiating a free-trade agreement with South America's powerful Mercosur trade bloc, following the signing of a framework agreement in December 2010.

Private Share in Trade:

The share of private sector in total trade doubled from 2000 to 2004, and increased substantially after that; it constitute 49%, 55%, 57%, 59%, 63%, and 49.2% in 2005, 2006, 2007, 2008, 2009, and 2010 respectively (figure 7.2). It is worth noting that the period of 2001-2003 witnessed the second round of incentives directed to private exporters under ‘oil for food program’ between Syria and Iraq. The program stimulated private sector and opened Iraqi market to Syrian goods. The value of private-sector exports increased significantly from \$894 million in 2001 to \$1.547 million in 2002.

Figure (7.2) Private & Public Exports % of total & GDP



Source: Central Bureau of Statistics, Syria. Various issues

However, since the main important reason for liberalization at that time was the oil-depleting, it is quite important to understand the structure of Syria's Exports. After 2000, the structure of Syrian exports has been undergone significant changes; exports of non-oil output rose from 12.4 in 2003 to 25.68 in 2007. The manufacturing exports' share of total doubled from 21.2 in 2005 to 48.3 in 2009. The recent performance demonstrates that Syria has diversified its exports from 150 numbers of exported products in 2003 to 162 in 2007.

Over the past decade, Syrian economy has achieved remarkable gains, taking the advantages from trade liberalizations, FTAs, and the good economic conditions in Gulf region. Trade benefited from the high demand under the agreement of Arab Free Trade and EU-Association. Although the average growth rate of export registered 3.04 annually from 2000 to 2010, *its contribution to GDP growth post-2000 was negative on average -1.18*, despite all of the liberalization measures that took place at that period. This required more micro-level studies and to sample survey in the context of adjusted imports and exports of non-oil production.

7.1.3 Model Result-3: Export Model:

In this section, the empirical results of the last model are presented (equation 3). The model includes GDP (at market price), private and public capital formation (all in real term, 2000: 100). The econometric applications are necessarily driven by economic theories; thus, real exports at constant (2000) prices as a share of GDP have been included in the analysis, which reflects the degree of openness of Syrian economy.

Table (7.3): Growth Model-3 with export. SYR

Model	label	variable description
Model -3	GDP_SYR	Real GDP at market prices, 2000:100
	GOV_INV_SYR	Real Capital Formation _government sector
	PRIV_INV_SYR	Real Capital Formation _Private sector
	EX/GDP_SYR	Share of export Syria to GDP

We showed previously that the variables included in this model are all integrated of order one I(1) [see chapter 5, table (5.4)]. Thus, a multivariate co-integration test was identified. We start with a VAR representation to identify the optimal lag length using AIC, SC, HQ. The results show lag (1) as the optimal lag selected by the three criteria; hence, we estimate our VECM on lag (0). Then, Johansen method is applied; both maximum eigenvalue and the trace statistic indicate one co-integration equation [See appendix 1, tables (4) and (5)]. The co-integrating equation at the long-run (normalized on log GDP-SYR) is described here. The results reveal that the long-run estimate for all variables are positive and highly significant (table 7.4).

Table (7.4) Long-run equation: Normalized Co-integration Coefficients:

variables	Ln_R_GDP_SYR	Ln_NCF_GOV_SYR	Ln_NCF_PRIV_SY R	Ln_EX/GDP
Co-integration coef.	1.000	+0.362638	+0.302525	+0.766650
[t-ratio]		[-3.36540]	[-4.13026]	[-6.20398]
(Standard error)		(0.10775)	(0.08777)	(0.12357)

Source: Author's compilation after application of the E-Views 10 software, 2019.

The coefficients of private investment and public investment the output are positive of 36% and 30% respectively, and significant. Moreover, the coefficient of exports is significant as well, and more than the sum of the other two coefficients, indicating that export is the key for Syrian economic growth in the long-term.

The coefficients of the error correction term of GDP (table 7.5) is correctly specified and significant; government investment and export are significant; however, the private investment coefficient is not significant. *These results show that giving a deviation from the long-run GDP by 10 percent in the course of first year is corrected in the second year only by 22 percent; it is the change of export or/and public investment, rather than private investment, will be the driving force of bringing the model system back from disequilibrium.*

Table (7.5): EC model-2 estimate: D(Ln_R_GDP_SYR)

ECT_{t-1}	-0.225344*	(0.00)
c	0.056*	(0.00)
R-squared	0.32	
Adj. R-squared	0.27	
F-statistic	5.89	(0.002)
Durbin-Watson stat	2.6	
Number of Coefficients	12	

ECT_{t-1}	GOV-INV	PRIV_INV	EXPORT
-0.225344*	-0.344251*	-0.097	0.448*

Source: Author's compilation after application of the E-Views 10 software, 2019.

*significance at 1% level, **significance at 5% level. ***significance at 10% level.

In this context, we need to know if the export could be excluded from the long run co-integration equation within the Syrian context or not. To do so, we can impose some restrictions in the co-integration analysis, in order to test the assumption of: '*export is weakly exogenous*' and thus has no influence on the output in the long run. In other words, openness is not necessary benefited the growth in Syria. Having obtained the co-integrating relation, we do impose zero-restrictions on the adjustment coefficient of export. Restriction are denoted as $\alpha_{(1,1)} = 1, \beta_{(4,1)} = 0$. The Likelihood Ratio (LR) test statistic for testing the four β with one α restriction is distributed as $\chi^2 = 9.7917$ [0.001], which is rejected (p-value <5%). This implies that *export is not weakly exogenous and has influenced the output in the long run in Syria*. In other words, there is some form of export-led in Syria. Syria main export is oil; however, due to structural breaks and a lack of data – it is very difficult to estimate the elasticity of different export items (oil and non-oil export) with regard to output.

Another restriction has been imposed on private investment, restriction denoted as $\alpha_{(1,1)} = 1, \beta_{(3,1)} = 0$. The Likelihood Ratio (LR) test statistic for testing the third β with one α restriction is distributed as $\chi^2 = 0.1317$ [0.716], which is accepted (p-value >5%). This implies that private investment is weakly exogenous and has not influenced the output in the long run in Syria. In contrast, public investment is not weakly exogenous and has influenced the long-run output in Syria; $\chi^2 = 4.798$ [0.02847], which is rejected (p-value <5%).

Table (7.6): Co-integration Restrictions:

Cointegration Restrictions:	Chi-square(1)	Probability
export=0	9.791756	0.001753*
A(1,1)=1, B(4,1)=0		
private investment =0	0.131710	0.716666
A(1,1)=1, B(3,1)=0		
public investment=0	4.798851	0.028479***
A(1,1)=1, B(2,1)=0		

Source: Author's compilation after application of the E-Views 10 software, 2019.

*significance at 1% level, **significance at 5% level. ***significance at 10% level.

To conclude this section, we draw the following inferences: *in the third mode, when we include export to the output equation*, we found that export is the key factor for the Syrian economic growth in the long –term, and it exceeds the importance of private and public capital together. The dilemma, like other oil-produced countries, arose from the fact that Syria's exports mainly of crude oil; oil-exports solely constitute half of total Syrian exports. In 2003, exports and imports of Syria were each equivalents to almost 40% of GDP, in which share of non-oil export in GDP is 12.4%. Both petroleum and cotton exports accounted for 64 percent of total exports in Syria. Due to a lack of data – it is very difficult to estimate the elasticity of different export items (oil and non-oil export) with regard to output. For a proper analysis, more work has to be done to disaggregate the data in an appropriate way. This will keep this question open for further analysis.

Finally, by performing Weak Exogeneity Test, within the restricted model, in contrast to the export and public investment who are doing the full adjustment in the long-run, we have shown that private investment's role in adjustment mechanism is absent within Syrian economy. Thus, it becomes essential to increase private investment and change its distribution across sectors away from the less to more productive areas in Syria.

7.2 An Overview of Trade Policies in India:

After independence, India's foreign trade policy was highly restrictive and central to the growth strategy. Regulation of the balance of payments became a central issue of the government, which introduced explicit restrictions on foreign exchange rate accompanied by comprehensive import controls-introduced with the second FYPs following a severe balance of payments crisis in 1957. As an extension of commanding heights, the Indian government imposed quantitative restrictions on imports following the ISI development strategy. By the late 1970s, there was a partial liberalization phase due to an accumulation of foreign-exchange reserves raised from good export and remittances from Middle East region (Joshi & Little). Liberalization process initiated in 1976 was more substantial and steady during the 1980s, according to (Pursell, 1992), the Open General License (OGL) list covered 30% of total imports. Rajiv Gandhi government took the first steps towards trade liberalization by easing some restrictions of the licensing regime, especially for capital goods, reducing import quotas, and allocating more funds in science and technology. However, in 1991, the government launched a deeper and systematic liberalization in the face of BOP as recommended by the IMF

7.2.1 Towards an Open Economy:

In 1991, India adopted a broad but gradual approach to liberalization (compared to other countries), in which major measures related to the external sector were put in place in (1993) by the High-Level Committee on Balance of Payments, with major trade reform, FDI liberalization, and financial sector reform.

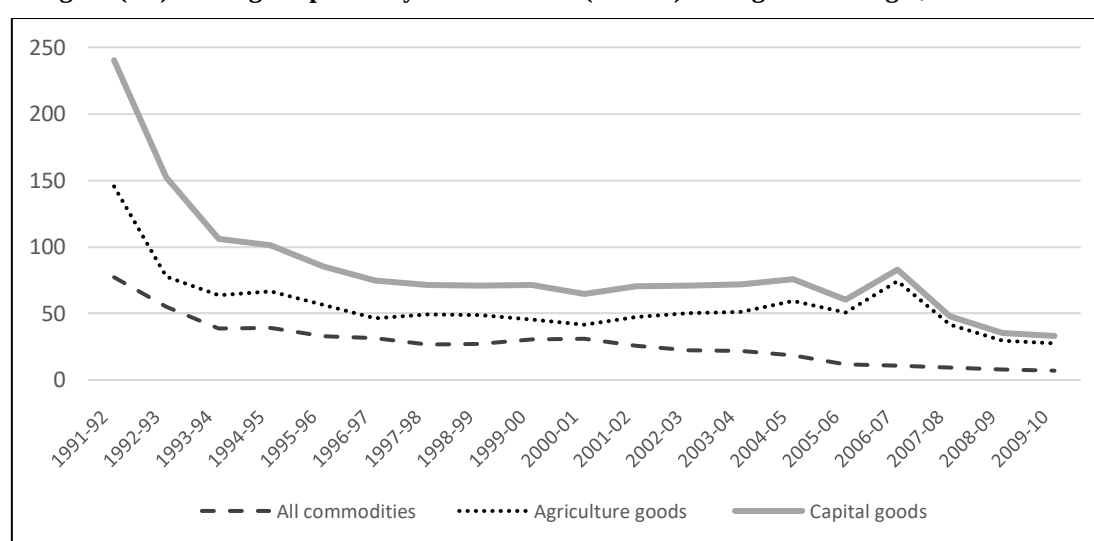
The most important step was the abandonment of the ISI model, in which: (1) Non-tariff barriers (NTBs) was phased out from all tradable except consumer goods; (2) the quantitative restriction on import of capital goods and intermediate goods was also removed as a pre-condition of triggering productivity and growth of the industrial sector; (3) substantial decrease in trade tariff; and (4) trade Practices Act (MRTP) in which the government reduced restrictions on trade monopolies, etc.

Trade Tariffs:

Trade reform package encompassed a steady relief in tariff rates, removal of the quantitative restriction, and institutional arrangements, including simplification of procedures (Chairman: Raja J. Chelliah). Enormous steps have been taken to promote exports, where EXIM policies were a roadmap for developing international trade on a flexible base to follow

the dynamic changes in foreign trade. The maximum import duty level, before the 1990s, registered more than 300 percent on specific items (RBI); however, the weighted average of tariff rates after 1991 of all commodities declined steadily since the 1991 liberalization measures (figure 7.3). However, tariff reductions have been confined to non-agricultural, while agriculture tariffs remain modest (as at most countries). The import duty rate on non-agricultural products has been reduced gradually in 1991-92 of 150% to 25% by 2003-04. And tariffs on capital goods sector brought down significantly from 94.8 in 1991-92 to 5.6 in 2009-10.

Figure (7.3): average import duty rates in India (BASIC) - Weighted averages, 1991-92 to 2009-10



Source: Planning commission, India

Liberalization was not only on goods but on services as well. Since 1991, progress has been made toward facilitating private-sector participation, including foreign investors, and insurance liberalized in 1999 under the Insurance Regulatory and Development Authority (IRDA) Bill. These changes have brought about a remarkable increase in the openness of the economy; while it was unilaterally cut ‘applied’ tariffs after 1991, it reduced its bound tariffs much less; and in services was far greater de facto than de jure (Joshi, 2016).

The trade-liberalization program initiated at the beginning of the last decade of the twentieth century following the commitments of India to WTO was comprehensive but at a gradual pace. Trade openness represented a pre-condition for medium and long term structural changes (Vision of government reform). The overall objective was to create competitive markets, stimulate the private sector in investment, especially in industries (Charan D. Wadhava).

Quantitative Restrictions:

The capital and intermediary goods' quantitative restrictions (QRs) were fully removed, along with a gradual cut of custom duties on most industries. The balance QRs on 715 items were removed on March 31, 2001 (RBI, 2004). However, the policy thrust on export refined by introducing a scheme of Export Processing Zones (EPZs) and Special Economic Zones (SEZs), The Export Oriented Units (EOUs) Scheme, and establishing parks for Software Technology, in order to promote IT-related exports, etc.

Going beyond trade reforms, India moved to full convertibility on current account in August 1994 by liberalizing various transactions relating to merchandise trade and invisible⁴⁸.

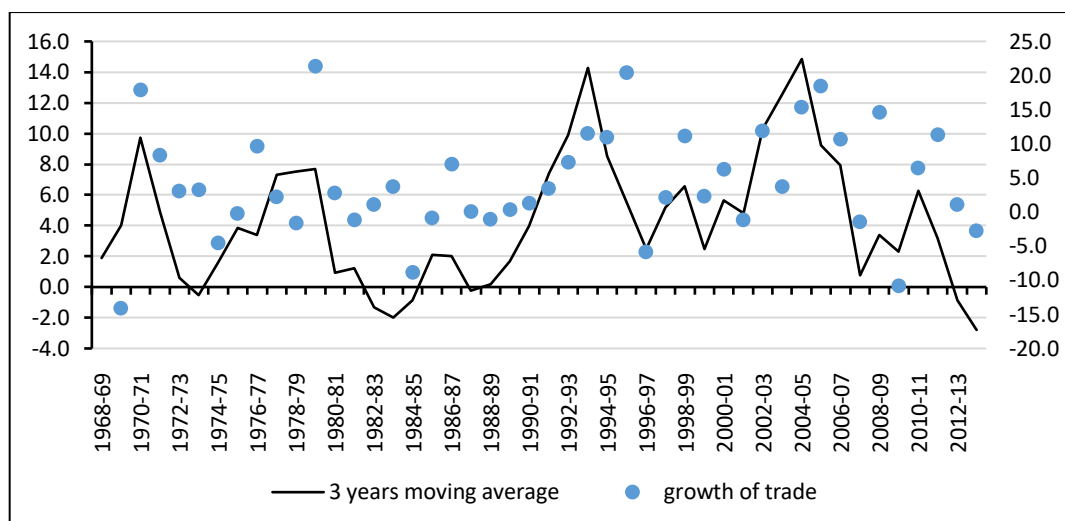
7.2.2 Average IM & EX share of GDP during the Period Study-US\$ Current:

In the post-reform period, the government of India focused much more on open trade and tariff reduction along with considerable relaxation of import controls on capital goods. The (FTP) foreign Trade Policy of 2009, 2014, determined a 15% annual growth of export as a target, with an objective to achieve an export value of US\$200 billion by March 2011 (Economic Survey, 2009 and 2010).

After full-fledged reforms, India ranked the 124th among 179 other countries, by 2010, in the Index of Economic Freedom World Rankings. The average import growth in India registered 21.8, 7.2 percent (in US dollar terms) during the 1970s, 1980s, respectively, with an increase to 11.6 percent during the 1990s (reflecting the strong capital goods imports during the period). The second decade of liberalization, the 2000s, export grew by 17% on average - registering an increase of 6.2 points from the previous decade. Thus, on the whole, between pre and post reforms, exports and imports growth rate, together, shifted by 4.9 points. The improvement followed trade liberalization, it indicate that openness could be correlated with growth.

⁴⁸This has been in consonance with the global trend. Out of 186 IMF member countries, 152 countries had accepted obligations under Article VIII of the IMF, according to which “no member shall, without the approval of the Fund, impose restrictions on the making of payments and transfers for current international transactions”.

Figure (7.4): IND. Growth of Trade (EX+IM)



Source: RBI & Planning commission, India

Table (7.7) shows the total export and import of goods and services in terms of share of GDP at different years during the pre- and post-reform phases. Exports share of GDP was less than 5 percent in 1970, exports nearly doubled between 1990 and 2000 within ten years, and troubled within twenty years in 2008, rising from 7.32 to 23.73, indicating to the degree of openness of India and to the new export-orientation policy. Similarly, imports rise was significant as a proportion of GDP; within two decades it increased from 8.7 in 1992 to 23.6 in 2008. Thus, the trade reform is apparent in the form of high degree of trade openness; within a decade, total goods and services trade share of GDP doubled to 47.33% from 27%. The contribution of exports to GDP growth during the 1990s (6.1%) was modest on average of 15.41% only, despite the high average growth of export (11.6%).

Table (7.7): share of Ex, Im, and total trade in GDP

YEAR	EX/GDP	IM/GDP	T/GDP
1970-71	4.46	5.07	9.53
1980-81	7	7.39	14.39
1992-93	7.32	8.79	16.11
2000-01	12.63	15.24	27.87
2008-09	23.73	23.6	47.33

Source: RBI & Planning commission, India

7.2.3 Model Result-3: Impact of Trade Openness on Economic Growth in India:

In this section, the empirical results of the last model are presented. Similar to the Syrian model, we include the export as a share of GDP to the long-run equation. This will allow testing whether export had influenced economic growth (reflecting the degree of openness) within Indian economy. Thus, derive the empirical relationship among the public and private investment, exports, and the output within Indian context.

Table (7.8) Growth Models-3. IND

Model	label	variable description
Model -3	GDP_IND	Real GDP at factor cost, 2004-05:100
	FCF_Pri_IND	Real Capital Formation _government sector
	FCF_Pub_IND	Real Capital Formation _Private sector
	Ex/GDP_IND	Share of export to GDP _India

After 1991, major economic policy strategy advocates openness to the economy as the export would play the engine role in the growth process following export-led strategy. This means the relationship between export and output running from the former to the later. However, this relation seems to be interdependence rather than unilateral causation.

We showed previously that the variables included in this model are all integrated of order one I(1) [see chapter 6, table (6.6)]. We start with a VAR representation to identify the optimal lag length using AIC, SC, HQ. Then, Johansen method is applied [see appendix 2, table (7)]. We estimate our VECM at lag (1). We have found two co-integration vectors for output and private investment [see appendix 2, table (8)]. However, our main purpose is to test the openness' impact on GDP (measured by export share of GDP). Table (7.9) shows the long-run co-integration normalized coefficients of public investment and export with respect to the output in India. The coefficients are positive and significant of 0.57% and 1.2% respectively.

Table (7.9) the Johansen Method: Normalized β Co-integration vectors:

variables	GDP_IND	FCF_Pri_IND	FCF_Pub_IND	Ex/GDP_IND
Co-integration coefficients	1.000	0.000	+0.579220***	+1.276727
[t-ratio]		[]	[-4.36750]	[-5.78309]
(Standard error)		()	(0.132662)	(0.22077)

Co-integration coefficients	0.000	1.000	+0.385161***	+2.205665
[t-ratio]		[]	[-2.17109]	[-7.46874]
(Standard error)		()	(0.17740)	(0.29532)

Source: Author's compilation after application of the E-Views 10 software, 2019. ***significance at 1% level, **significance at 5% level. * Significance at 10% level.

Now we have to test the hypotheses about the co-integration vectors by identifying each one. Since we have two long-term equilibrium relationship, one is related to the GDP and the second related to the private investment.

The first long-term equilibrium is: $\beta_1 = \{b_{(1,1)}, b_{(1,2)}, b_{(1,3)}, b_{(1,4)}\}$

The second long-term equilibrium is: $\beta_2 = \{b_{(2,1)}, b_{(2,2)}, b_{(2,3)}, b_{(2,4)}\}$

The following restrictions have imposed to reach the exact identifications:

$\beta_1 = \{1, b_{(1,2)}, b_{(1,3)}, 0\}$ and;

$\beta_2 = \{0, 1, b_{(2,3)}, b_{(2,4)}\}$

In this context, we need to know if the export could be excluded from the long run co-integration equation within the Indian context or not. To do so, we can impose some restrictions in the co-integration analysis, in order to test the assumption of: '**export is weakly exogenous**' and thus has no influence on the output in the long run. In other words, openness is not necessary benefited the growth in India.

The restriction on β_1 is our concern, which represents the restrictions on the output. For exact identification, we impose $b_{(1,1)} = 1$, and $b_{(1,4)} = 0$. This is because we are mainly interested in the effect of exports on GDP. In other words, we are trying to test the hypothesis of exports as a weak exogenous component and have not influenced the output in India for the entire period from 1950 to 2013. The theoretical restriction on exports determines whether openness and liberalization, especially after 1991, do enter the co-integration relationship of GDP, private and public capital.

The likelihood ratio LR test statistic for testing the two restrictions on b with the a_4 is distributed as $\chi^2(10) = 0.857167 [0.354533]$, which is (p -value: 35% > 5%) cannot be rejected (accepted). This means that exports in India has not influenced the output in the long-run. In other words, the export can be excluded from the long-run co-integration relationships between the output, private, and public investment.

The following restricted co-integration relation of output is obtained:

$$\text{Ln_GDP_IND} = 0.57 * \text{Priv_Inv} + 0.38 * \text{Pub_Inv}$$

The coefficients of private investment and public investment concerning the output are highly significant and equal to (0.57, and 0.38 respectively). And the export coefficient in the output equation is not significant, which indicates that export is not crucial factor in the growth process within Indian economy in the long -term. The coefficients of the error correction term of GDP (table 7.10) is correctly specified and significant at 1% level. *These results show that giving a deviation from the long-run GDP by 10 percent in the course of first year is corrected in the second year only by 7 percent; it is the change of private and /or public investment, rather than export, will be the driving force of bringing the model system back from disequilibrium.*

However, the table also show an important results that in the short run, within a year, none of the included variables (public and private capital, and export) are significant to drive changes in output, this means that at the short-run, there is another factor (s) driving the output not included in the model.

Table (7.10): EC model-3 estimate

		<i>Dln_GDP_IND</i>	p-value
c		0.05	(0.00)
<i>Dln_GDP_IND (-1)</i>		-0.123	(0.27)
DLn_FCF_PRIV_IND(-1)	β	0.005	(0.87)
DLn_FCF_Pub_IND(-1)	Υ	0.004	(0.90)
DLn_Ex/GDP_IND(-1)	ν	0.04*	(0.10)
<i>ECT_{t-1}</i>	θ	-0.072487***	(0.00)
Dummy_1979		-0.10 ***	(0.00)
R-squared		0.49	
Adj. R-squared		0.43	
F-statistic		8.27	(0.000)
Durbin-Watson stat		1.99	

Source: Author's compilation after application of the E-Views 10 software, 2019.

*significance at 10% level, **significance at 5% level. ***significance at 1% level.

To conclude on this section: *in the third mode, when we include export to the output equation*, we found that export is an additional factor affects the growth process in the long-term within Indian economy. However, export found to be weakly exogenous *and can be*

excluded from the long-run co-integration relationships among the output, private and public investment. Thus, the Indian economy is a domestic demand-driven with investment playing a key role in the growth dynamics and medium-term growth prospects (J. Raj et al., 2018), while export liberalization, especially after 1991, does enter the co-integration relationship of GDP. India's main export is services; thus, for a proper analysis, more work has to be done to disaggregate the data into goods export and service export. This will keep this question open for further analysis.

In both countries, India and Syria, trade openness has led to economic growth in the long run. Yet, the openness of trade is such an important factor in Syria compared to that in India.

7.3 Conclusion:

The Import Substitution Industrialization (ISI) model was resorted to by deliberate economic policies in the 1950s and 1960s in India and Syria, as an essential strategy to build up an industrial base to achieve self-reliant and independent economies (Nayyar, 1976). Later, after 1991, both countries shifted their focus outward, where trade liberalization and openness could provide high opportunities for growth and development. This chapter provided a brief analytical overview of some relevant policies of trade in the 'reform' period and their implementation, compared to that during planning in Syria and India. The chapter also provided an empirical assessment of the relevance of the neoclassical trade reform (openness), measured by share of export to GDP as a factors that could influence the output from the demand side in both economies.

Our results support the view that export is a crucial factor in the growth process in the long-term within Syrian economy and exceeds the importance of private and public capital together. The dilemma, like for other oil-produced countries, arose from the fact that Syria's exports mainly of crude oil; oil-exports solely constitute half of the total Syrian exports. In 2003, exports and imports of Syria were each equivalent to almost 40% of GDP, in which share of non-oil export in GDP is 12.4%. Petroleum and cotton export together accounted for 64 percent of the country's total exports. However, there is a need to transform the economy from excessive export dependence to home market-based growth, by boosting investment in industry and agriculture. Otherwise, the economy will be excessively sensitive to external factors, particularly the international oil and gas prices.

The ratio of total trade (sum of export and import) to GDP for Syria in planning phase and post-liberalization phase are more or less equal (around 65%), yet the economy is more import-dependent. The government holds the major part of total import of which, excluding military equipment, its share accounted for around 72, and 80 percent of total imports in 1976 and 1984, respectively (Congress Library). However, the government channeled the oil revenue, prior 1991, into productive areas to enhance development process, where the capital good's imports accounted for more than a quarter during that phase.

Coming to the openness phase, after 1991, there was a shift from a state-dominated trade to private sector dominance. Private sector's share in total trade, which had accounted for 11% of the total in the early 1980s, rose to 30% in early 1990s, and to 63% in 2008, and fall again to 49% in 2010. However, it is important to mention that the period of trade liberalization in the 1990s was linked to a special trade program with the Soviet Union (Pay Program: see chapter three), in which the government strengthened the private sector role, and made considerable changes in trade policies. Furthermore, in 1997, and between 2001 and 2003, the trade policies also was linked to another special program 'barter system': 'Oil for Food' program, signed between Syria and Iraq. The first and second round of the program provided another opportunity the industrialist sector to export Syrian products to a ready market in Iraq. The program stimulated private sector and opened Iraqi market to Syrian goods; the value of private-sector exports increased significantly from \$894 million in 2001 to \$1.547 million in 2002.

The co-integration test confirmed the fact that the export in Syria is the key factor in the growth process in the long -term within Syrian economy and more important than the private public capital. The dilemma is that although expanding and diversifying the production and export base of the economy, was the main driving force of reform, yet share of non-oil export in GDP did not exceed 25% (with a number of 162 of products exported in 2007), and crude oil covered, on average, half of total exports for the entire period of 1970-2010. Further, the index of Syria's ranking in international competitiveness has registered 90.7 in 2008, which means that the private sector could not compete in the international market, and the oil industry still playing a vital role in Syria's economy, generating much-needed foreign exchange covered import bills. Thus, more openness did not contribute to change the structure of the economy from oil-dominates to industrial base-dominates, rather, trade reform enhanced the private sector's share in export in non-competitive products and to a ready market like Former Soviet Union and Iraq, and Lebanon as well.

On this matter, the Indian case stand in stark contrast. India's foreign trade policy is not very important and central to the growth strategy since independence, thanks to large home market. Protection was given to several industries for four decades (Kohli, 2004) under infant industry arguments (Banerjee, 2007). However, after the economic reforms in 1991, everything has changed. It is fully exposed to external competition and its trade openness has also increased. Has it translated into higher growth?

Several scholars argued that India's economy has benefitted from trade liberalization. Several studies such as Sinha D. & Sinha.T (2002); Siddiqui & Iqbal (2005); Levine and Renelt (1992); Panagariya (2004); Naidu, Cavusgil, Murthy, & Sarkar (1997). Our results are in different direction, but in line with Mallick (2002).

The results from the regression analysis suggest that Indian economy is largely domestic demand-driven with investment playing a key role in the growth dynamics and exports have weak link and found no long-run relation from the co-integration analysis. This is not to say that export is not important factor. But certainly not central to the Indian growth process. It is an additional factor to push the horizons as it happened during 2004-08 when global trade expanded, it helped India to clock the highest rates of growth.

The experience of India with trade-liberalization effects on growth is marginal. Given the fact that the invisible (IT) exports have a greater share in the overall exports, the liberalization pushed by IMF, and World Bank and Washington, have led India to concede more its markets while creating disproportionately less export markets. That's why imports have increased more than exports and caused greater external debt and current account deficit problems. Over and above, as argued by Rakshit (2009), service export is highly volatile in nature, and that increased income from exports of services had not properly linked to meet India's requirements of consumption and investment.

We argue that openness has not necessarily benefited the growth in India while in Syria it did (which is mainly oil), Thus, (in Syria and India) an adequate protection to some industries with a proper state intervention (based on the experience in NICs), is required against external shocks emanating from openness, mainly those high labour-intensive to ensure losses will be outweighed by gains wherever possible. Changing trade patterns is very important in India and Syria to shift from service and oil export, which requires continuous changes- balance between state and market.

CHAPTER VIII

Conclusions

8.1 A Prelude:

The experiences of developing countries after WWII brought a considerable attention to the theory of state and market, in terms of macroeconomics, development economic theory, trade theory, and public finance, where the interaction between both sides has to be analyzed in a specific international and domestic socio-historical context. This study focused, primarily, on understanding the growth story of Syria after independence, with an extension of a comparative context, in terms of policy similarities, to India. It considered the shift of development strategy from state-led toward the market-led in both economies, and contrasted the economic performance during the planning era to the reform era in each country separately.

We tried to understand the achievements and limitations and the underlying factors of each country's development course. Also, the comparison dealt with the two countries' respective stance in the wake of the late 1980s crisis. The study identified significant factors, both exogenous and endogenous, behind the two countries' decision to resort to 'reform' in 1991, after the collapse of the Soviet Union. The investigation included comparisons of the development path after adopting market-oriented reform where the neo-liberal school was the dominant, with the planning period. We also inquired the trade 'reform' policies and the role of openness in stimulating economic growth in both countries.

To investigate the role of state in economic growth, we addressed the public investment as a main fiscal policy instrument and its impact on GDP and the private investment. For the empirical analysis, we have used secondary data and used Co-integration techniques. Following Aschauer (1989), Barro (1990), World Bank (1990), the possibility of differential impacts of private and government capital stocks on economic growth was considered.

8.2 Summary of Findings:

The study includes eight chapters; the introduction, literature and theoretical review, two chapters on development history and the liberalization process in Syria and India. The followed two chapters are mainly empirical, examined the public and private investments on GDP in both economies. A short appraisal of some issues related to the trade openness in the

Syrian and Indian context has been explored in chapter seven. Chapter eight is devoted to the conclusion.

8.2.1 Chapter 1:

This chapter provides the context of the academic debate over market versus state in development in a historical context, trends in probable factors for growth in Syria and India, framing of the research problem, objectives, hypotheses, methodology, chapterization and limitations. The central research problem of this thesis is whether public investment in Syria and India has contributed to growth, as contemplated by development theories or caused a crowding-out effect and thus slowed down the growth. Further, the thesis investigates trade openness as a determining factor for growth. The hypotheses, therefore, are 1) public investment has no role in promoting growth of output, 2) public investment causes crowding out effect, and 3) trade openness matters for economic growth. The three hypothesis are also tested for the short and long run using cointegration and error correction methodology. We use standard time series econometric tests to falsify the hypotheses for the two countries for the period 1970-2010 for Syria and India. The thesis has eight chapters.

8.2.2 Chapter 2:

Chapter 2 deals with survey of theoretical and empirical literature. In the first part, theories about the role of state in development were reviewed; starting with the early classical traditions to the Neo-classical theory and its Critiques of New Developmentalism. The theoretical literature had come a full circle from laissez-faire to state intervention to rolling back state to appropriate state intervention. The classical economic literature argued for laissez-faire (they will do all) system without any government intervention except for sovereign functions. However, the 1930 economic depression and near collapse of the global capitalism has led economists to believe the inherent nature of instability of capitalism and state has to play a major role in its stabilization, a la John Maynard Keynes. For post-colonial counties, state had a huge role to carry out the big push, pull economies out of vicious cycles of poverty, mobilizer of savings and carrying the role of development state, for accelerating capitalist industrialization. Then came neoliberalism in the late seventies, which argued the intervention as the sole reason for stagflation and policy ineffectiveness. The finance capital in advanced countries restructured global capitalism under globalization. Washington Consensus that contained the whole program of economic reforms to roll back state open economy for market forces was carried out in almost all countries, in the post-Soviet collapse. Syrian and India were

subjected to economic reforms in more or less similar conditions, and they shared even the strategies of planning in the initial decades.

The second part of this chapter analyzed the empirical literature from two different perspectives, corresponding to the two distinct phases of pre and post-reform periods. We also reviewed different empirical studies covered the issue of government investment's impact on output and private investment, and trade openness' role in driving the growth in different countries. What we can clearly see from the literature is that there is equally compelling empirical evidence for a positive role of state in determining growth as much as the opposite claimed by the critics, in the context of different countries. However, the literature on Syria in English language source is completely absent and what is available in Arabic literature sans empirical sophistication. The comparison with India likely to give us a better perspective on the research questions that we have raised, which have similar experiences in development, despite their differences.

8.2.3 Chapter 3 and 4:

These two chapters discuss the trends of growth rates and related macroeconomic variables in Syria and India's economic development policy respectively. Central- planning as a development strategy implemented in Syria and India until the year 1991 was having general similarity of the general aim, objectives, and the direct goals. Development planning is an organizational program through which to achieve socio-economic development, and build up an indigenous capacity through Import-Substitution strategy, and to achieve Self-sufficiency, and rapid structural transformation. Further, it can be said that the background of development planning in India and Syria was a product of British and French colonial socio-economic conditions. However, the India's path to development is generated much more internally, while that Syria's path of development is largely foreign induced and, in a way, also 'foreign-managed', subjected to exogenous episodes of war emanating from the political and geopolitical constraints.

Chapter three discussed elaborately the development path of Syrian economy over forty years (1970-2010). Special attention was drawn on the most important events that Syria faced and effected its path of development during the Ottoman Empire and French colonial rule till independence. Throughout the chapter three, we emphasized the fact that Syria's complex political circumstances – both from a domestic, international and geopolitical points of view have shaped it development path, influenced its growth potential and reform choices. However, it is important to locate the historical context of development. Since its independence, Syria

witnessed several military coups along with several political events, which had hindered the establishment of a clear development strategy until 1960. Such political economy considerations could provide an explanation to the decision of Syrian government to sign a pact with the Soviet Union in 1965, providing the first socialist influence within the Syrian state in exchange for planes, tanks, and other military equipment being sent to Syria. The period from 1956 to 1970 were years of Nationalization and land reform policies, where all the funds came from the Soviet Union. The number of large projects implemented with the assistance of the Soviet Union from the mid-1960s to the beginning of the nineties of the last century was more than sixty projects, under which Syria obtained a loan of 120 million Rubles in 1966⁴⁹. Later, with the New Era of Al-Assad in 1970, '*Infitah Policy*' were followed by some political reforms which favored the integration of conservative as well as progressive forces in the Syrian government. New Era had invested the Arab and foreign aids (political-rents) into the process of development. The structural composition of the economy-as defined at that stage was a state-led, but yet a mixed economy, where public and private sectors work together. Assad regime tried to keep close ties with the Soviet Union and East European states, in order to ensure mainly the flow of military supports and aids required to confront Israel.

The chapter 3 compared the achievements and failure of planning and reform in Syria throughout the first and second Assad regimes (1970-2010). We found that Syria had faced many difficulties during the implementation of development plans in the form of successive military wars in: 1967 and 1973 (against Israel); 1979 in the Lebanese War; and in a long struggle against the Muslim Brotherhood in 1982; Iraq-Iran War; and the Second Gulf War. Later, the 2003 Iraqi war. Thus, the internal and external political environment limited the possibility of achieving inclusive growth and productivity, and eroded the country's implementation capacity. The historical course, tangled in war and instability, has constrained the policy choices available to the government. Nevertheless, during planning, Syria built a strong industrial base with a range of industries, including oil and phosphate, and some capital and consumer goods industries like iron, steel, cement, chemicals, pharmaceuticals, etc. Syria's industrial production had a comfortable domestic market owing to the protectionist policy, and a huge market linked to the Soviet Union. Syria also witnessed successful social-redistribution

⁴⁹ In 1963, the Technical Support Center for the Soviet Navy was established in the Syrian port of Tartous. After that, in 1972, the Economic Cooperation Agreement was signed, in which Moscow had pledged a loan to finance oil projects. Subsequent agreements have implemented for different projects of construction of various factories such as steel, iron, steel pipes, a factory for the production of aluminum rods and sheets, textile factories, sugar, tires and others, soviet also provided the structure of over 1500 km of railway lines.

policies in which the Ba'ath Party supported education and healthcare systems as fundamental pillars for social development.

Later, following the collapse of Soviet Union, Syria started with a series of selective economic reforms in the 1990s, and accelerated the reform after 2000 with the new regime. However, in the reform phase, the fruits of rapid growth, associated with the region's overall growth, had been dropped by a new active segment of private sector (the new business sector, especially in the new services, where a small handful of them controlled Syrian economy in service and construction sectors). Syria's economic growth remained primarily rent-based, depending on oil revenue dependent. The reforms introduced after 1991 do appear to have helped restructure the economy to non-oil and manufacturing base through market forces. Investment in manufacturing sector was insufficient, and the new business (private sector) did not make the required change within Syrian economy, and guide development. However, the reforms have contributed to the increased role of private capital and consequent redistribution of income and inequality.

The Chapter 4 provided a summary picture of the Indian economy during the planning and reform period. Planning as a strategy was accepted and there was a total consensus among different parties. As so many authors have pointed out, a large state sector, expenditure programs, and Industrial Policy Resolution of 1956, were recognized as a pre-condition instrument of support, not opposition, for the development of the Indian capitalist class (Mundle, 1974). The debate on the achievements and limitations of India's development planning has extended after 1991, where extensive empirical literature argued about the importance of reform in fostering economic growth and achieve the development goals. Compared to the colonial stagnation at 0.01 percent growth during 1900-47, the planning phase in India registered a 3.6 percentage rate of growth during 1950-81 which was way more, and it was during the planning phase, rather than reform period, in which India witnessed the initial break in growth, detected back to the year 1975/76. Further, India achieved food security and rapid economic growth towards the end of the planning period. The economic reforms for over decades did not produce any miraculous growth in India, but the global upsurge in growth during 2003-08 has given an opportunity to clock high rates of growth. But the improvement in development indicators of social sectors for India remained less than desired, though there are some enclaves of high performance.

Further, India during planning witnessed a significant growth in the capital goods sector, not only in heavy industries, but in infrastructure, rural and urban electrification, irrigation, technical know-how, and design engineering capacity. It was during the plan period,

India achieved a radical transformation in the economy's structure, wherein share of primary sector has declined significantly, and India achieved food grain self-sufficiency by 1976. The structural change after reform was characterized by a shrinking share of agriculture coupled with slow-paced industrial development, with a decline in TFP after 2000. Further reform process brought in a structural change skewed to the service sector. The service sector has contributed to 50% of total GDP growth in 2000-01, and about 57% in 2011-12; thus, the fact which not refutable is that entire growth miracle seems to have performed entirely by the service sector (arising from a growing domestic and international demand for producer services), while, both agricultural and manufactured sector has taken a beating as we saw.

In sum, differences among countries are not necessarily become of endowments of the countries, but of their policies as well. Even though in Syria and India, the thrust of policy has changed due to the economic reforms, however, the mixed economy status has remained more or less in both. Under the new global conditions, with not much global capital inflows and foreign exchange constraints, the strategy to build a strong foundation for industrial base cannot be underemphasized. The agrarian constraint and a demand constraint can always play and there is a need for the role of the state.

However, as reform policies focused on limiting the role of state, and limiting its ability to increase capabilities based on the assumption that governmental failure, is an incomplete argument within the Indian and Syrian context. State proved to be successful with remarkable achievements. On the other hand, relying on WC in the era of Neoliberalism contributed to failure; markets on their own are neither stable nor efficient, and could not achieve the development goals, in a small country like Syria or in a big country like India.

8.2.4 Chapter 5 and 6:

These two chapters are the core chapters of the empirical work of this thesis. First, we examined the overall size of the government expenditure during pre- and post-reform periods in both countries. Second, by utilizing the 1991 policy shift as a breakpoint, we examined the direct interaction between gross public and private capital formation and growth, we also addressed the possibility of crowding-in/crowding-out effect over the two periods of pre- and post-reforms. The overall objectives of these two chapters were to examine how far fiscal adjustment; size and composition of government spending have changed over time, and to what extent these changes impacted the economic growth. We describe the major inferences from these exercises in the following:

We empirically examined the impact of reform on economic growth in Syria, with special reference to the public capital. The total public expenditure in terms of share of GDP has declined after 1991. Then, using the co-integration analysis for searching for long-term relationships, results showed that the key factor to long-term growth in Syria is the public expenditure rather than private. We tested the impact of the policy shift in Syria after 1987 using three data series of: output, public capital formation, and private capital formation. The results confirmed that public investment influences growth directly with a lag effect, as well as indirectly via private investment in which crowding in effect found to be significant. In contrast, the private investment in Syria appeared to influence GDP growth with a lag of two years. These results provide strong evidence to the Keynesian theory that it is the investment behavior determines the extent to which household savings are realized in the form of capital accumulation. Thus, cut in the rate of public investment could have negative consequences on the economy. We found also, in the second model, that private investment responded positively to the expansionary government policy, and the crowding out hypothesis was rejected in the pre and post reform periods.

Moreover, the analysis in this chapter showed inherited problems in private investment in Syria: ***one explanation for that*** maybe due to the fact that most private sector firms are micro or small- and often family-owned; a large number of firms are informal: the last estimation of the informal sector in Syria showed that this sector is about more than the half of GDP. Further, private investment channeled into less productive activities while investment in industry, transport, and communication have been neglected. Thus, the public investment need not be cut down, rather we should direct it into strategic areas (electricity, and infrastructure), in order to enhance the growth process. On the other hand, private investment (domestic and foreign) need to provide further support at the macro-level such mainly financial facilities and credits, incentives to invest in specific areas to solve misallocation problem.

In Chapter 6, we found that Indian government expenditure, at the combined level, showed excessive growth and expansion from the early 50s up to 1990, as a result of the increase of public investment as plans roll-on in almost all areas. During reform period, public expenditure and several deficit indicators resulted in the fiscal discipline in India, mainly from the capital spending side. India also witnessed an increase in investment from 17.5% of GDP for the pre-reform phase, to 27.1% for the post-reform phase (1992-2013); however, total investment was induced mainly by the private sector. In contrast, public capital formation had diminished overtime in the post-reform period; its rate declined to 30% of total investment (7.9% of GDP).

In this section, an empirical attempt has been made to test the behavior of demand factors which could explain the long-term growth in India, through conducting multivariate co-integration tests for Indian data over the period (1950-2013). Through applying long run test, we have found two co-integration vectors which described the growth accounting and mechanism within Indian context. From the demand-side, we have found that the private capital formation is the key determinant of growth in India, followed by the public capital formation.

The empirical estimation showed that public investment appears to have a significant role in the short, as it influenced the growth directly (with one year lag), and indirectly through the channel of private investment (in which crowding in effect found to be significant). In contrast, the private investment appears to influence GDP growth (with two years lag). These results provide strong evidence of our main argument, in which cutting back public investment has negative consequences on economic performance. We found in the second model that private investment responded positively, in the short run, to the expansionary government policy, while in the long run, its response was not significant. This suggested that the usual analysis relating to the crowding out cannot fit in the pre- and post -reform period in India. There are two other main variables that influenced the private investment in the long run are; the expansion of the domestic credit, and the lowering of interest rate. It was found that private investment in India has expanded impressively, especially after 2003, as a result of the implementation of reform agenda that strengthened its role.

To conclude, as the WC pose the development process in terms of State vs. Market, in the 1980s, and called for small state, and largely argued against government activism and advocated for trade liberalization, deregulation and privatization. However, our results in both economies suggested that public investment to GDP ratio, cannot be overemphasized, and it constituted an important instrument in the hands of the government to push the growth and development process during the planning. Further, as India has achieved a high growth rate after reform, it is worth noting that the *trickle down* did not work in India, in which the adverse outcomes of reform policies; inequality, poverty, and unemployment were obvious. Thus, it is required that each argument raised in the 1990s in favor of market-reform should be examined more closely. As WC paid no attention to inequality or to social structure and cohesion, and no attention to corporate governance, the rules governing the private sector. It becomes more important to ask about how we can assess social improvement as the GDP was not a good measure of economic performance.

8.2.5 Chapter 7:

Chapter 7 provided an empirical analysis and brief assessment of the trade policy reform in Syria and India.

Our results support the view that export is a crucial factor in the growth process in the long-term within Syrian economy and exceeds the importance of private and public capital together. However, compared to Arab-Gulf and international standard, Syria is a minor producer and small exporter of oil; nevertheless, crude oil covered, on average, half of total exports for the entire period of 1970-2010. The oil industry played a vital role in Syria's economy, generating much-needed foreign exchange covered import bills. Thus, the main driving force of trade reform after 1991 in Syria was to diversify and expand the production foundation of Syrian economy, and thus the export base, yet share of non-oil export in GDP did not exceed 25% (with a number of 162 of products exported in 2007). The more openness of the economy did not contribute to change its structure from oil-dominates (rented economy) to industrial base-dominates, rather, trade reform enhanced the private sector's share in export in non-competitive products to a ready market like Former Soviet Union and Iraq, and Lebanon (linked to special 'barter program'). Thus, there is a need to transform the economy from excessive export dependence to home market-based growth, by boosting investment in industry and agriculture. Otherwise, the economy will be excessively sensitive to external factors, particularly the international oil and gas prices.

In the case of India, after 1991, the economy fully exposed to external competition and trade openness has increased significantly. Contrary to the general view that trade in service-led growth in India, we found strong evidence that Indian growth is domestic demand-led but not trade-led, with investment playing a key role in the growth dynamics while exports have weak link in the long-run relation from the co-integration analysis. This is not to say that exports are not important. But certainly not central to the Indian growth process. It is an additional factor to push the horizons as it happened during 2004-08 when global trade expanded, it helped India to clock the highest rates of growth. Thus, one can argue that, generally, trade openness is associated with higher levels of income, yet this relation seems to be causal but is absolutely temporary. Further, given the fact that the invisible (IT) exports have a greater share in the overall exports, the liberalization pushed by IMF, and World Bank and Washington, have led India to concede more its markets while creating disproportionately less export markets. That's why imports have increased more than exports and caused greater external debt and current account deficit problems.

Realizing the gains from trade undoubtedly involves labor reallocation, and trade displaced workers. In India, there was a change in the composition of labor demand by different firms which changed, in turn, the relative employment and wages with negative redistributional effects within the economy. This is illustrated by Goldberg & Pavcnik (2007) who found that there is much evidence from India, Brazil, Mexico, and others, of rising wage inequality during the time of liberalization. This is because, the low skill-intensive sectors are not benefiting from any protection policies, while in case of exists, it could help in increasing the premium.

In sum, the domestic demand role in the growth cannot be ignored in the Indian context. The test shows that it may be the causality run from strong domestic demand to the output growth, then to the export. Overall India's experience with liberalization has been gradual which provided the state with sufficient space to pursue the developmental policies. The state should enhance its role and use the market and directed it in manufacturing areas. Adequate protection to some industries is required against external shocks emanating from openness, mainly those which are highly labour-intensive. Changing trade patterns is very important in India and Syria to shift from service and oil export, which requires continuous changes- balance between state and market.

8.3 Policy Recommendations:

There is a growing body of literature, especially after the reform that the state should stay away from ownership and investment projects (except for infrastructure). However, the analysis provided by our study clearly contrasted this view. The study pointed out the importance of government investment in both countries, and even in the neoliberal era. Therefore, the most important policy conclusion for our analysis can be summarized as follow: (1) there is a need to recognize that public investment has a complementarity with private investment, rather than substitutability. There is no need to wind up public investment to promote private investment, especially in the initial stages of development. (2) Further, there is also a need to find a proper balance of investment allocation across the sectors. While this thesis has not explicitly dwelt with this aspect, it goes without saying that a balanced strategy of economic growth is very important, in a Nurksian sense. (3) The composition of public investment is also an important issue, not merely the volume of public expenditure. The effectiveness of public expenditure to some extent depends on the distribution of capital and revenue expenditure. (4) The government policies need to pursue even wider objectives related to social welfare, mainly in health and education sectors, and governance. The provision of

these services can be bureaucratically managed, or in the form of private-public partnership, instead of being provided by the private sector. (5) There is a need to plan a country's exports so that external debt obligations are managed well. (6) Political stability is a precondition for liberalization policies to work. There is a need for the international community to recognize the adverse impact of economic sanctions on ordinary lives of people and economy. International community should not punish the economy and people to punish the regime in power.

It is an artless to view the problem solely in terms of greater role for the private sector and switching over to a market-based economy. One needs to take pragmatic view, in some countries state institutions can be even more efficient than the private sector. State's role should have to continue as a significant actor; providing essential infrastructure in agriculture and industry and interfere by political and social means in redistribution process and eliminate poverty. Even in in most successful developed countries, government has played significant role. Thus, the content of reform should incorporate the public sector as much as private sector and the interrelations among them (Vaidyanathan, 1990). State seems to have not only regulatory role, but a catalytic, developmental, and coordinating role.

Beyond such generalities, however, the problems of growth, welfare, and distribution are vary a lot between India from that of Syria, and other countries. The implication of such policies required a 'strong state' - a state can commit to long-term policy for development, and not deviate from it under short-term populist pressure, as it the case in South Korea and Japan. Committed political economic policies —with effective institutions, and with some room in a global political economy—are likely to best understand and pursue solutions to developmental problems.

Recently, there is a growing dissatisfaction with the Washington Consensus. The WB and the IMF have systematically downplayed the state's role in accelerating growth and facilitate development. The WC saw little need for country-specific judge, and detailed field studies considered a waste of time, we argue that one-size can *not*-fits-all; countries should be given room to experiment, use their own judgment, and explore alternatives; development requires a balanced role between the state and the market.

The WC focus only on the growth as a narrow goal (J. E. Stiglitz, 2016), Stiglitz⁵⁰ goes on to emphasize, rightly, the need to focus attention on improvements in income distribution, environment, health, and education (Basu, 2001). In his wards; John William, admitted that "I

⁵⁰ Joseph Stiglitz, the former chief economist of the World Bank

deliberately excluded from [my] list [of the ten areas] anything which was primarily redistributive... because I felt the Washington of the 1980s to be a city that was essentially contemptuous of equity concerns."(John Williamson, "Democracy and the 'Washington Consensus,'" World Development, in reform file, after WC.) Likewise, noted Williamson, the consensus "had little to say about social issues... and almost nothing to say about the environment." (Williamson, Progress of Policy Reform, p. 83).

Finally, I would like to mention the current situation in Syria. Given the fact that Syria is suffering since the outbreak of the crisis in March 2011, the economy is quite fragile and there is uncertainty related to political and geopolitical context. Thus, the pace of reforms after the crisis, and the construction process in Syria should measure the hazard of social dislocation, and in such case there is a significant role of the Syrian state to play, which cannot be ignored at all. Additionally, almost all Syria's economic and social institutions, as a result to the war, are at an incipient stage, it can be argued that under current circumstances, the reform process will require a restructuring process of Syria's institutions within a certain degree of gradualism, which also required a strong state.

Finally, it is important to stress that the implementability of the policies will depend crucially on Syria's vision as to the role of the State going forward in a number of economic domains. These domains include the potential role of the State as a producer, regulator, exporter, importer, lender and borrower. That is perpetuated by existing policies and institutional arrangements. Further, with the decline of oil exports during the coming years, *Syria's economic perspective will depend on its ability to replace the oil exports with exports of agricultural and manufactured products as well as services. Growth and diversification of non-oil exports is a key component of inclusive growth in Syria.*

Statistical Appendix- 1 SYRIA

Before running this test, we first determine the appropriate lag length To determine the optimal lag length of the VAR model. Generally, the approach of information criteria, such as Akaike's (AIC) and Schwarz's Bayesian Information Criteria (SC). Because the data sample is run over 40 years, we decide to run an unrestricted VAR model with all variables from the lag 0 to lag 3. After estimated unrestricted VAR with different lag lengths, the corresponding Akaike information criterion (AIC), Schwarz criterion (SC), Hannan-Quinn information criterion (HQ) are recorded and compared: The optimal length is determined by the minimized value of each information criteria. If we get contradictive results of AIC, SC, HQ we prefer to select the optimum lag length based on SC. Having identified the optimal lag length, we test for co-integration: The Johansen method uses a maximum likelihood (ML) estimate of the multivariate system. The ML method is applied to the VAR formed by the model one.

Syria Growth-Model-1:

Table: 1- Lag length criteria-model-one

LAG LENGTH CRITERIA-MODEL ONE			
Growth Model-1			
LAG	AIC	SC	HQ
0	8.985	10.278	9.445
1	-10.767	-9.087	-10.169
2	-12.41	-10.342	-11.674
3	-13.47*	-11.01*	-12.59*

* indicates lag order selected by the criterion, AIC: Akaike information criterion, SC: Schwarz information criterion, HQ: Hannan-Quinn information criterion. The results are calculated by author using E-Views 10 software in the estimation of unrestricted VAR model, the GDP variable ordered first. In the first model, maximum lag was chosen to be 3 lags only. We have chosen lag 3 for model 1 based on SC criteria.

Table: 2-Johansen Test Results-model-one

Hypothesized No. of CE(s)	Growth Model-1	
	Trace statistics	Max-Eigen Statistic
None	38.353*	24.914*
	(29.797)	(21.132)
At most 1	13.439	13.402
	(15.495)	(14.265)
At most 2	0.037	0.037
	(3.841)	(3.841)

Table reports the Trace and Max-Eigen value statistics of the Johansen co-integration method for the Growth model. * denotes rejection of the hypothesis at the 0.05 level. The 5 % critical values of the tests are in parenthesis. It should be noted that the *Johansen test does not include additional exogenous variables*. Although this would make the model more complete, the conclusions regarding the existence of co-integrating relationships do not change. David Gelies (2011) found that if the dummy variable included as exogenous variable in the Johansen co-integration test, the corresponding critical values will be incorrect. Thus, all variables entered the Johansen test as endogenous with no dummies. The result shows, trace and max-eigenvalue tests indicates (1) co-integration equations at the 0.05 level.

Table-3 Diagnostic test statistics for EC model-1

	Serial correlation LM	Normality	Heteroskedasticity
	Breusch-Godfrey Obs-*squares	Jarque-Bera	ARCH (2)
EC-Model 1	1.62517 (0.4378)	2.8272 (0.5823)	2.450985 (0.2936)

It appears that the EC models are well specified, as none of the diagnostic tests failed. The equation pass the LM test is the Lagrange multiplier test for serial correlation, and Normality test for residuals distributed as χ^2 , ARCH Engle's Test for Residual Heteroskedasticity. P-value in ().

Syria Private Sector-Model-2

Having found that the variables are integrated of order one $I(1)$, thus, it is necessary to determine whether there is at least one linear combination of these variables that is $I(0)$. This was also done by using the Johansen co-integration method. The test includes the log of the Private investment, log of real public investment, and the index of the real effective exchange rate as an exogenous variable. The number of lag has been chosen based on AIC and HQ of two lags for VAR. The results show one unique co-integrating vector (denoted by both the trace and Max-Eigen statistics).

Table: 4- Lag length criteria-model-2

Private Sector Model			
LAG	AIC	SC	HQ
0	7.266006	7.610761	7.388667
1	-1.23829	-0.721158*	-1.054299
2	-1.369656*	-0.6801456	-1.124334*
3	-1.198906	-0.337019	-0.892253

* indicates lag order selected by the criterion, AIC: Akaike information criterion, SC: Schwarz information criterion, HQ: Hannan-Quinn information criterion. The results are calculated by author using E-Views 10 software in the estimation of unrestricted VAR model, the GDP variable ordered first. In the first model, maximum lag was chosen to be 3 lags only. We have chosen lag two for this mode, and VECM estimated at lag 1.

Table: 5-Johansen Test Results-model-2

Hypothesized No. of CE(s)	Private Sector Model	
	Trace statistics	Max-Eigen Statistic
None*	22.42937*	17.36948*
	(15.49471)	(14.2646)
At most 1	3.841466	3.841466
	(5.059884)	(5.059884)

Table reports the Trace and Max-Eigen value statistics of the Johansen co-integration method for the models of Growth with export. * denotes rejection of the hypothesis at the 0.05 level. The 5 % critical values of the tests are in parenthesis. Here we have include the index of real effective exchange rate as exogenous variable in the co-integration test.

Table-6: Diagnostic test statistics for EC model 2

	Serial correlation LM	Normality	Heteroskedasticity
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	Breusch-Godfrey Obs-*squares	Jarque-Bera	ARCH (1)
EC-Model 2	0.0522430 (0.8189)	0.300513 (0.860)	1.0077341 (0.2993)

It appears that the EC models are well specified, as none of the diagnostic tests failed. The equation pass the LM test is the Lagrange multiplier test for serial correlation, and Normality test for residuals distributed as χ^2 , ARCH Engle's Test for Residual Heteroskedasticity. P-value in ().

Syria Export -Model-3

Table: 7- Lag length criteria-model-3

Growth Model-1			
LAG	AIC	SC	HQ
0	8.669646	9.014401	8.792308
1	-5.211769*	-4.177504*	-4.843785*
2	-5.031202	-3.307428	-4.417897

* indicates lag order selected by the criterion,. The results are calculated by author using E-Views 10 software, in the estimation of unrestricted VAR model. the GDP variable ordered first. Lag one has been chosen by all criteria. Thus, VECM will be estimated at lag (0)

Table: 8-Johansen Test Results-model-3

Hypothesized No. of CE(s)	Growth Model- with Export	
	Trace statistics	Max-Eigen Statistic
None*	48.45679*	28.04999*
	(47.85613)	(27.58434)
At most 1	20.40681	14.95652
	(29.79707)	(21.13162)
At most 2	5.45029	5.15241
	(15.49471)	(14.2646)

Table reports the Trace and Max-Eigen value statistics of the Johansen co-integration method for the models of Growth with export. * denotes rejection of the hypothesis at the 0.05 level. The 5 % critical values of the tests are in parenthesis

Table-9: Diagnostic test statistics for EC model 3-Export

	Serial correlation LM	Normality	Heteroskedasticity
	Breusch-Godfrey Obs-*squares	Jarque-Bera	ARCH (1)
EC-Model 3	0.000486 (0.9824)	0.145615 (0.929)	0.313678 (0.5754)

It appears that the EC models are well specified, as none of the diagnostic tests failed. The equation pass the LM test is the Lagrange multiplier test for serial correlation, and Normality test for residuals distributed as χ^2 , ARCH Engle's Test for Residual Heteroskedasticity. P-value in ().

Statistical Appendix- 2 INDIA

India's Growth-Model-1:

Table: 1- Lag length criteria- Growth Model: 1.1 & 1.2

	Growth Model-1.1:1950-2018		Growth Model-1.2:1950-1991	
LAG	AIC	SC	AIC	SC
0	6.715925	7.024702	-	-
1	-8.768121*	-8.150566*	-7.874	-7.09855
2	-8.717962	-7.791629	-8.164*	-7.776624*

* indicates lag order selected by the criterion, AIC: Akaike information criterion, SC: Schwarz information criterion. The results are calculated by author using E-Views 10 software in the estimation of unrestricted VAR model, the GDP variable ordered first. In the first model. For the model one and two we have chosen lag(1) for vecm.

Table: 2-Johansen Test Results-model-1.1 &1.2

Hypothesized No. of CE(s)	Growth Model-1.1		Growth Model-1.2	
	Trace statistics	Max-Eigen Statistic	Trace statistics	Max-Eigen Statistic
None*	49.09074*	32.2632*	30.24027*	22.1377*
	(29.79707)	(21.13162)	(29.797)	(21.13162)
At most 1*	15.49471	11.56599	8.1026	6.132277
	(16.82754)	(14.2646)	(15.495)	14.2646)
At most 2*	3.841466	3.841466	1.9703	1.9703
	(5.26155)	(5.26155)	(3.8415)	(3.841466)

Table reports the Trace and Max-Eigen value statistics of the Johansen co-integration method for the Growth model. * denotes rejection of the hypothesis at the 0.05 level. The 5 % critical values of the tests are in parenthesis. It should be noted that the *Johansen test does not include additional exogenous variables*. Although this would make the model more complete, the conclusions regarding the existence of co-integrating relationships do not change. David Gelies (2011) found that if the dummy variable included as exogenous variable in the Johansen co-integration test, the corresponding critical values will be incorrect. Thus, all variables entered the Johansen test as endogenous with no dummies. The result shows, trace and max-eigenvalue tests indicates (1) co-integration equations at the 0.05 level for the model one and model two as well.

Table: 3-Co-integration F-Bound Test Results-model-1.3

Co-integration test: F-Bounds Test:Model 1.3 post-reform				
Null Hypothesis: No levels relationship				
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	8.071832	10%	3.17	4.14
k	2	5%	3.79	4.85
		2.5%	4.41	5.52
		1%	5.15	6.36
Actual Sample Size: 27				

The co-integration bound –test model have been calculated within ARDL framework as the sample is small. The result shows that there is a co-integration among the variables even at 1% level (F-statistics>6.36). the lag length in this model has been chosen based on AIC.

The autoregressive distributed lag (ARDL) model is an ordinary least square (OLS) in which could be applied for both non-stationary time series as well as for times series with mixed order of integration I(0) or I(1)¹. ARDL is more appropriate for a short period of time, for that we apply co-integration technique known as bound test of co-integration, irrespective of whether the variables are I(0) or I(1) or a combination of both; introduced by [(Pesaran and Shin (1999) and Pesaran et al. (2001)].

Table-4 Diagnostic test statistics for EC (Growth models: 1.1, 1.2 and 1.3)

	Serial correlation LM	Normality	Heteroskedasticity
	Breusch-Godfrey-Rao F-stat	Jarque-Bera	ARCH (2)
	F-stat.Obs-*squares		
EC-Model 1.1	1.344229	5.30297	63.14258
	(0.2205)	(0.319)	(0.577)
EC-Model 1.2	1.142892	3.130873	48.31451
	(0.3469)	(0.3719)	(0.9499)
EC-Model 1.3	0.773415	0.834566	1.505501
	(0.3792)	(0.658834)	(0.2385)

It appears that the EC models and ARDL are well specified, as none of the diagnostic tests failed. The equation pass the LM test is the Lagrange multiplier test for serial correlation, and Normality test for residuals distributed as χ^2 , ARCH Engle's Test for Residual Heteroskedasticity.

Syria Private Sector-Model-2: pre and post reform

Table-6: Diagnostic test statistics for model 2-private sector

	Serial correlation LM	Normality	Heteroskedasticity
	Breusch-Godfrey-Rao F-stat	Jarque-Bera	ARCH (2)
	F-stat.Obs-*squares		
Model 2	4.909917	0.432153	1.9265
	(0.1859)	(0.80)	(0.5878)

It appears that the EC models are well specified, as none of the diagnostic tests failed. The equation pass the LM test is the Lagrange multiplier test for serial correlation, and Normality test for residuals distributed as χ^2 , ARCH Engle's Test for Residual Heteroskedasticity. P-value in ().

India -Model-3:

Table: 7- Lag length criteria-model-3

	Growth Model-1		
LAG	AIC	SC	HQ
0	6.54432	6.677026	6.596758
1	-10.56091*	-9.897381*	-10.29872*
2	-10.45016	-9.255803	-9.978213

* indicates lag order selected by the criterion,. The results are calculated by author using E-Views 10 software, in the estimation of unrestricted VAR model. the GDP variable ordered first. Lag one has been chosen by all criteria. Thus, VECM will be estimated at lag (1) to avoid serial correlation at 1% level

¹ M. Pesaran, Hasem, Bahram Pesaran Working with Microfit 4.0: Interactive Econometric Analysis Oxford University Press, Oxford (1997)

Table: 8-Johansen Test Results-model-3

Hypothesized No. of CE(s)	Growth Model-1.1	
	Trace statistics	Max-Eigen Statistic
None*	61.4443*	24.78617*
	47.85613	27.58434
At most 1*	36.65813*	21.76655*
	29.79707	21.13162
At most 2	14.89158	3.841466
	15.49471	5.408976

Table reports the Trace and Max-Eigen value statistics of the Johansen co-integration method for the models of Growth with export. * denotes rejection of the hypothesis at the 0.05 level. The 5 % critical values of the tests are in parenthesis. The test show two co-integration equations.

Table-9: Diagnostic test statistics for EC model 3-Export

	Serial correlation LM	Normality	Heteroskedasticity
	Breusch-Godfrey Obs-*squares	Jarque-Bera	ARCH (1)
EC-Model 3	3.527501 (0.8970)	7.460841 (0.4878)	130..81 (0.4635)

It appears that the EC models are well specified, as none of the diagnostic tests failed. The equation pass the LM test is the Lagrange multiplier test for serial correlation, and Normality test for residuals distributed as χ^2 , ARCH Engle's Test for Residual Heteroskedasticity.

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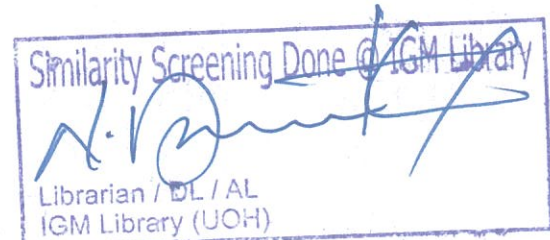
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फॉरेन ट्रेड रिव्यू Foreign Trade Review

Dear Dr. Forat Suliman,

We are pleased to communicate to you that your commentary titled **“External Sector; Between Congestion and Sanctions- ‘Syrian Economy Case: 1987-2018’ Using Gravity Model Approach”** has been accepted for publication in *Foreign Trade Review* [Indexed by Clarivate Analytics: Emerging Sources Citation Index – ESCI (<https://journals.sagepub.com/metrics/FTR>)], published by SAGE-Publication (<https://in.sagepub.com/en-in/sas/home>).

It is our pleasure sharing with you the publication details which are as follows:

- Publication in Foreign Trade Review (FTR) - Special Issue titled - **“Trade, Environment and Adjustments: Contemporary Themes”**.
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Thank you very much for considering *Foreign Trade Review* for publishing your research.

Ranajoy Bhattacharya
25/02/2020

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