



**UNIVERSITI PUTRA MALAYSIA**

***MARKET-SUPPORTING INSTITUTIONS AND EFFECTS OF FOREIGN  
DIRECT INVESTMENT, INFLATION, AND INFLATION VOLATILITY ON  
ECONOMIC GROWTH***

**LY SLESMAN**

**FEP 2014 25**



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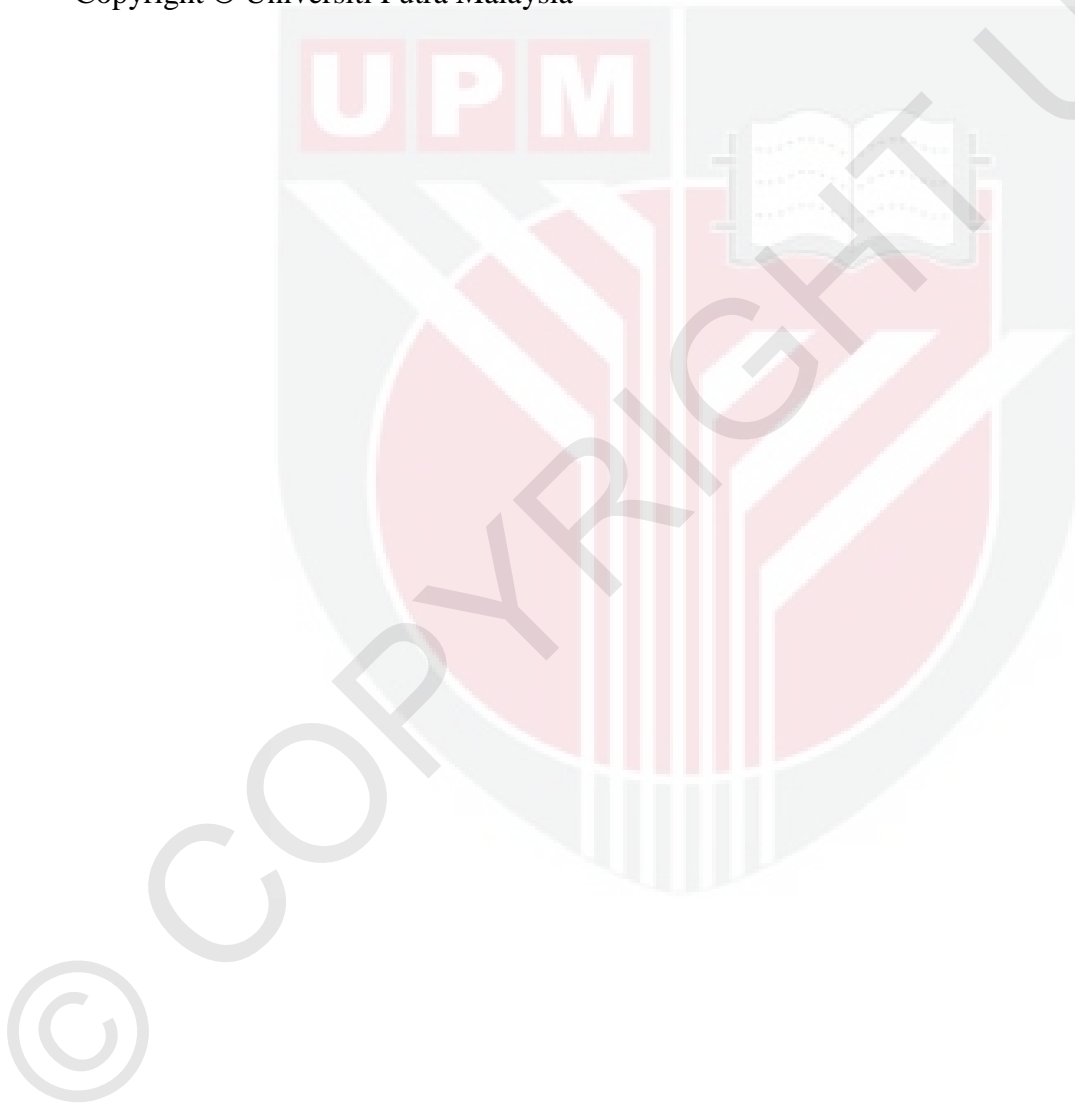
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**May 2014**

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia  
in fulfillment of the requirement for the degree of Doctor of Philosophy

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**May 2014**

**Chair: Ahmad Zubaidi Baharumshah, PhD**  
**Faculty: Economics and Management**

This thesis aims to empirically examine contingent roles Market Supporting Institutions (MSI) play in mediating the effects of standard Solow-Mankiw-Romer-Weil (Solow-MRW) growth determinants, Foreign Direct Investment (FDI), and inflation and inflation volatility on long-run economic growth. It uses the sample of 93 developed, emerging market and developing countries over 1980-2010 periods.

In the first objective, it examines the role of market creating institutions (MCI), the *core* component of MSI, in indexing different growth regimes. Using Rodrik's (2000, 2005) conceptualization to unbundle MSI into MCI, market-regulating (MREGI), market-stabilizing (MSTABI) and market-legitimizing (MLEGI) institutions, it investigates whether countries belong to regime with high MCI quality have efficiently transformed Solow-MRW growth determinants into higher growth compare with low quality MCI regime. Within this context, it also investigates whether MREGI, MSTABI, and MLEGI have differential growth effects in high- and low-MCI regimes. This is to test the contention that different institutions are inter-related in equilibrium whole, with any changes in one domain may influence the rest of domains—the so-called “institutional complementarity hypothesis”. Recent existing literature overwhelmingly focuses on direct effects of “cluster” institutions on growth largely ignoring the indirect or indexing role of institutions and the interaction effects between different dimensions of institutional matrix in influencing long-run growth process. This objective seeks to fill this gap. In the empirical assessment, it uses a novel threshold regression method that is flexible in allowing the effects of growth determinants to take values depending on whether countries obtain the quality of MCI surpass above or fall below the unknown threshold value. The finding reveals that countries obtaining MCI quality above an

estimated optimum threshold value (i.e. high-MCI regime) can transform Solow-MRW growth determinants and MREGI into higher growth than those falls below (i.e. low-MCI group). It finds weak support for MSTABI and no support for MLEGI that they each matter differently in low- and high-MCI regime. These findings are invariant to extensive robust tests. One important policy implication is that poor countries can have high productivity gains from factor inputs and efficient functioning of regulatory institutions from sufficient improvement in the quality of MCI.

Next, there are various gaps exist in the literature on institutions, FDI and growth. First, evidences on FDI-growth link are highly inconclusive. Second, recent research stresses on prominent role of institutions in explaining paradox pattern of foreign capital flows—i.e. so-called “Lucas paradox”. Third, various local absorptive capabilities are found to play important roles in FDI-induced positive spillovers on growth. Fourth, recent studies that focus on local absorptive capacities do not distinguish the contrasting experience of developed and developing countries with respect to FDI and institutional infrastructure. Fifth, the MSI absorptive capacities have not yet been explored on FDI-growth link. To link and fill these gaps, the objective two of this study examines the mediating role of MSI on growth effects of FDI in both developed and developing countries. It applies generalized method of moments system (S-GMM) estimators that are capable of controlling for country specific effects and endogeneity problems of all independent variables in a dynamic panel growth framework. The following results reveal. First, FDI does not have any *direct* significant effect on economic growth in all samples—i.e. full sample, and developed and developing country subsamples—under study but generally contingent on the levels of MSI. It shows MSI mediates positive impact of FDI on growth in both developed and developing economies. It fails to find any such evidence when both groups of countries are lump together in the full sample. Second, result also reveals that developed economies have all moved beyond a minimum threshold score on MSI in absorbing the positive spillovers from FDI on growth. Contrary to developing economies where a minimum threshold scores on MSI are needed before positive effects of FDI on growth kicks in. These findings are robust to a number of sensitivity checks. One optimistic policy implication is that less developed economies can gain relatively huge welfare benefit from FDI spillovers by upgrading their MSI quality to a certain (relatively low) optimum level.

Finally, some scholars recently conjecture that weak institutions are the root cause of bad policy outcome and volatility. Their view stresses that Washington consensus of getting policy right must be complemented by getting institutions right. Existing literature seems to be silent on whether the data supports such contentions. The final objective of this thesis contributes to the literature in investigating the contingent roles MSI play in the growth effects of inflation and inflation volatility in a dynamic panel growth model. Using S-GMM on a dynamic panel growth model, it uncovers the following results. First, it does not find any evidences for the full sample but only for emerging market and developing countries (i.e. non-OECD economies) in supporting

the contention that MSI and some of its components mediate the growth effects of inflation and inflation volatility on growth. These findings are robust to a number of sensitivity checks. Developing and emerging countries can have larger welfare gains from efforts to improve qualities of MSI through its reducing effects on growth cost of inflation and inflation volatility.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia  
Sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**INSTITUSI PENYOKONG PASARAN DAN KESAN-KESAN PELABURAN  
ASING LANGSUNG, INFLASI DAN TURUN NAIK INFLASI TERHADAP  
PERTUMBUHAN EKONOMI**

Oleh

**LY SLESMAN**

**Mei 2014**

**Pengurus: Ahmad Zubaidi Baharumshah, PhD**  
**Faculty: Ekonomi dan Pengurusan**

Tesis ini bertujuan mengkaji secara empirikal peranan kontinjen yang dimainkan oleh Institusi Penyokong Pasaran (MSI) sebagai pengantara bagi kesan faktor pertumbuhan Solow-Mankiw-Romer-Weil (Solow-MRW) yang piawai, Pelaburan Langsung Asing (FDI), dan inflasi dan turun naik inflasi terhadap pertumbuhan ekonomi jangka panjang. Tesis ini menggunakan sampel dari 93 pasaran baru yang sedang membangun dan negara-negara membangun dalam tempoh tahun 1980-2010.

Dalam objektif yang pertama, tesis ini mengkaji peranan institusi pembina pasaran, iaitu komponen teras MSI, dalam pengindeksan rejim pertumbuhan yang berbeza. Menggunakan konsep Rodrik (2000, 2005) untuk merungkai MSI ke dalam MCI, institusi pengawal pasaran (MREGI), institusi penstabil pasaran (MSTABI) dan institusi pengesah pasaran (MLEGI), ia meneliti sama ada negara-negara dalam kategori rejim kualiti MCI yang tinggi telah pun menterjemahkan pertumbuhan Solow-MRW kepada pertumbuhan yang lebih tinggi dengan jayanya apabila dibandingkan dengan rejim MCI kualiti rendah.

Dalam konteks ini, tesis ini juga bertujuan menyiasat sama ada MREGI, MSTABI dan MLEGI membawa kesan pertumbuhan pembezaan dalam rejim MCI rendah dan rejim MCI tinggi. Ini bertujuan menguji dakwaan bahawa institusi ini saling berkaitan dalam keseimbangan keseluruhan, dengan apa-apa perubahan dalam satu domain boleh mempengaruhi seluruh domain-ini dikenali sebagai “Hipotesis Insituti Pelengkap”. Perkembangan terbaru dalam bidang ini memberi tumpuan berlebihan kepada kesan langsung institusi “berkelompok” terhadap pertumbuhan, dengan sebahagian besarnya mengabaikan peranan tidak langsung atau peranan pengindeksan institusi dan kesan interaksi antara dimensi berbeza matriks institusi dalam mempengaruhi proses

pertumbuhan jangka panjang. Objektif ini bertujuan untuk mengisi jurang tersebut. Dalam penilaian empirikal, ia menggunakan kaedah regresi ambang baru yang fleksibel dalam membenarkan kesan faktor pertumbuhan memberi penilaian bergantung kepada sama ada negara-negara yang memperolehi kualiti MCI berada pada paras atas atau jatuh di bawah nilai ambang yang tidak diketahui. Penemuan ini menunjukkan bahawa negara-negara yang memperoleh kualiti MCI pada paras atas anggaran nilai ambang optimum (iaitu rejim MCI tinggi) mampu menterjemahkan faktor pertumbuhan Solow-MRW dan MREGI kepada pertumbuhan yang lebih tinggi berbanding negara-negara yang berada pada paras bawah (iaitu kumpulan MCI rendah). Didapati wujud sokongan yang lemah bagi MSTABI dan tiada sokongan bagi MLEGI bahawa setiap satunya memberi kesan berbeza dalam rejim MCI rendah dan MCI tinggi. Penemuan ini malar terhadap ujian kemandapan ekstensif. Satu implikasi dasar yang penting ialah negara-negara miskin boleh memiliki keuntungan produktiviti yang tinggi daripada input faktor dan fungsi cekap institusi kawal selia kesan daripada peningkatan yang mencukupi dalam kualiti MCI.

Seterusnya, wujud pelbagai jurang dalam perbincangan tentang institusi, FDI dan pertumbuhan. Pertama, bukti-bukti yang mengaitkan FDI-pertumbuhan adalah sangat tidak meyakinkan. Kedua, penyelidikan terkini menekankan peranan penting institusi dalam menerangkan corak paradoks aliran modal asing- dipanggil "Paradoks Lucas". Ketiga, pelbagai keupayaan serapan setempat didapati memainkan peranan penting dalam FDI disebabkan limpahan positif terhadap pertumbuhan. Keempat, kajian terkini yang memberi tumpuan kepada kapasiti serapan setempat tidak membezakan pengalaman berbeza negara-negara maju dan membangun dalam aspek FDI dan infrastruktur institusi. Kelima, kapasiti serapan MSI belum diterokai dalam perkaitan antara FDI-pertumbuhan. Untuk menghubungkan dan mengisi jurang ini, objektif kedua kajian ini meneliti peranan pengantara MSI terhadap kesan pertumbuhan FDI dalam negara-negara maju dan membangun. Penaksir kaedah umum momen sistem (S-GMM) yang mampu mengawal kesan tertentu negara dan masalah endogen semua pemboleh ubah tidak bersandar dipakai dalam rangka kerja pertumbuhan panel yang dinamik. Keputusan berikut diperoleh. Pertama, FDI tidak mempunyai apa-apa kesan langsung yang signifikan kepada pertumbuhan ekonomi dalam semua sampel-iaitu keseluruhan sampel, subsampel negara maju dan membangun – dalam kajian tetapi secara umumnya bergantung pada tahap MSI. Ini menunjukkan MSI menjadi pengantara kesan positif FDI terhadap pertumbuhan ekonomi bagi kedua-dua ekonomi maju dan membangun. Walaubagaimanapun, bukti sokongan gagal diperoleh apabila kedua-dua kumpulan negara dilonggokkan sekaligus dalam keseluruhan sampel. Kedua, keputusan juga mendedahkan bahawa semua ekonomi negara maju telah bergerak di luar skor minima untuk MSI dalam menyerap limpahan positif daripada FDI terhadap pertumbuhan. Berbeza dengan negara-negara membangun di mana nilai minima untuk MSI diperlukan sebelum kesan positif daripada FDI terhadap pertumbuhan bermula. Penemuan ini adalah malar terhadap beberapa ujian sensitiviti. Salah satu implikasi polisi yang optimis adalah ekonomi yang kurang membangun dapat memperoleh faedah



kebijakan yang besar secara relatif daripada limpahan FDI dengan meningkatkan kualiti MSI kepada tahap yang optimum (relatif yang rendah).

Akhir sekali, baru-baru ini terdapat spekulasi daripada beberapa sarjana yang mendakwa bahawa institusi yang lemah adalah punca sebenar kepada hasil dasar yang tidak baik dan tidak stabil. Pandangan mereka menekankan bahawa persetujuan Washington dalam mendapatkan hak polisi mesti dilengkapi dengan memperbaiki institusi. Sastera yang sedia ada tidak membincangkan sama ada data menyokong pendirian itu. Objektif terakhir tesis ini menyumbang kepada perbincangan dalam menyiasat peranan kontinjen yang dimainkan MSI dalam kesan-kesan pertumbuhan inflasi dan turun naik inflasi dalam model pertumbuhan panel dinamik. Menggunakan S-GMM dalam model pertumbuhan panel dinamik, keputusan berikut diperolehi. Pertama, tiada sebarang bukti ditemui bagi keseluruhan sampel tetapi hanya untuk negara membangun dan baru (iaitu ekonomi-ekonomi bukan OECD) dalam menyokong pendapat bahawa MSI dan beberapa komponennya menjadi pengantara bagi kesan pertumbuhan inflasi dan turun naik inflasi terhadap pertumbuhan. Penemuan ini malar dalam beberapa ujian sensitiviti. Negara-negara membangun dan baru boleh mendapat keuntungan kebijakan yang lebih besar hasil daripada usaha-usaha peningkatan kualiti MSI melalui kesan pengurangan terhadap kos pertumbuhan inflasi dan turun naik inflasi.

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## APPROVAL

This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

**Ahmad Zubaidi Baharumshah, PhD**

Professor  
Faculty of Economics and Management  
Universiti Putra Malaysia  
(Chairman)

**Wan Azman Saini Wan Ngah, PhD**

Associate Professor  
Faculty of Economics and Management  
Universiti Putra Malaysia  
(Member)

**Rusmawati Said, PhD**

Associate Professor  
Faculty of Economics and Management  
Universiti Putra Malaysia  
(Member)

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Signature: \_\_\_\_\_

Name of  
Chairman of  
Supervisory  
Committee: **Prof. Dato' Dr. Ahmad Zubaidi Baharumshah**

Signature: \_\_\_\_\_

Name of  
Member of  
Supervisory  
Committee: **Assoc. Prof. Dr. Wan Azman Saini Wan Ngah**

Signature: \_\_\_\_\_

Name of  
Member of  
Supervisory  
Committee: **Assoc. Prof. Dr. Rusmawati Said**

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## LIST OF ABBREVIATIONS

MSI	Market Supporting Institutions
MCI	Market Creating Institutions
MREGI	Market Regulating Institutions
MSTABI	Market Stabilizing Institutions
MLEGI	Market Legitimizing Institutions
FDI	Foreign Direct Investment
S-GMM	System Generalized Method of Moments Estimator
D-GMM	Different Generalized Method of Moments Estimator
TR	Threshold Regression
IVTR	Instrumental Variable Threshold Regression
DPTR	Dynamic Panel Threshold Regression
OECD	Organisation of Economic Co-operation and Development

## APPENDICES

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# CHAPTER 1

## INTRODUCTION

### 1.0 Introduction

This study aims at addressing three important issues on the indirect channels through which institutions influence economic growth. The first issue concerns possibility of the existence of multiple institutional regimes conditioning the growth process. North (1990) observes that strong institutional countries involve a relatively different organization of productions than countries with weak institutions. For instance, countries having weak institutions, among others, are usually associated with weak protection of property rights and contract enforcement, short term contracts, high corruption and rent-seeking activities, low investments, and obsolete and backward technologies.

Furthermore, recent growth models predict that institutions can trap economies in less optimum equilibria, i.e. institutional non-convergence traps, by blocking their transition towards a better, new equilibrium characterized by advance technology and high growth path. In addition, institutions are multidimensional, implying that a weak core institutional dimension that traps economies in low growth path will also influence the *functions* of other lower order institutional dimensions within the trap, through institutional complementarities. For instance, weak institutions protecting property rights and enforcing contracts imply low-constraints (as an intervening factor) leading to weak regulatory institutions. In contrary to these observations and theoretical postulations, overwhelming empirical studies usually treat institutions directly in their influence on economic growth. Recent studies have shown that growth process is far from linear. Therefore, it is highly imperative to study the indirect channels by allowing institutions to index growth process in order to better capture the dynamics of institutions-growth linkages.

The next related issue concerns institutional absorptive capabilities in facilitating the growth-effect of foreign direct investment (FDI) through both capital deepening and induced technological spillovers on host economies. Institutional absorptive capacities characterize host countries' institutional competency to accommodate the linkages of multinational firms' advanced techniques with local firms and economies. For instance, such capacities reflect through better and efficient protection of property rights and contracts enforcement, good quality of regulatory institutions, low corruption and rent-seeking activities, and peaceful environment, among others. FDI by itself has been empirically shown by many studies to have ambiguous effects on growth despite theoretical uptakes.

Moreover, one concern associated with FDI-growth studies is that they do not distinguish FDI patterns of developed countries from developing ones. Recent research shows that both rich and poor countries experience different FDI-induced technological upgrading and impacting growth, and are at the center of insignificant or un-robust results usually found in the literature. This motivates a further study. Therefore, it is important not only to understand the facilitating role of institutional absorptive capacity on FDI-induced technological spillovers effects on host countries but also such mediating process should be distinguished on the basis that less developed countries are systematically different from developed countries in their institutional competencies.

Another important issue that has not received much attention in literature is the contingency role that institutions play on the link between inflation and inflation-volatility with economic growth. Real costs of inflation, especially at high level and its associated variability, are always a great concern for policymakers. It has been argued that weak institutions mediate bad policy outcome and high policy volatility. The indirect role of institutions, it has been argued, is to work through its induced general constraints on policymakers' tendency to resort to distortionary policy and thus reduce the frequency in policy reversals. Beside this viewpoint, a more traditional view explains that constraining pressure from open trade regime is also at work. Within the open economy framework, any acts from policymakers towards unexpected inflationary policy would be met with costly real exchange rate depreciation. It is argued that this pressure keeps inflation low in highly open-economies. However, it is observed that this perspective provides a partial explanation for different inflation rates across countries as shown by the experiences of many highly open-economies. For example, countries like Ghana, Zambia, Nicaragua, Jamaica, Costa Rica, Iceland, Israel, among others, though having highly open-economies have suffered from high inflation, if not hyperinflation episodes (Bruno and Easterly, 1998; Fischer et al., 2002). It is widely acknowledged that many of the highly open-economies experiencing high inflation episodes also have weak institutions. Therefore, a careful study on these two important channels, i.e. institutions and openness pressure, may offer further insight into the real cost of inflation and inflation volatility.

The following discussion will delve into each of these three issues. Section 1.1 provides a brief background on each of the issues highlighted above followed by Section 1.2 which discusses extensively on research issues and problems. Section 1.3 outlines research objectives while Section 1.4 discusses the significance of the study. Lastly, the organization of the study is provided in Section 1.5.

## **1.1 Research Background**

The question has often been asked why is it that some countries produce higher output per capita than others and successfully take-off along the high growth path, while others, mainly the developing ones, produce much less and are trapped in low growth



equilibrium. Standard growth theories traditionally point to the former's ability to accumulate productive factors of physical and human capitals, to being innovative and adopting new technologies. On the other hand, [North \(1990\)](#) and others argue that it is the underlying institutions providing incentive-rewarding structures that influence individual choices and abilities to accumulate these standard productive factors and their productivities. In particular, institutions that ensure better protection of property rights would create sufficient *economic incentives* for individuals to invest their resources (e.g. in business, land, labor, skills or education and training, and technological improvements) and appropriate its due returns (based on individuals' efforts and talents), and organize efficient modes of productions.

Weak institutions are likely to be inadequate in protecting private property ownership rights and enforce contract. This is the result of low check-balance constraints on those holding powers, leading to various expropriation activities. These weak constraints induced predatory behaviors are likely to be reflected through judicial manipulations, excessive taxation, entry barriers to new entrepreneurs or technologies, and corruption or inefficient bureaucracy ([Asoni, 2008](#)). Such institutional environment would adversely affect the incentives to accumulate capital, knowledge, and undertake innovation and entrepreneurship and improve technologies, hence, lowering economic growth.

The accumulated empirical evidences show countries with relatively good quality institutions that ensure protection of private property rights from various forms of expropriation or opportunistic behaviors, create uneven playing fields in economic opportunity (i.e. broad-based distribution of property rights), and enforce contracts have sustained high economic performance ([Knack and Keefer, 1995](#); [Hall and Jones, 1999](#); [Acemoglu et al., 2001, 2002](#); [Rodrik et al., 2004](#); [Acemoglu and Johnson, 2005](#); [Bhattacharyya, 2009](#); and [Siddiqui and Ahmad, 2013](#)).

Theoretically, the most appealing mechanism among economists in modeling the links from institutions (e.g. protecting property rights) to economic performance is the *social conflict view*.<sup>1</sup> This view not only lays out the framework of how a particular equilibrium institutional arrangement emerges but also how it persists over time. It rests on the *distribution* of bargaining power among different social actors having conflicting interests and seeking to shape equilibrium institutional outcome that align with their particular preferred distribution of resources. Different institutional arrangements (i.e. rules of the game) differ in their distributions of resources, thus competing interests groups armed with their relative distribution of these bargaining powers have the incentive to influence institutional arrangements to work in maximizing their payoffs (i.e. redistributing resources to themselves).

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<sup>1</sup> [Acemoglu \(2003\)](#) provides an excellence discussion on how social conflict views are the most suitable tool relative to alternatives (i.e. political Coase theorem and theories of belief differences) in modeling the emergence and persistence of institutions.

Along this line, researchers (Acemoglu et al., 2005; Acemoglu, 2003; Acemoglu and Robinson, 2000, 2008) devised a model to capture the emergence and persistence of growth-promoting “economic institutions”<sup>2</sup> based on two types of power, namely *de jure* power (political power provided by constitutions or written laws) and *de facto* power (economic power born out of relative economic affluences defined by economic resources). Since there is a commitment problem,<sup>3</sup> the exercising of these two powers by competing social actors determines the emergence of equilibrium economic institutions.<sup>4</sup> Persistence of weak economic institutions depends on the extent of limitation of rent-extraction by the power holders. If more rent can be extracted, the incumbent power holders have the incentive to resist any changes to the status quo; hence growth-reducing economic institutions may persist. Such environment can be principle barriers to economic growth when economic changes and technological adoptions and innovations are seen by the incumbent (i.e. political losers) as the forces eroding their *de jure* political power status quo (see Acemoglu and Robinson, 2000). Growth-promoting economic institutions can, therefore, arise and persist when there exists *constraints* on those holding powers, and these powers are generally shared among relatively broader groups.<sup>5</sup>

Overwhelming existing empirical evidences confirm direct effects of institutions on growth. As Figure 1.1 below shows, regardless of how institutions are measured, they have strong direct positive effect on growth. Despite voluminous evidence on direct positive institution-growth linkages, few empirical studies have documented the indirect linkages. The following sub-sections introduce channels encompassing indirect influences of institutions on long-run economic growth.

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<sup>2</sup> It is understood as a *cluster* set of institutions providing security of property rights and relatively equal access to economic resources to a broad cross-section of country (Acemoglu et al., 2005). The implied weak economic institutions, thus, suggest not only a lack of property rights protection but also, if any, such well-protected rights are only distributed among a very small fraction of the population, e.g. the elites and powerful groups.

<sup>3</sup> Meaning that if all groups consensually agree to the best equilibrium outcome of economic institutions, group/individuals with *dominant* political power cannot pre-commit themselves not to use the power for their best self and/or group interest at the expense of the rest.

<sup>4</sup> *De jure* political power can be employed, for example, through executive, legislative, or judicial bodies, and *de facto* political power (or economic power) through cooperation or collective action among individuals with economic resources (e.g. industrialists, big conglomerates) to finance or lobby a bargain.

<sup>5</sup> If it is shared only by a small group, the outcome would be an oligopolistic system which ensures only the protection of small groups at the expense of the rest.

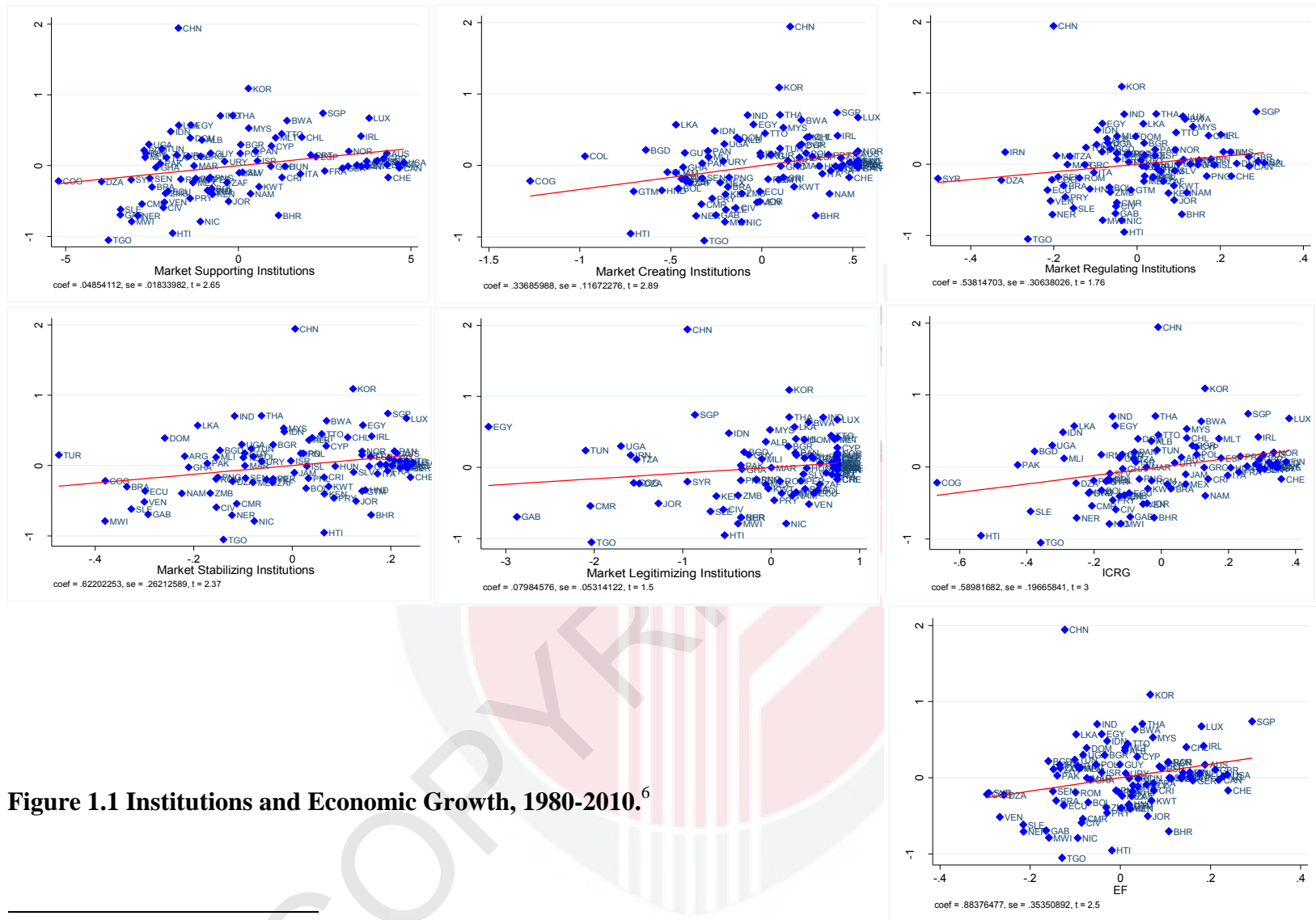


Figure 1.1 Institutions and Economic Growth, 1980-2010.<sup>6</sup>

<sup>6</sup> Market Supporting Institutions (MSI) is measured as first principle component on ICRG's rule of law and order (measure of Market Creating Institutions, MCI), EF's regulation of credit, labor and business (measure of Market Regulating Institutions, MREGI), EF's sound money index (measure of Market Stabilizing Institutions, MSTABI) and Polity IV's democracy index (measure of Market Legitimizing Institutions, MLEGI). ICRG is the twelve components International Countries Risk Guide of political risk service group, EF is economic freedom index of Fraser Institute. See Appendix D for detailed definition and sources.

### 1.1.1 Institutional Traps and Economic Growth

Theoretical predictions on emergence and persistence of institutions described above have implication for multiple institutional regimes. A model of appropriate growth institutions by [Acemoglu et al. \(2006\)](#) and [Aghion and Howitt \(2009\)](#), based on distance to technological frontier, predicts that weak institutional quality can block and trap countries' transiting from one inappropriate growth arrangement (i.e. investment-based growth strategy)<sup>7</sup> to a better equilibrium (i.e. innovation-based growth strategy) in the long run as the economy moves closer to the technological frontier. The so-called institutional non-convergence trap, associated with backward technologies and low growth path, can arise when investment-based strategy enriches and creates its own followers and when their economic power (*de facto* power) buys political power (*de jure* power), making it more difficult to reverse the institutional arrangement that has an economically and politically powerful constituency ([Acemoglu et al., 2006](#)).

This comes along with other theoretical predictions such as the threshold model that predicts different growth paths depending on the critical threshold level of human capital (see [Azariadis and Drazen, 1990](#)). Thus, the critical level of embedded economic institutions providing protection of property rights and the fact that such protection is distributed across wide-sections of populations would necessitate a sufficient incentive-rewarding environment that is conducive to productive activities. Similarly, the presence of persistence weak institutions can trap countries in backward technologies and inefficient organization of production, as [North \(1990, pp. 64-65\)](#) observed:

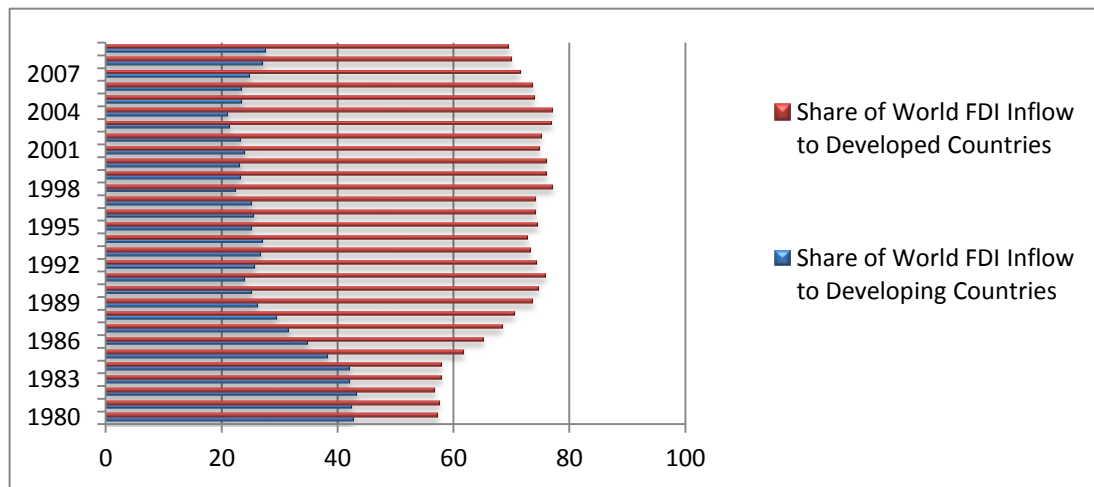
We have only to contrast the organization of production in a Third World economy with that in an advanced industrial economy to be impressed by the consequences of poorly defined and/or ineffective property rights. Not only will the institutional framework result in high costs of transacting in the former, but insecure property rights will result in using technologies that employ little fixed capital and do not entail long-term agreement. Firms will typically be small (except those operated or protected by the government) ... an inability to get spare parts or a two year wait to get a telephone installed will necessitate a *different organization of production* than an advanced country ... A bribe sufficient to get quick delivery ... resultant shadow transaction costs significantly alter relative prices and consequently the technology employed. (*Italic emphasized*)

Institutions can therefore obstruct or facilitate the conversion of growth determinants within the growth process. Different institutional settings thus produce different growth equilibria or regimes which likely render the productivity of growth determinants to differ (i.e. parameter heterogeneity) across countries.

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<sup>7</sup> In the long-run, this strategy will become more costly as an economy approaching closer to technological frontier requires best use of innovation opportunities (i.e. Schumpeterian creative destruction rationale).

### 1.1.2 Institutions, FDI, and Economic Growth



**Figure 1.2 Shares of World FDI Inflows in Developed and Developing Countries**  
(Source: UNCTAD, Online)

With the assumed free-flow and diminishing returns of capital, standard neoclassical theory predicts that capital will flow from capital-abundant-low-return developed countries to capital-scarce-high-return developing countries. The theory predicts that this would happen until returns to investments in all countries are equalized. However, this does not hold as depicted in [Figure 1.2](#). It shows that capital (e.g. FDI) does not flow much from rich to poor countries but the reverse has been observed in recent years ([Lucas, 1990](#)).

Researchers have tried to explain this so-called “Lucas paradox” in terms of differences in host countries’ characteristics such as technological differences, missing factors of productions, government policies and institutional infrastructure ([Alfaro et al., 2008](#); [Papaioannou, 2009](#), [Okada, 2013](#)).<sup>8</sup> The empirical evidence shows that institutions stand out prominently in explaining this paradox. This points to the possibility of some contingency effects from a third factor such as institutions.<sup>9</sup> Institutional “absorptive capacity”<sup>10</sup> can be a crucial factor in absorbing FDI inflows and translate its spillovers into growth benefits for host economies. Institutional absorptive capacity reflects the degree of friendly, favorable and low-risk environment that allows firms to undertake

<sup>8</sup> [Alfaro et al. \(2008\)](#) and [Papaioannou \(2009\)](#) show that capital does not flow to poor countries because of weak institutional infrastructures.

<sup>9</sup> As of between 1991 to 2002, over 1500 changes to the FDI regulations has been made more favorable as compared to less than 100 changes that are made less favorable ([UNCTAD, 2003](#)). In 2001, out of the 208 changes to the FDI laws made by 71 countries, 194 (93%) were more favorable ([UNCTAD, 2002](#)).

<sup>10</sup> [Cohen and Levinthal \(1990, p.128\)](#) define absorptive capacity as the ability of the firms to recognize the value of new, external information, assimilate it, and apply it to commercial ends.

such a process. IMF (2003) in its World Economic Outlook (WEO) reports that countries with better institutional quality and government transparency find it easier to attract FDI and are less prone to “sudden stop” in capital flows and capital account crisis. Some of these points have already been empirically proven in recent literature (see for example, cross-countries study by Kose et al., 2011; industry level study by Eichengreen et al., 2011).

It is well-known that multinational corporations are profit-maximizing entities, thus their decisions to invest in foreign countries critically depend on the expected returns and perceived risks to their investments. Better incentive-rewarding structures encourage foreign investors to undertake their investments on a long-term basis. And FDI represents crucial sources of capitals, technology transfers, diffusion and know-how which can bring tremendous benefits for the host economy.<sup>11</sup> It also induces technological spillovers and tangible and intangible augmentations of existing human capital stocks (e.g. managerial skills, training and operating technological advanced machines) in the production process. It is widely acknowledged that FDI can also increase competition among local firms as domestic firms have to keep up with foreign firms by investing in innovations (Balasubramanyam et al., 1996).

According to the endogenous growth theory, these factors justify the importance of FDI in influencing long-run growth rate largely because spillovers and externalities ensure the social rate of return would be greater than private rate of return. Thus, FDI, via capital deepening and knowledge spillovers, is one of the fundamental engines of economic growth, thus its attraction is of paramount importance to policymakers. However, without adequate absorptive capabilities (i.e. conducive institutional climate), the benefits of FDI spillovers on economic growth may be muted, thereby making alignments of private benefits with social benefits less likely.

### ***1.1.3 Institutions, Policy, Policy-volatility and Economic Growth***

Institutions can also play contingency roles on the effects of macroeconomic policy and uncertainty with regard to policy changes on economic growth. Policy packages enshrine in the so-called Washington consensus that reflect some consensual areas for policy reforms thought to be good for growth by economists and some leading international organizations (e.g. the World Bank and International Monetary Fund, the IMF) are now showing heavy institutional flavors. Recently, the consensual policies of

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<sup>11</sup> Exogenous growth theory views FDI as another type of capital. More FDI is expected to increase investment volumes and/or its efficiency. With diminishing return assumption, it predicts that FDI only affects the steady state level of income but not the long-run growth rate. Endogenous growth theory, on the other hand, views FDI, in addition to being an additional capital, as also generating technological diffusion and other spillovers embodied with FDI through the presence of MNCs, thus predicting that FDI affects long-run growth rate of the host economies by augmenting their technological stocks and progress.

lowering budget deficit, reorientation of public expenditure, tax reforms, financial liberalization, openness to trade and capital inflows, among others, are widening to incorporate elements such as corporate governance, anti-corruption, independent central banks, social safety nets, and other elements that are strongly institutional in nature (Rodrik, 2006). Hence, the focus shifts from the original Washington-consensus' elements of perceived good policy to one that is complemented by institutional factors that support market-economy born out over time from a realization on the policy-makers and practitioners of the Washington consensus. This was noted by Rodrik (2006) in his review on World Bank (2005) *Economic Growth in the 1990s: Learning from a Decade of Reform*. According to Rodrik “the standard policy reforms did not produce lasting effects if the background institutional conditions were poor. Sound policies needed to be embedded in solid institutions” (Rodrik, 2006, p. 978), a viewpoint shared by this study.

The shifting from ‘getting policy rights’ to be complemented by ‘getting institutions rights’ lead some researchers notably Acemoglu et al. (2003) to argue that distortionary macroeconomic policies are the symptoms of weak deep-seated institutional infrastructure. World Economic Outlook of the IMF (2003, pp.107-108) succinctly asserts that “... [economic] instability has often been attributed to poorly managed macroeconomic policies ... weak institutions may tend to foster bad policies and undercut the resilience of economies to exogenous shocks ... poor institutions may lead to more volatile, crisis prone economies compared with situations where institutions are better developed.” Thus, in this sense, persistent weak institutional infrastructure may be reflected through various distortionary policies (e.g. high inflation, overvalued exchange rate, large budget and current account deficits) making persistently unstable macroeconomic environments.

Many countries with weak institutions were found to experience high volatility and crisis and therefore were more susceptible to growth collapse (Rodrik, 1999). Other researchers conjecture that weak institutions reflect unconstrained powerful elites (e.g. politicians, various interest groups), allowing them to design group-interest distortionary policies to preserve their power and redistribute resources to themselves. These distortive policies are susceptible to policy reversals when these groups are replaced or when a crisis occurs (see Acemoglu et al., 2003, 2008, 2005; Rodrik, 1999).

## 1.2 Research Issues and Problems

A shift of focus towards the in-depth role of institutions as the conditional factor indexing or augmenting the influences of growth determinants on long-term economic growth that this study focuses on is expected to offer further insight into the dynamic influence of institutions on economic growth. This study argues that institutions work dynamically in a more indirect manner towards growth, functioning as a kind of the underlying third factor, conditioning the productivity of the growth determinants. Based

on this line of thought with reference to indirect channels, there are three essentially important encompassing issues concerning contingency roles of market-supporting institutions facilitating growth process.

First, it is related to institutional induced growth regimes mediating growth effects of conventional human-capital-augmented-Solow growth determinants (see [Mankiw et al., 1992](#)) and complements the other dimensions of institutions supporting market economy in its influence on growth. This research issue concerns institutional indexation on the growth process generating different growth regimes within which productivities of capitals and growth effects of lower-order institutional dimensions differ (i.e. parameter heterogeneity). The second issue revolves around contingency effects of institutions (i.e. institutional absorptive capabilities) on the marginal growth effect of foreign direct investment. The last issue concerns mediating effects of institutions on the links between inflation and inflation-volatility with economic growth. These are discussed in depth below.

### ***1.2.1 Institutions and Multiple Growth Regimes***

The existence of different growth regimes (e.g. parameter heterogeneity) based on various indexing factors such as stages of development, education, level of financial market development, and trade have been empirically documented in the growth literature ([Azariadis and Drazen, 1990](#); [Durlauf and Johnson, 1995](#); [Papageorgiou, 2002](#); [Masanjala and Papageorgiou, 2004](#); [Alfaro et al., 2004, 2010](#); [Durham, 2004](#); [Azaman-Saini et al., 2010b](#)). It appears that institutions have not been given their rightful role as a leveraging variable despite the facts that institutions are deep-rooted factors underlying the socio-political and economic fabric of a country.

Theoretically, it has been argued that low institutional quality traps countries in low growth equilibrium, as predicted by the model that considers appropriate growth institutions ([Acemoglu et al., 2006](#); [Aghion and Howitt, 2009](#)). Different institutional regimes generate different growth paths for the economy. As North (quoted in the preceding section) had observed, weak institutions protecting property rights would result in many fundamental bottlenecks to economic activities, generating a mode of production that differs from countries with better institutional qualities. Some of these bottlenecks include low investments, obsolete technology, bureaucratic inefficiencies and expropriation in the form of corruption.

It is to be noted that the bulk of the literature has only focused on direct monotonic effects of institutions, largely ignoring the possibility of different institutions-induced growth regimes. Thus, naturally the question arises whether productivity of growth determinants differs in countries with low and high quality institutional settings. In other words, can different institutional infrastructures produce different growth



equilibria characterizing various groups of countries? Only very few recent evidences have been indirectly documented on this issue, using different methods (Minier, 2007; Owen et al., 2009). Even then the evidences are conflicting. More evidence based on more flexible models and a broad cross-section of countries collected over recent years is warranted in order to shed additional light on the importance of institution-induced multiple growth regimes.

Furthermore, institutions are broad based concepts understood as formal rules (e.g. formal-constraints such as rule of law) and informal norms (e.g. culture, social norm) functioning as *constraints* in governing and shaping human interactions (North, 1990). Economists often focus on one basic type of institutions protecting private property rights (i.e. rule of law or constraints on politicians, officeholders, interest groups, among others) which is critical to the existence of market economy. Recently, some economists have conceptually unbundled broad cluster institutions into various market-supporting components. Rodrik (2000, 2005), for example, classifies institutions that support market economy (market-supporting institutions, MSI) into four components that *function* to create markets (market-creating institutions, MCI, the core component), regulate the market (market-regulating institutions, MREGI), stabilize the market (market-stabilizing institutions, MSTABI) and legitimize the existence of market (market-legitimizing institutions, MLEGI).

Core component of MSI, the market-creating institutions, briefly discussed and basically captured in the theoretical framework above, are the institutions that function to protect property rights and ensures contract enforcement.<sup>12</sup> The property rights component is for regulating the relationship between ordinary citizens or owners of private properties and government and/or powerful elites (i.e. vertical relationships) while contracting enforcement component regulates the transactions between private parties such as creditors and debtors (i.e. horizontal relationship) (see Acemoglu and Johnson (2005) on this further classification). Thus, the rule of law (written law and/or social customs and norms that define how property can be legally acquired) and its enforcement, constraints on executive powers, independent judiciary, for instance, are measures devised to protect ownership of private properties from public or private predatory behaviors (Asoni, 2008). These are a cluster of property rights and contract institutions (Acemoglu and Johnson, 2005; Acemoglu et al., 2005). Market-creating institutions are the underlying core institutions since without them markets either do not exist or perform very poorly (Rodrik, 2005; Bhattacharyya, 2009).

Furthermore, Rodrik (2005) noted that economic growth and development are dynamically complicated processes; therefore institutions that support such process also

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<sup>12</sup> Recently, Jellema and Roland (2011) show that institutions which ensure limited executive power with checks and balance constraints have a robust direct impact on economic performance while other institutional dimensions have a fragile link. This evidence supports the direct role of market-creating institutions.

need to better reflect more than just institutions that protect property rights and enforce contracts, i.e. market-creating institutions. Although such institutions are a necessity for the existence and better functioning of the market economy, they are insufficient to sustain it. In this regard, it is also crucial to consider other complementary dimensions of market supporting institutions in promoting long-run economic growth by sustaining better and efficient functioning of the markets. For example, market-regulating institutions function to provide regulatory frameworks, such as for goods, services, labor, assets and financial markets, in order to prevent various market failures and to sustain the growth momentum in the long-run (Rodrik, 2000; Bhattacharyya, 2009). Market-stabilizing institutions manage and insulate various macroeconomic shocks that inevitably hit the economy, for instance financial crisis, macroeconomic volatility and other cyclical fluctuations. And finally, market-legitimizing institutions function to deal with social conflicts, provide social protection and redistribution to those negatively affected by various economic backdrops.<sup>13</sup>

Well-functioning markets are always embedded within broader mechanisms of collective governance (Rodrik, 2011). Thus, it is intuitively expected that various institutional dimensions interact with one another in influencing economic growth. Aoki (2001), Amable (2000) and Boyer (2005) argue that there are strategic linkages and complementarities across different domain of institutions which together form part and parcel of the inter-related equilibrium whole, as any change in one domain will influence others.<sup>14</sup> Furthermore, in essence, the Acemoglu's et al. (2005) and Acemoglu-Robinson's (2000) theoretical framework on the emergence and persistence of economic institutions rests on *constraints* that emerge to check and balance the power structure of elites and powerful interest groups so that institutions that protect private property rights across a broad section of people may prevail and persist.

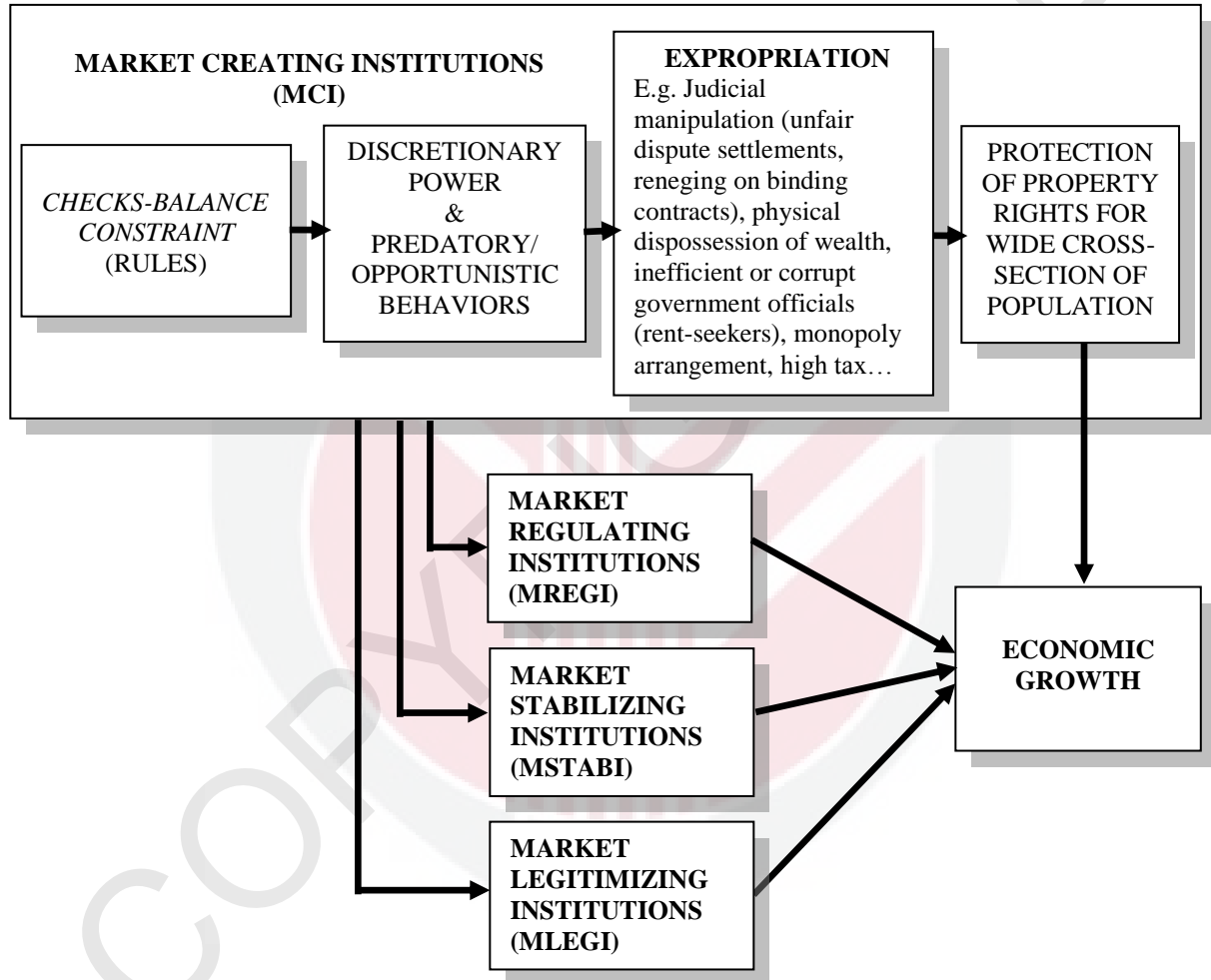
Building on this theoretical argument and connecting it to other dimensions of market-supporting institutions, it is clear that unconstrained authoritative powers whether *de jure* or *de facto* imply that Rodrik's market-regulating, market-stabilizing and market-legitimizing institutions may also be unable to function effectively in promoting growth. Thus, the existence of institutional non-convergence trap predicted by Aghion and

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<sup>13</sup> Rodrik, (2005) noted one good example of the function of market-legitimizing institutions when there are side effects of the structural transformation process. Such a process may cause various labor movements from agriculture (i.e. rural) to modern sectors (manufacturing and services). This may uproot some traditional support systems (e.g. a common basket support of the family as individuals work in a common family rice field, the so-called traditional support system and risk-sharing institutions). Any macroeconomic shocks or crisis (recession or depression) which occur would hit hard those without this traditional support. Thus, to legitimize the existence of this process, some sort of institutions are required to provides some basic safety net to those affected and to prevent social conflicts that may arise; see also Rodrik (1999, 2000).

<sup>14</sup> Research on "institutional complementarities" is a very recent phenomenon. Gagliardi (2008) suggests, based on this recent literature, that *interacting* institutions may provide better insight than the conventional recognition that "institutions matter". See also Casson et al. (2010).

Howitt (2009) and Acemoglu et al. (2006) and observed by North (1990) would also imply that those countries trapped in low growth path, defined by weak constraints (i.e. market-creating institutions) are also likely to have experienced weak qualities of market-regulating, market-stabilizing and market-legitimizing institutions, therefore, reinforcing the existence of low growth equilibrium. Figure 1.3 below further illustrates the argument.



**Figure 1.3 Channels of Influence from MCI on Other Components of MSI.**

Lack of adequate constraint on those with authority (*de jure* power) and influential groups (i.e. interest groups with *de facto* power) would necessitate more discretion and opportunistic behaviors and, thus, weaken protection of private property rights and contract enforcement. In such environments with low constraints (i.e. weak quality of

market-creating institutions), the functioning of market-regulating institutions to prevent various market failures will also be negatively affected. This would result in frequent bribery and corruption or rent-seeking activity, for instance, to bypass the regulations, prevent competition, or escape taxation by various business groups or individuals.

Similarly, market-stabilizing institutions may function as tools to serve group or individual interests instead of stabilizing macroeconomic conditions and coping with shocks. Historical records of Ghana as pointed out by [Acemoglu et al. \(2003, 2008\)](#) provide a good example. Immediately after independence, under a low constraint setting, the Ghanaian ruling elites/politicians employed the currency exchange board to set highly distortionary policies to redistribute resources from rural to urban class supporters.

Finally, market-legitimizing institutions are also likely to malfunction with low quality of constraining rule (i.e. low quality of market-creating institutions). One feature of modern economy, for instance, is that it is usually susceptible to various shocks. When these unforeseeable shocks or crises occur, income and employment are disrupted, and various social problems would surface. Such occurrences necessitate institutions to manage these social conflicts and ensure social cohesion and harmony ([Rodrik, 2000](#)). The provision of social safety nets and insurances to those affected are examples of such institutions ([Rodrik, 1999](#)). Such institutions are critical to preserve social coherence (e.g. social contracts among various sections of the country) thereby preventing any possibility of social collapse.

As a result of such institutions, the existence of the market economy is legitimized. However, when the quality of check-balance constraints is weak, it is unlikely (either through spillovers or complementarities) that market-legitimizing institutions would be able to function effectively in providing such services that various sections of the economy need. [Rodrik \(1999\)](#) documents important evidences of some instances of growth collapse once the economy experiences crisis in countries with weak quality of these institutions. Therefore, social accountability from the government may reflect the quality of market-legitimizing institutions which may further depend on the quality of core institutional constraints (i.e. market-creating institutions).

In line with this thinking, a model by [Aidt et al. \(2008\)](#) predicts two growth regimes defined by the quality of political institutions. They theoretically and empirically show that in low-political accountability, corruption has a negligible effect on growth while, in high-political accountability regime, reduction in corruption has a huge impact on economic growth, both in the short- and long-run.<sup>15</sup> These intuitions and scarce recent evidence may suggest that the core market-creating institutional dimension has

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<sup>15</sup> Some scholars treat corruption as reflecting the quality of one dimension of institutions (see for example, [Hall and Jones, 1999](#); [Knack and Keefer, 1995](#)).

*spillovers* complementarities on the *functioning* of market-regulating, market-stabilizing and market-legitimizing institutions, besides having conditional impacts on the productivities of human-capital-augmented-Solow growth determinants.

Based on these lines of thinking this study hypothesizes that the growth effects of human-capital-augmented-Solow growth determinants, and market-regulating, market-stabilizing and market-legitimizing institutions are regime specific, defined by market-creating institutions. This hypothesis would allow the present study to go a step further to focus not only on market-creating-institutions-conditional growth regimes but also examine the institutional complementarities between market-creating institutions and other dimensions of cluster market-supporting institutional matrix in the growth process.

### ***1.2.2 Institutional Absorptive Capabilities, FDI and Economic Growth***

This sub-section highlights two issues and their associate problems. The first one concerns the importance of potential institutional absorptive capabilities in facilitating FDI inflows and spillovers on local economy that many studies do not take into account when studying FDI-growth nexus. The second issue rests on the fact that recent studies that examine the contingency role of various third factors on FDI-growth relationship do not take into account the different FDI patterns across stages of economic development. These complementary issues and problems are discussed in greater detail below.

Despite theoretical justification for the importance of FDI as the source of not only capital but also an important driver of technological transfers and diffusion for the recipient economies, empirical evidences on the growth-effect of FDI are known to be quite inconclusive (Herzer et al., 2008; Libsey and Sjöholm, 2005). For instance, FDI was found affecting growth positively in a number of studies (Li and Liu, 2005; Baharumshah and Thanoon, 2005) while a series of other studies failed to find such effects or were unable to establish a robust positive effect (Choe, 2003; Soto, 2003; Carkovic and Levine, 2005).

The occurrence of such mixed results might be explained by a number of contingent factors that had not been taken into account in these empirical studies.<sup>16</sup> In this respect, host country institutional characteristics such as the extent of property right protections, degree of political or government stability, corruption, bureaucratic quality, and government intervention in economic activity, and stability of macroeconomic environment may influence not only the inflows of FDI (De Mello, 1997; Globerman

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<sup>16</sup> Beneficial effect of FDI on growth may arise when contingency effects are taken into account. Positive growth-effect of FDI kicks in once the local financial market development exceeds a threshold level (Azman-Saini et al., 2010a). Positive significant effect of FDI on growth has also been shown to be contingent on level of economic freedom exists in the host economy (Azman-Saini et al., 2010b).

and Shapiro, 2002) but also act as absorptive capacities of host-economies to absorb the FDI induced technological transfers (Kemeny, 2010) and potentially facilitate spillovers on economic growth.

In this regard, various important absorptive factors thought important for growth-effect of FDI inflows and spillovers are documented in the literature. Earlier influential studies found that FDI positively affected growth when countries' trade policy orientations (Balasubramaniam et al., 1996) and the level of human capital (Borensztein et al., 1998) are taken into account. Recent evidences also show a number of other absorptive capacities of host country that render significant growth benefits of FDI, for instance, when financial markets are well-developed (Azman-Saini, et al., 2010a; Alfaro et al. 2010, 2004; Choong et al., 2010; Durham, 2004; Hermes and Lensink, 2003), when countries' businesses and labors are not excessively regulated (Busse and Groizard, 2009), and also when higher level of economic freedom was available (Azman-Saini et al., 2010b; Durham, 2004).

To what extent do Rodrik's four-components-market-supporting institutions fit in as absorptive capacities to FDI-growth nexus? Can they facilitate FDI spillovers on host countries' economic growth differently, that is, in developed and developing countries? Empirical examination would provide answers to these questions. Potentially, each component of market-supporting institutions, namely market-creating (MCI), market-regulating (MREGI), market-stabilizing (MSTABI) and market-legitimizing (MLEGI) institutions may represent contingent third factors likely to facilitate spillovers of FDI on growth.

The most basic investor rights is the rights to property and its control rights (be they foreign investors', MNCs' or domestic entrepreneurs') are all upheld by rule of law and its enforcement which reflect MCI. Thus, better protection and enforcement of these rights induce a safe environment for foreign-held assets and businesses from arbitrary expropriation, both directly and indirectly. In addition, an effective, impartial and efficient regulatory system regulating economy (i.e. MREGI), well-functioning macroeconomic institutions (i.e. MSTABI) that can effectively deal or insulate harmful shocks such as financial crisis, are necessary to ensure healthy and stable macroeconomic conditions. These healthy macroeconomic conditions such as small and sustainable budgets and current account balances, low and stable inflation are all critical to foreign investments and MNCs' presence. Investors are also sensitive to perceived stable, credible, and honest governments that are able to deal and prevent the occurrence of social conflicts and are able to maintain social stability among different quarters of the population (i.e. MLEGI). A case in point would be building social coherence through social insurance such as social security and unemployment benefits.

All these may represent important 'institutional competencies' that reflect the degree of conduciveness to effectively absorb FDI and facilitate its spillovers and technological

transfers through various backward and forward linkages between comparatively advanced MNCs and local indigenous firms and the economy as a whole. To this end, this study seeks to answer the queries raised earlier regarding the contingency roles of the four-components-market-supporting institutions on the links between FDI spillovers and host country economic growth.

As indicated above, most of the past studies on the influences of contingency factors on FDI-growth nexus do not account for the various stages of development.<sup>17</sup> These studies assume that all countries' experiences with FDI inflows are the same regardless of whether they are less developed (LDCs) or developed countries (DCs). Hence, if they were to improve their institutional absorptive capacities, FDI-growth relationship would be enhanced in the same way across countries. Such an assumption ignores the fact that LDCs' institutional absorptive capacity is relatively well below those of DCs and has high variations. Hence, LDCs may exhibit relatively different patterns of induced FDI-spillovers. Furthermore, DCs usually possess high quality of institutions which necessitate a different pattern of FDI induced flows and spillovers. Indeed, this may well be reflected in the paradox pattern of capital flows across countries—the Lucas paradox—observed by [Lucas \(1990\)](#).

A sufficiently high quality of institutions and other infrastructures observed in developed countries make them capable of absorbing any FDI inflows and facilitate its spillovers. In fact more than 70 percent of FDI inflow are between the triads (Japan, US and EU) while developing countries receive only a fraction of about 30 percent of the inflows ([Blonigen and Wang, 2005](#); see also [Figure 1.2](#) above). Therefore, for any policy implication for developing countries drawn on the ground of the mixed sample is likely to be inaccurate. [Kemeny \(2010\)](#) further qualifies this line of thinking. The author investigated “social capability”, i.e. technological and institutional competencies, as the absorptive factor in facilitating FDI induced technology-upgrading in host economies. He shows that FDI does stimulate the upgrading of technology in host countries, and that such upgrading process is relatively stronger in poor countries endowed with high social capabilities. In rich countries, similar process is weak and almost independent from social capability.

This confirms [Blonigen and Wang \(2005\)](#) that pooling rich and poor countries together can obscure the interaction, and in this case between FDI and social capability in stimulating technological upgrading. Thus, FDI spillovers on local economies are not simple and straightforward processes. They depend not only on better absorptive capacities (human capital, social capability or institutional infrastructure) but also such absorptive capacity induced FDI spillovers may further differ across levels of economic development of the host countries. In line with these, this study seeks to shed additional insight on the likely absorptive capabilities of market supporting institutions on FDI-

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<sup>17</sup> Example of these studies are [Alfaro et al. \(2004\)](#), [Azman-Saini et al. \(2010a,b\)](#), [Durham \(2004\)](#), [Busse and Groizard, \(2009\)](#), among others.

growth nexus. It investigates the contingent role of four-components-market-supporting institutions on FDI spillovers on growth. If such a role exists, are there any differences between developing and developed recipient countries?

### ***1.2.3 Institutional Contingency, Inflation, Inflation-volatility and Economic Growth***

Welfare costs of inflation and inflation-volatility are always a concern. This study approaches this issue from a contingency role of institutions (i.e. “institutional channel”) and also takes into account theoretical reasoning and empirical evidences that suggest that countries with greater degree of trade openness would tend to experience lower rate of inflation (i.e. “openness channel”).

Low and stable inflation has been viewed as an important ingredient for economic growth (Blanchard et al., 2010; IMF, 2005). High inflation costs scarce economic resources and distorts relative prices (i.e. market signals) and adds extra cost as individuals and firms source for information to adjust to the changing relative prices. For example, firms may prefer short-term monetary contracts and invest in short-term assets, and lenders may impose additional inflation risk premiums which increase real cost for the borrower. These would harm economic growth. Despite this widely shared view,<sup>18</sup> many countries still continue to experience pervasively high inflation and hence slow growth over long periods of time. The question then arises as to why, despite disastrous welfare cost, policymakers are still resorting to inflationary policy. Are they shortsighted and adopting wrong economic models or theory, leading to disastrous policy outcomes of high inflation? Acemoglu et al. (2003, 2008) conjectured that distortionary policies are put in place due to weak institutional constraints on policymakers and power holders.

The debate centers on the view that distortions and instability in macroeconomic policies, which reduce long-run growth, are the reflections of weak deep-rooted institutions. Empirically, policy variables loss power in explaining growth volatility when institutional variable is included in the regression, which Acemoglu et al. (2003) interpret it as a validation of their ‘suspicion’ that macroeconomic instability and crisis reflect not the policy distortion and mismanagement but rather symptoms of the underlying causes of poor institutions.<sup>19</sup> Recent evidence has emerged in favor of Acemoglu et al.’s contention; for example see Calderón and Fuentes (2012) among others.

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<sup>18</sup> In fact, the trend is that many countries, especially emerging market and developing countries are now seeking to fight inflation and make it stable and less volatile through formal or informal adoption of inflation targeting regime that institute rules rather than discretion in the conduct of monetary policy (see IMF, 2006, 2005).

<sup>19</sup> Their proxies for economic crisis are large drop in output; their policy variables comprise of inflation, government consumption, exchange rate overvaluation, and finally their volatility measure is output volatility (standard deviation of growth rate of per capita output).



In relation to this issue, one commonly held view suggests that different conducts of monetary and fiscal policies are responsible for different cross-countries inflation experiences. For instance poor countries' structural characteristics (e.g. technological constraints via inability to build sophisticated tax system, lack of tax collection capacities due to large size of the agricultural sectors, high tax collecting cost, and tax evasions) may negatively affect their governments' abilities to collect tax. Thus, poor countries may rely heavily on inflation tax to finance their expenditure (Aisen and Veiga, 2006).

Cukierman et al. (1992) devise a model incorporating political instability and polarization characterizing political system (more narrow distribution of power towards one group, e.g. small elites or politicians). Their model formulated the reasons why equilibrium seignorage revenue, hence inflation rate, differs so markedly across countries and even among those that share similar level of development and economic structure. The model suggests that higher degree of political instability and polarization predict higher level of inflation tax. They empirically validated this prediction and it was subsequently confirmed by the findings of Aisen and Veiga (2006), among others. Thus, it follows that government practice of raising revenue through seignorage (i.e. inflation tax) would likely be frequent in institutionally weak countries.

The above argument is in line with Acemoglu et al. (2008) who claim that bad policies would arise and persist if preferences of the politicians or others holding power are not aligned with the rest of the country. In such situations, policy makers would resort to distortionary monetary policy (e.g. high inflation) as a tool for redistribution. Thus, better institutional quality would induce built-in check-balance constraints on policymakers, minimizing the possibility of their resorting to distortionary policies of high inflation. Institutions of high quality may determine the policymakers' ability to pre-commit policy and have credibility (rule oriented) in pursuing and achieving their policy goals (i.e. better ability to solve dynamic inconsistency problem). This may not be the case in weak institutional countries where policymakers have more discretion, less commitment and low credibility (Rodrik 1999, Minier 2007).

A related view suggests that cross-country experiences with inflation depend on the degree of countries' openness to trade. For instance, when there is a lack of binding pre-commitments in monetary policy, the equilibrium rate of inflation is inefficiently high since discretionary policymakers have the incentive to inflate prices. Romer's (1993) model predicts that the tendency of discretionary policymakers to generate an unexpected expansionary monetary policy is less likely when an economy is more open. This is because with greater degree of openness, any attempt to expand domestic output (above its natural rate) would reduce relative domestic prices but increase prices of foreign imported goods in term of domestic currency, thus resulting in real depreciations of the exchange rate. Thus, high degree of trade openness under a

discretionary policy regime may reduce the incentive of policymakers to shock the public with an expansionary monetary policy.

Recent studies document empirical evidence supporting negative relationship between inflation and trade openness (Granato et al., 2007; Gruben and McLeod, 2004; among others). From this view, it would be plausible to suggest that countries with high degree of trade openness would likely experience relatively low inflation. However, many countries with relatively higher degree of trade openness are still experiencing pervasively high inflation and slow growth (e.g. Ghana, Honduras, Costa Rica; see also Figure A.2A and A.2B in Appendix A). Thus, the openness channel, though important, may appear inadequate in explaining cross-country inflation outcomes.

Thus far there has been no direct empirical study that tests these views.<sup>20</sup> This study intends to bridge this gap. The focus here is on the contingency role of institutions in mediating the influence of inflation and inflation volatility on economic growth. Moreover, given the theoretical importance of the openness channel and the lack of empirical evidence on the contingency role of openness on real effects of inflation and inflation volatility, this study also compares institutions channel to that of the openness channel via its empirical investigation presented in Chapter 4. In other words, both institutions and openness views are empirically tested to see whether they can mediate the growth effects of inflation and inflation volatility. For “institutions channel”, better quality institutions may work through underlying checks-balance constraints to institute the conduct of monetary policy, while the “openness channel” may work through costly real exchange rate depreciation to deter policymakers from engineering inflationary policy.

### 1.3 Research Objectives

The primary objective of this study is to examine the indirect effects of market-supporting institutions on economic growth through their conditional impacts on the growth process. For this purpose, three interrelated issues are analyzed. Firstly, the focus is on different growth paths induced by market-creating institutions on productivity of human-capital-augmented-Solow growth determinants, market-regulating institutions, market-stabilizing institutions and market-legitimizing institutions. Secondly, the concern is on the absorptive capabilities of market supporting institutions in mediating FDI spillovers on growth in developed and developing countries. And the final objective centers on contingency effects of market supporting institutions on growth effects of inflation and inflation-volatility. These three issues are

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<sup>20</sup> Few recent studies that looked directly or indirectly at mediating role of institutions on policy variables on growth found mixed evidence (Easterly and Levine, 2003; Fatas and Mihov, 2005; Miniere, 2007; Emara, 2012; Calderón and Fuentes, 2012).

examined based on a sample consisting of 93 developed economies, emerging markets and developing countries covering the period 1980 to 2010.

More compactly, the three objectives that this study seeks to achieve are:

1. To examine the conditioning effect of market-creating institutions on the effects of human-capital-augmented-Solow growth determinants, market regulating, stabilizing and legitimizing institutions on economic growth.
2. To investigate contingency effects of market-supporting institutions on the effect of FDI on economic growth.
3. To investigate contingency effects of market-supporting institutions on the effects of inflation and inflation-volatility on economic growth.

Figure 1.4 below depicts these three objectives in a unified framework that allows the four-component market-supporting institutions to influence growth process.

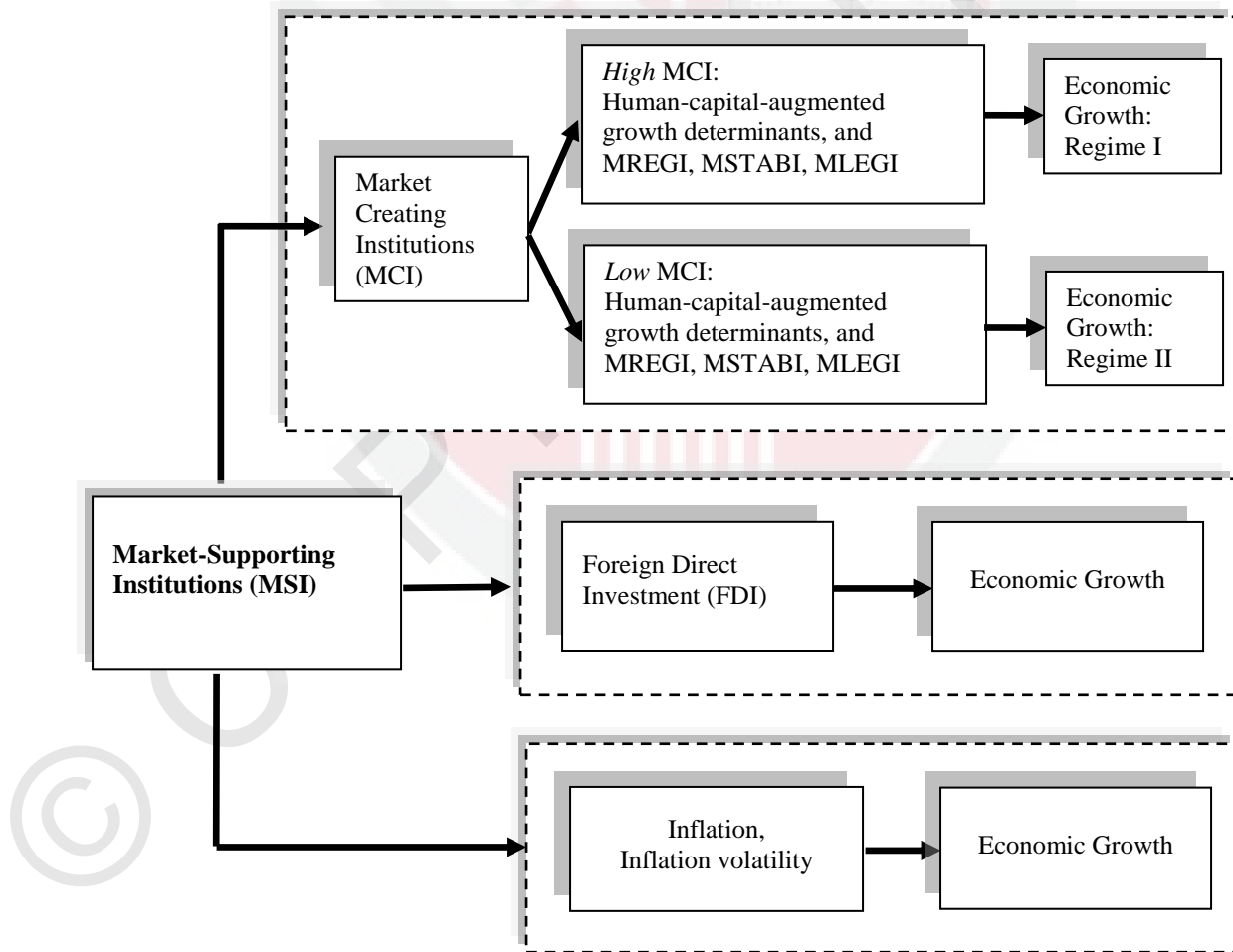


Figure 1.4 Framework of Study

## 1.4 Significance of the Study

This thesis seeks to empirically advance North's "institutions thesis" as well as the leading proponents of this thesis (e.g. [Acemoglu et al., 2005](#); [Acemoglu and Johnson, 2005](#); [Rodrik, 2000, 2005](#)) that institutions play primary contingency roles influencing determinants of long run economic performance. In particular, focusing on [Rodrik's \(2005\)](#) market-supporting institutions (MSI), this study aims to shed additional light on the likely evidence that MSI induce different growth paths, mediating the spillover effects of FDI on growth, and reduce the negative growth effects of inflation and inflation volatility in the long-run.

Specifically, this thesis emphasizes the indirect effects of MSI through various interactive processes with both "proximate" and "fundamental" growth determinants. The first contribution to existing literature that this study hopes to provide are insights into indexing role of market-creating institutions (MCI), a core component of MSI, based on the concept of threshold effects. In that the MCI would define growth regimes within which "proximate" and "fundamental" growth determinants affect growth differently. In doing so, this study departs significantly from existing literature focusing on direct effects of institution on growth. Furthermore, based on [Rodrik's \(2000, 2005\)](#) four components classification of market-supporting institutions, the present study explores the "institutional complementarities hypothesis" between core component, market-creating institutions, and relatively outer-layers dimensions of MSI matrix, namely market-regulating (MREGI), market-stabilizing (MSTABI), and market-legitimizing (MLEGI) institutions in influencing economic growth.

The second major contribution of this study is to provide insight into the institutional competencies of host countries in facilitating FDI induced technological spillovers on local economic growth within two different stages of development. This is to complement and extend the recent evidences that suggest institutions stand prominently in accounting for the "Lucas paradox" in the pattern of capital inflows. In addition to this, existing studies focusing on various host-countries' absorptive capabilities (local financial development, and economic freedom, among others) do not take into account the different patterns of FDI inflows and spillovers of poor and rich countries. Recent research reveals that the inconclusive result found for FDI-growth nexus is largely due to mixing poor and rich countries together. Hence this thesis unifies the above gaps in analyzing the contingency effects of market-supporting institutions on FDI-growth link in both poor and rich countries. From this analysis, important policy implications can be drawn for these two groups of countries.

Many scholars (e.g. [Acemoglu et al., 2003](#)) have conjectured that weak institutions are the root cause of bad policy outcome and policy volatility. As new consensus emerges to suggest that the Washington consensus' stress on getting policy right must be complemented by getting institutions right ([Rodrik, 2006; 2011](#)). Policy takes place within institutional settings, thus, the likely outcomes of inflation and its associated

volatilities may depend on embedded institutions (Acemoglu et al., 2003). Existing literature seems to be silent on whether the institutions mediate the welfare effects of inflation and inflation volatility. This thesis seeks to fill this gap in analyzing the contingent effects of institutions on the welfare effects of inflation and inflation-volatility. As institutions are supposed to determine policy outcome and policy volatility through the embedded institutional constraints on power holders (politicians or policymakers, politically powerful interest groups or individuals), another theoretical view suggests that pressure from real exchange rate depreciation induced through open trade regime can help keep politicians or policymakers away from inflationary policy.

As recent empirical studies show, a highly open economy tends to experience low inflation, suggesting the openness channel is also plausibly at work. Similar to the lack of evidence on the contingency role of institutions, evidence on the contingency role of openness on growth effects of inflation and inflation volatility is virtually non-existent. This thesis also fills this gap by comparing the contingency role of institutions to that of openness in influencing the growth effects of inflation and inflation volatility. If institutions are indeed the root cause of distortionary policy of high inflation and volatilities, then improvement in quality of institutions is crucial in reducing the risk of bad policy outcome and frequency of policy changes (volatility risks). By doing so, growth cost of such risks can be minimized. Furthermore, if openness pressure is also found to be at work, it would suggest that influence of trade openness also has an indirect effect on growth through its influence on inflation and inflation volatility.

## **1.5 Organization of the Study**

The organization of this study is as follows. Chapter 2 provides theoretical and empirical reviews on recent debates on the contingency role of institutions in growth process. This study has tried to provide a key to the literature by comprehensively piecing together the most important studies addressing the fundamental role of institutions, both directly and indirectly, on economic progress. From these reviews, major shortcomings on the issues were identified.

First, it is the issue concerning institutional induced growth regimes conditioning the growth effects of standard growth determinants, and the institutional complementarities. The role of institutions as indexing factors on growth process have not been given proper attention, despite voluminous evidence suggesting institutions is the fundamental cause of economic performance. On top of this, evidence is scarce with respect to complementarities between dimensions of institutional matrix in influencing growth.

Second issue concerns the institutional absorptive capacities on the links between FDI and economic growth in both poor and rich countries. Besides relatively few evidences exist on the link between institutional absorptive capabilities and the FDI-growth nexus, studies on absorptive capacities of the host countries in general has not further taken

into account the level of the host countries' stages of development. This is crucial as many recent empirical evidence shows pooling poor and rich countries together can obscure the link between FDI and growth which is usually found to be inconclusive.

Final issue rests on the recent view that weak institutional settings may be the root cause of policy outcome and volatility. Relying on this view, it seeks to investigate the effects of institutions on the growth effects of inflation and inflation volatility. While many scholars have shown increasing evidence to support such view, there are no direct attempts in linking institutional absorptive capacity to the growth effects of inflation and inflation volatility for a large number of countries. Similarly is the case with respect to the alternative view on the importance of trade openness in influencing the cross-country inflation experiences. According to this alternative view, countries with high degree of trade openness tend to experience lower inflation because real exchange rate depreciation would prevent discretionary policymakers' tendency to opt for inflationary policy. While focusing on institutional channel, it would be insightful to compare this to the openness channel in the empirical assessment of the growth effects of inflation and inflation volatility. Attempt to provide solutions to all these mentioned shortcomings motivate the research that the present study undertakes.

Chapter 3 deals with theoretical based empirical growth models, methodology and the measurement and data employed in this study. A detailed derivation of the institutions augmented growth models (Mankiw et al., 1992) to incorporate the above identified issues is presented. Then, detailed empirical strategies and estimation procedures used in this study are discussed, followed by descriptions of the measurements of the variables and relevant data employed in the empirical analysis.

Chapter 4 presents and discusses the empirical results. An attempt has been made to provide in-depth empirical treatment including extensive robust analysis on the above identified issues namely market-creating-institutions induced multiple growth regimes, contingency roles of market-supporting institutions on the growth effects of FDI, inflation and inflation volatility. The overall empirical evidences present in this chapter support the important contingent role of institutions in the growth process. First, there is robust evidence of two institutional induced growth regimes defining standard growth determinants. Within these regimes, there was also evidence of the institutional complementarities between core institutions defining checks-balance constraints and institutions regulating market economies. Second, while confirming the literature on the inconclusive link between FDI and growth, the positive effects of FDI on growth were found to depend on sufficiently high level of institutional competencies of the host countries. Furthermore, such links differ between poor and rich countries. With respect to the mediating role of institutions on the growth effects of inflation and inflation volatility, this study is only able to confirm the evidence that improvement in market-supporting institutions would lower the negative effects of inflation in emerging market and developing countries; while improvement in market-regulating institutions was

found to reduce the negative growth effects of inflation volatility. This study does not find any evidence on the contingent role plays by trade openness on the growth effects of inflation and inflation volatility.

Finally, Chapter 5 provides concluding remarks and relevant policy implications as well as limitation of this study and the avenues for future research. This study argues that institutional and structural reforms hold the key to unlock underdevelopment in many developing countries. This is because by upgrading their institutions towards sufficient high level, these developing countries could improve the growth effects of capital accumulation both physical and human capital and to experience positive spillover benefit bring over by FDI on growth while lessen the negative growth effects of policy distortion (inflation) and policy volatility (inflation volatility). Furthermore, such reforms maybe an important ingredient to uplift many emerging markets from the so-called “middle income trap”.

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