



**Global Urbanization Trends and
Challenges Facing Mature Mid-Size Cities:
*The Case of Busan, South Korea***

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1.0 INTRODUCTION

Urbanization is a well-known phenomenon that has become an integral part of our modern ethos. The role of cities and their prominence in the global economy, presently and even more so in the future, is now at the center of contemporary dialogues, both nationally and internationally.

Credible institutions like McKinsey are predicting 65 percent of the future growth in global productivity will come from 600 top cities, generating \$30 trillion of new wealth for the world by 2025.^v The top 25 of these cities are *mega* cities with more than 10 million in population. A majority, more than 400, are *mid-size* cities with a population between 200,000 to 10 million spread out across 57 countries. Of the top 600, 440 of the cities are also from the developing world, with more than 60 percent being in China.

With the rapid and highly concentrated growth, these 600 cities would undoubtedly face many difficult challenges in the foreseeable future. For the top 25 *mega* cities, the risk of *hyper*-urbanization and resulting urban blight is always around the corner. They need to be sensitive to when the marginal cost of growth outweighs the marginal benefit. For the rest, the opportunities abound but they come with different challenges for different cities.

For the 440 cities in developing economies, the so-called *Emerging 440*, their growth would be organic in nature largely propelled by the inevitable rural to urban migration inherent in the development process. It is estimated they would be responsible for 47 percent of the future growth, generating \$23 trillion in new global wealth by 2025.

With such demand and consumerism on their side, much attention has been given to these cities by international business and investment communities. These cities also have the benefit of having the international financial institutions (IFIs)—whose collective mission is to support critical growths in the developing world—on their side both from a financial and a development knowledge standpoint. With this support, the key challenge for the *Emerging 440* would be to ensure that the rapid growth driven by economic efficiency is balanced with prudent development plans that are environmentally sound and that include social equity provisions for the urban poor.

For the remaining 160 cities in more advanced economies, of which 155 are mid-sized, challenges are more daunting as their need to tread a new path of growth becomes more imminent. Urban migration in most of these cities has already taken place. With the aging population and a significant decrease in birthrate, the demographics are also stacked against them. At this juncture in the urbanization *evolution*, these cities are faced with a number of difficult challenges.

Among others:

- ✓ Internationally, they are competing directly with the *Emerging 440* for business opportunities, investment capital, and other scarce natural and human resources without the organic growth on their side.

- ✓ Domestically, many mid-size cities are also competing directly with other major cities within their own national border, with some even subjected to formal national government policies that favor mega and larger cities.
- ✓ Most are also faced with obsolete jurisdictional boundaries that are far removed from their natural cohesiveness as economic, civic, and cultural centers, imposing unnecessary (and sometimes *fatal*, in the case of Detroit)^{vi} constraints to their growth.
- ✓ With the declining fiscal health of most national governments since the 2008 global financial crisis coupled with rapid urbanization, many are also having to become more self-reliant fiscally and less dependent on national governments for direct subsidies.
- ✓ Some are also burdened with additional fiscal constraints coming from the rising costs of public pensions and other related liabilities for their employees, which are crowding out their critical spending needs.
- ✓ Further, urged on by recent advancements, many are also having to adapt to the changing urban technology landscape, such as smart city concepts, to gain efficiency in the way they provide basic services to their citizens and businesses.

Solving the challenges of the mid-size cities in developed economies are critical because they are facing *now* the challenges that the *Emerging 440* will likely be facing in the *future*—i.e., how to sustain growth and maintain cities' political and economic legitimacy when organic growth is depleted and when the conventional tools to gain growth have been sufficiently explored. Not all cities have been successful in this regard, as we saw in Detroit and other mid-size cities in the U.S. that had to resort to bankruptcy in recent years.

It is important to recognize, however, these *mature* mid-size cities would continue to eke out a growth, if not by necessity and albeit at a slower rate. They would continue to represent the *bread-and-butter* and stabilizing force of the global economy—now and in the future. According to McKinsey, the 160 cities in advanced economies collectively contributed almost 40 percent of global wealth (or \$23 trillion) in 2010 and will continue to contribute a substantial amount—almost 30 percent (or \$31 trillion) by 2025, the same level as the *Emerging 440* and still substantial.

The mature mid-size cities have critical assets that the *Emerging 440* do not have—a credible system of institutions that are accepted in the global market place that, for the *Emerging 440*, would take years to build. Having utilized the customary economic liberalization tools that gave them the credible institutions they have today, these cities now need to look to a new and innovative set of tools to generate the next wave of growth. To start, cities need to get smarter, more proactive, and, to the extent possible, less reliant on national governments. They need to seek direct access to the global market place and establish their own identity and credibility, fiscal or otherwise—integrated with but over and beyond that of their national governments.

Structural reforms that trigger growth spurts often follow financial or economic crises that expose weaknesses in economic systems. According to OECD,^{vii} in the post-2008 crisis climate, many economic policy reforms to address such weaknesses are currently taking place at national and international levels. In the face of the current urbanization trend, mature mid-size cities need to be at the forefront of these reforms. In concert with the reforms that are taking place at national levels, they need to forge their own brand of urban-specific reforms that can turn their current challenges into opportunities.

For growth-oriented cities—assuming a proper balance can be achieved on the economic, environmental, and social equity dimensions—the fundamental questions they ought to be asking at this juncture are:

2. What is our maximum growth potential as a city and have we reached that potential?
3. If not, what are the things we can do as a city government to reach that potential?

In considering the maximum growth potential of a city,^{viii} two specific urban-level reforms are proposed in this paper: (a) an overhaul along the institutional and regulatory dimensions designed to reduce the existing barriers to further growth and (b) effective engagement of the private sector to enhance cities' fiscal self-reliance, especially in the infrastructure area. We use Busan, South Korea, as our case example for providing a meaningful representation of a mature mid-size city and for demonstrating the proposed two urban-level reforms.

2.0 INSTITUTIONS AND REGULATORY FRAMEWORK

2.1 A Theoretical Perspective on “Maximum Growth Potential”

Going back to economic fundamentals, Nobel Laureate Douglass C. North is the leading economic historian and institutional scholar with a body of work elaborating on the role of institutions in the performance of economies.^{ix}

North defines *institutions* as humanly devised constraints that structure human interactions, be they political, economic, or social. Institutions consist of formal rules (constitutions, laws, and property rights), informal constraints (sanctions, taboos, customs, traditions, and code of conduct), and the enforcement characteristics of these rules and constraints. Institutions thus provide the incentive structure of an economy and, as that structure evolves, it shapes the direction of economic change towards growth, stagnation, or decline.

Throughout history, institutions have been devised to create order and reduce uncertainty in human interactions but there is no implication that the results are always efficient. Essential to efficiency over time are institutions that provide economic and political flexibility to adapt to new opportunities. The ideal institutional framework thus is one that is *adaptively efficient*, while providing an incentive structure to promote decentralized decision making, induce effective competition, and allow a society to explore many alternative ways to solve problems.

Effective institutions can reduce transaction costs that arise from human interactions and realize more of the potential gains from these interactions. Transaction costs are thus the key to the

performance of economies. They are also the key obstacles that, through *rent seeking* behavior, at times prevent economies and societies from realizing their maximum potential.

In his seminal paper on *Transaction Costs, Institutions, and Economic Performance*, North describes a largely zero-transaction-cost world where we can possess complete knowledge about the sources of institutional *constraints* and their effects on sustained development. While acknowledging we will never have this idealized model, North emphasizes that the closer we can get to a *scientific consensus* on the major issues, the greater the possibilities of successful policies, and the nearer we are to achieving our maximum potential. One key aspect of designing an effective institution is thus the need to assess costs and benefits of alternative policies with appropriate level of comprehensiveness and analytical rigor. We can reduce transaction costs and better design institutions if we have better information about the *gains* and *losses* and *winners* and *losers* of alternative policies.

Accurate assessments can also inform the appropriate roles for the public and private sectors. Where the policies are measured to be privately profitable, private institutions and organizations will emerge spontaneously with a right set of incentives. Where they are not privately profitable (e.g., due to *free riding* and *public goods* problems), yet clear social benefits and costs can be demonstrated, they can be undertaken by enacting and empowering appropriate government institutions and organizations.

2.2 Institutional Reforms for Growth: Historical Perspective in OECD Countries

In its recent publication *Making Reform Happen: Lessons from OECD Countries*, OECD provides analyses of the past economic and regulatory reform experiences of the 30 OECD countries, identifying lessons, pitfalls, and strategies that may help foster policy reforms in the future.^x In most OECD countries, the basic principle of supporting market liberalization has been generally accepted and major reforms of trade, investment, competition, and market regulation have been achieved.

Market-oriented reforms in OECD countries have tended to follow a common pattern with a logical sequence. In most countries, the process began with manufacturing trade liberalization, often driven by external developments and commitments. Financial market and foreign direct investment (FDI) liberalization have tended to come next, followed by the opening of domestic product markets and service sectors. Labor market reform typically comes last, in part because labor market institutions are affected less directly by competitive pressures from abroad.

Although much remains to be done, most OECD countries have achieved a great deal with respect to the reforms “*at the border*.” Basic trade reforms designed to reduce tariff levels and remove discriminations, quotas, and licensing requirements were largely accomplished by most countries by the late 1980s. Less obvious constraints, such as non-tariff trade barriers and remaining restrictions on foreign investments (e.g., controls that benefit or target particular sectors), however, still remain in place and are an ongoing challenge.

Reforms “*behind the border*” have focused on competition laws and enforcement. These reforms, which were part of many market-opening reforms in the 1980s and 1990s, were designed to help cement and protect market liberalization. Competition laws also laid a basis for many sector-specific reforms where a key challenge has been to allocate appropriate jurisdiction between general competition law enforcement and regulators of particular sectors. By far, however, the most critical challenge of these reforms has been to make enforcement independent of political influence.

2.3 Second Generation Growth and Anti-Competitive Market Distortions (ACMDs)

When the Berlin Wall fell and the economies that had struggled under soviet control were freed to transition from a *command and control* to a market economy, it was believed that the free market, democratic system had triumphed over the communist/socialist one and the great historic struggle between the free market and state-led economies was over. In Latin America during September 1992, the *apertura* took place, opening markets from decades of *import substitution*. The 1990s also saw China transitioning towards a market economy and India dropping decades of protectionism and socialist control.

The overall liberalization story, however, has been more complicated. Conventional wisdom was that if borders were opened up, competition would automatically follow. But this wisdom turned out to be wrong. It neglected the impact of *anti-competitive market distortions* (ACMDs)—i.e., government rules, regulations, and practices that were hangovers from the old economies that stifled competition *behind the border*.^{xi}

In the throes of the economic turmoil, the incumbent gatekeepers of these old economies benefited by preserving or increasing their anti-competitive, monopolistic power. Although the problem was limited primarily to ACMDs, consumers reacted against the whole system of liberalization and globalization. Sometimes this was manifested in a very dramatic way, for example in Venezuela and Argentina, and other times in a less dramatic but equally pernicious way in developed countries with increasing calls to soften the rough edges of capitalism.

Even if states had the political will to drive competition through all of their laws, rules and governance, this second generation of reforms—labor market flexibility and competitive regulatory systems in the newly privatized industries, to name a few—have been difficult at a greater extent to push through because those who opposed that agenda have become much more powerful. The trade agenda in the World Trade Organization (WTO) stalled as a result and many countries adopted increasingly mercantilist mindsets. The conventional tools also offered little in the way of solving the resulting recession, stagnation, and unemployment problems—thus the radical promise of the 1990s started to fizzle.

Understandably, where there has been this network of behind the border barriers and ACMDs, there are indications that foreign investors and traders have not trusted the investment and regulatory environment nor the governance structure of the host governments. It is true that the state can be too powerful sometimes, especially those that have emerged from the command and control economies. Ironically in many countries, however, the problem has not

been that the state is too strong but rather it is too weak to stand up against the forces of incumbents and elite groups. These groups seek to change the regulatory environment to further benefit their businesses or to hang on to gains which have arisen as a result of a distorted market.^{xii}

ACMDs have been particularly prevalent in countries that have had a private sector, which have often protected it through import substitution or other methods of protectionism. In some countries, the separation between the government acting on behalf of the people, representing consumer welfare in the economic sense, and certain benefited elite groups have been vanishingly small. Many of these dominant elites have been *rent seekers* who often circumvented their governments to perpetuate the network of ACMDs to control banking, media and other major lucrative businesses.

In essence, ACMDs are potent economic forces that discourage open trade, competitive markets, and protection of property rights—all requisite ingredients for economic growth. They are often the primary reason why it has been so difficult for governments in both the developing and developed world to engage effectively in second-generation reforms for further growth.

2.4 South Korea in Post-2008 Crisis Environment

Going for Growth (GfG) is an OECD flagship program that provides an overview of structural policy developments in OECD countries and reports annually on their progress in implementing the policy reforms.^{xiii} In the post-2008 financial crisis environment, this program along with its analysis framework have been instrumental in helping the G20 countries develop their post-crisis growth strategies, aimed at raising their combined GDP and achieving sustained and balanced growth.

The program offers a comprehensive assessment to help governments reflect on how policy reforms might affect their citizens' wellbeing and designs policy packages that best meet their objectives. It provides comparisons across OECD countries and recommends country-specific policy priorities along the five key structural reform policy dimensions: (1) product and labor market regulation, (2) education and training, (3) tax and benefit systems, (4) trade and investment rules, and (5) innovation policies.

In the post-crisis environment, South Korea fared relatively well compared to other OECD countries. The latest OECD GfG report card, however, identifies several areas needing further improvements.

Specifically:

- ✓ Although GDP per capita is in the top eighth of the OECD countries, Korea's productivity is only half as high and its working hours are among the longest.

- ✓ The level of inward FDI is the second lowest in the OECD area, requiring further reforms such as increased transparency of tax and regulatory policies and reduced entry barriers for large firms currently reserved for SMEs.^{xiv}
- ✓ Although tax burden is low, to keep up with the double-digit growth in public social spending, the efficiency of the tax system needs to be further improved by making it more growth-friendly and thus relying more on indirect taxes such as VAT, which is the second lowest in the OECD area.
- ✓ Labor market duality and women’s labor force participation, the fifth lowest in OECD area, are compounding the negative impacts of rapidly aging population and income inequality, requiring further reforms in employee protection and other related areas.
- ✓ Agricultural producer support, more than twice the OECD average, is imposing a burden on consumers and distorting the structure of agricultural sector, which have been partly remedied by the recent Free Trade Agreements with Canada, Australia, and New Zealand that reduced agricultural import barriers.

Historically, Korea has performed well in the “*growth*” domain and has often served as an exemplar for having undertaken a series of institutional reforms that have been largely successful. Many of the *growth barriers* identified above are remaining barriers that are particularly difficult to implement, in part due to complex political or cultural sensitivities associated with these barriers. Undoubtedly, they would require a long time to take effect. In the absence of major technological breakthroughs, arguably, Korea is fast reaching a *steady state* of growth at the national level with its future characterized by a painfully slow and incremental growth of its more advanced allies.

Pushing through the next generation of reforms, including many that may be difficult to implement at a national scale, could be more implementable at a smaller, city scale. A “*one country, two systems*” model that was found to be very successful in London, Singapore, Hong Kong, and, more recently Dubai, could be tested in an urban setting as a pilot case to gain better understanding and for potential implementation at regional and national levels. As emphasized by North earlier, at city scale, some of the political and cultural sensitivities associated with the next generation reforms could be more readily tested and assessed with better control and analytical rigor.

3.0 TRENDS IN URBAN INSTITUTIONS

At a sub-national level, with the rapid urbanization and changing urban landscape, several different urban development forms have been emerging. These forms—most notably, *special economic zones (SEZs)*, *smart cities*, and *enterprise or charter cities* (or many variations thereof)—are motivated by different goals with different institutional makeup and governance structure. Broadly, the *SEZs* are largely motivated by localized trade liberalization, *smart cities* are propelled by technology with the goal of improving connectivity and city services, and *enterprise or charter cities* are primarily driven by broader institutional and regulatory reforms focusing on urban governance structure.

3.1 Special Economic Zones (SEZs): Localized Market Liberalization

A special economic zone (SEZ) is a generic term used in this paper to denote an enclave established to implement a varying degree of trade liberalization within a self-contained area, where basic business and trade laws differ from the surrounding areas. Its primary aim is to increase trade, investment, and job creation through incentives that are either fiscal (e.g., tax holiday) or regulatory (e.g., liberal customs and foreign investment regulations) in nature.

A SEZ can take many different forms and is variously referred to as:

- Free or foreign trade zone (FTZ)
- Export processing zone (EPZ)
- Free zone or free economic zone (FEZ)
- Industrial park or estate (IE)
- Free port
- Bonded logistics park (BLP)
- Urban enterprise zone (UEZ)
- International Business District (IBD)

Depending on the type, SEZs can vary in terms of their primary function (e.g., import/export trade, export manufacturing and processing, or multi-use integrated development), size (e.g., less than 50 to greater than 1000 hectares), location (e.g., a port of entry along the coast or inland), and market (e.g., domestic or foreign). Benefits of SEZs can be both inside and outside of the border. In export and manufacturing oriented zones, for example, for a given level of tariff protection, SEZs can increase exports for the countries they are in and for other countries that provide intermediate goods or components.

Globally, there are now more than 4,000 SEZs employing over 68-million people. Although data is limited, anecdotal evidence suggests their performances have varied widely.^{xv} Only a few have been successful, notably those in China, the United Arab Emirates, South Korea, and Malaysia. A large number, however, have been only marginally positive from a cost-benefit standpoint and many others have been downright failures.

The biggest success story of SEZs occurred in China where the idea was wholly embraced by the government in the 1980s. Most economists agree that SEZs catalyzed liberalization in China, after they were effectively used to test reforms that were seen as too difficult to implement nationwide. While many of these zones, such as the one in Shenzhen, have transformed into major export manufacturing powerhouses, many others have seen only limited level of success.

Globally, there are several reasons why SEZs have failed or had limited success. More often than not, these zones have been used by host governments as an excuse to avoid full-market liberalization and to retain protectionist barriers in the rest of the economy. In countries where institutions have been less than credible, they have been susceptible to unsavory local practices—capricious policymaking, grafting, corruption, inflated export values, etc.—driving developers

and investors away. In many African countries, they have also suffered from excessive bureaucracy and inadequate infrastructure provisions by the government.

By far, however, the most important reason has been that a majority of SEZs are driven primarily by tax incentives and the profits thus derived typically leave the zones immediately without benefiting the rest of the country. In China, for example, for each one percent of additional FDI produced in these tax-incentivized zones, the GDP has increased by only 0.07 percent.^{xvi} In general, it has been found that incentive structures that are primarily tax-based and “concessional”^{xvii} in nature with short-term outlook are far less effective than those that are more regulatory and “reform” based with a longer-term perspective of improving the underlying institutions.

3.2 Smart Cities: Connectivity and Sustainability

A smart city is a generic term used in this paper to denote an urban setting that uses digital or ICT technologies to enhance the quality of the urban environment. Its primary goals are to improve the quality and performance of urban services (e.g., clean water, sewage, roads, electricity, and telecom), reduce resource consumptions (e.g., water and energy), and engage more effectively and actively with its citizens. In general, most of the discussions surrounding “smart city” concepts have focused on technological applications. A real understanding of the underlying regulatory and institutional requirements to reap the full benefit of these applications has been largely lacking.

A smart city can take many different forms and, among others, be variously referred to as:

- Smart city
- Ubiquitous city (U-City)
- Internet city
- Media city
- Mobile city
- Telecity
- Wireless city
- Knowledge democracy
- Broadband metropolis

The smart city concept can be implemented in existing cities (e.g., Amsterdam), in new cities (e.g., Songdo), or in conjunction with other developments such as SEZs (e.g., Dubai). For cities like Songdo, although it has a larger economic goal of being a global commercial center capitalizing on its proximity to Incheon International Airport for global connectivity, one of the city’s main drivers and selling points has been its “smartness” with high digital connectivity and commitment to technology-driven sustainability initiatives.

The scope of smart city can vary widely depending on its geographic coverage and desired functionality, the costs involved, and who ultimately bears the underlying costs. For example, it can vary from local applications limited to a single functionality (e.g., energy usage monitoring of LED lighting) whose costs can be recovered through savings and passed onto end-users; city-

wide services with limited functionality (e.g., operations center for on-time emergency or disaster response throughout the city) whose costs are borne primarily by the government; or more comprehensive enterprise-level applications involving the entire city's operations (e.g., *cloud* infrastructure involving “*Big Data*”) whose costs can be shared by multiple parties involving both public and private-sector funding.

Smart city concepts are quickly becoming a requisite to critical urbanization policy discussions. No conversation about cities can now take place without considering their “*smartness*” in one form or another. At this juncture, however, smart city concepts are continuously evolving and their full benefits, especially of the enterprise-level *cloud* applications and of *Big Data*, are yet to be determined.^{xviii} From a mature mid-size city governments’ standpoint, the full effect of implementing various digital concepts need to be assessed prudently, especially from an *institutional* perspective. To fully capitalize on the promised benefits of *Big Data*, for example, a significant reconfiguration of cities’ organizational structure, as well as how they conduct their business may be necessary, including key aspects of a cities’ operations as well as management and deep-rooted inter-agency coordination protocols.^{xix}

3.3 Enterprise or Charter Cities: Institutional and Governance Focus

An enterprise or a charter city is a generic term used in this paper to denote an urban setting that has an independent regulatory framework or “*charter*” to effect autonomous economic and regulatory system and governance structure. The intended aim is to constitute more liberal institutional and regulatory structure to a city or a self-contained *segment* of a society to minimize institutional barriers and stimulate growth.

These ideas are not new. There are many examples of a regulatory system or institutional arrangements within a city or a zone that are different from the surrounding country or region. Some SEZs with more expanded liberalization goals are examples of an enterprise or charter city—e.g., Dubai’s Western-style regulatory regimes for its International Financial Center and sector-specific economic zones.^{xx} There are others that are well-established and have proven extremely successful historically—to name a few, the City of London Corporation and its Charter, Singapore’s early adoption of English Common Law, and the Basic Law of Hong Kong that established *one country-two systems* of governance.^{xxi}

A few different versions of the concept exists currently—most notably “*Charter City*”, “*Free City*”, and “*Enterprise City*” (or “*E-City*”).

The concept of a “*Charter City*” was first developed by Paul Romer, a well-known scholar linked to the *endogenous growth theory*.^{xxii} Romer’s *Charter City* has a distinct set of characteristics. It has to be a *new, startup city* where new concepts or policies, such as driverless vehicles or a complete switch to clean fuel, can be tested within a self-contained area and where the choice to participate is *voluntary* and not coerced. According to Romer, for the concept to be viable, a *Charter City* has to be *large* (as opposed to small) and *geographically bounded* (as opposed to virtual). It also has to represent a *reform zone*^{xxiii} (as opposed to a *concessional zone*) where gains exceed losses and a net value is created. A *Charter City* can also *import* more advanced government services from outside.^{xxiv}

Romer cites Shenzhen as an exemplar *Charter City* historically because, unlike other SEZs in China that were largely “concessional”, its reforms were transformational and ultimately spread to the rest of the country with larger and longer-term effects. According to Romer, the most important goal of *Charter City* is to improve the governance of a city, with a full recognition that the role of the government, its institutions, and efficiency of its services are the key driver to economic growth and prosperity.

The idea of a “Free City” emerged recently in the U.S. with a basic goal of applying the “one-country, two systems” approach used in Hong Kong to elsewhere.^{xxv} Its primary aim is to better help the developing world by shifting it away from the current model of state-sponsored foreign aid towards a more effective engagement of the private sector with improved institutions. A *Free City* can be established through a bilateral treaty between the U.S. and a host government in the developing world where *U.S.-style* institutions are offered on a large undeveloped site to attract businesses and capital from around the world.

U.S.-style institutions in a *Free City* represent, among others, self-government; the rule of law; low taxes; reliable prosecution of corruption; freedom of faith, speech, and press; public registration of real property; a merit-based civil service; multi-ethnic meritocracy; zero tariffs; and an “American” university. Although the idea is U.S.-centric, the concept can be applied by any advanced economy in the world with credible institutions.^{xxvi}

An “Enterprise City,” or “E-City” for short, is governed by a regulatory framework that is agreed upon between the government and a private developer group. As such, it is based on the type of reforms that are difficult to enact at the national level. The regulatory framework is built on the three core pillars of economic growth: open trade, competition on the merits as an organizing economic principle, and property rights protection. The key element of an *E-City* is that such regulatory framework provides improvements over and above the national system in the legal, economic, and governance spheres.

An *E-City* has some of the same features of Romer’s *Charter City* but with a great deal more flexibility. Like a *Charter City*, an *E-City* is all about reforms, not concessions. Unlike a *Charter City*, however, it can be applied not just to new, startup cities but also to *existing* cities that are interested in examining the institutional dimensions for further growth. An *E-City* can be large or small. Likewise, it can be geographically bounded or virtual, where a “zone” can be defined non-physically, e.g., one or more industry sectors, a set of major public policy programs, or major capital development projects involving multiple jurisdictions across non-contiguous areas.

An *E-City* is a concept developed as part of the Enterprise City Project, a Competere Group initiative incubated at Babson Global.^{xxvii} At the core of the concept are (1) *comprehensive assessments* of institutional barriers—in particular, ACMDs discussed earlier—and (2) development of institutional *reform strategies* that enable the next generation productivity gains and economic growth. Analytical rigor emphasized by North is introduced here through a competitiveness diagnostic tool and *E-City Simulator*, which predicts how per capita production will improve by removing each of the ACMD barriers.^{xxviii}

In an *E-City*, ACMD barriers are defined in three key interconnected regulatory dimensions: property rights protection, domestic competition, and international competition. Using each ACMD barriers as a lever to unleash next generation growths, alternative policy options along the three dimensions are designed and prioritized. Practical policy tools thus developed are intended to help an *E-City* achieve its maximum entrepreneurial potential.

An *E-City* also provides an appropriate governance structure to facilitate the implementation of the recommended strategies. The governance of an *E-City* is in essence based on a public-private partnership between the government and a group of private developers tasked with developing and managing the *E-City*. The governance structure manifested in: (1) a *Regulatory Framework Agreement (RFA)*, which establishes basic institutions and regulatory system for the *E-City* and (2) a *Joint Development Board (JDB)*, consisting of representatives from both the government and the private developer group, who has the overall *E-City* oversight responsibility. This oversight can include such functions as delegating the day-to-day management of *E-City* to a *professional city administrator*; establishing a system of dispute resolution so that investors (both foreign and domestic) can trust *E-City's* governance, legal, and regulatory environment; and establishing incentive structure to align the interests of various stakeholder, for example, a profit sharing arrangement with the host government.

4.0 A CASE FOR BUSAN METROPOLITAN CITY, SOUTH KOREA

4.1 *Busan: A Quintessential Mature Mid-Size City*

With over 3.5 million in population, Busan Metropolitan City (BMC, hereinafter referred alternatively as Busan or “*the City*”) is a quintessential mature mid-size city because it has gone through the typical market liberalization path of import substitution economies and is now facing the daunting challenge of producing the next generation growth described earlier.

Busan was an economic power house for South Korea in the 1960s and 1970s. The City's growth was triggered largely by the growth in the import substitution economy—i.e., labor intensive, export driven industries such as garment, footwear, foods, and mechanical goods—coupled with the Port of Busan's critical role as the nation's southeastern logistics hub, which enabled retail, wholesale, and distribution businesses to also prosper. The City started to lag behind, however, when the Central government chose to promote heavy and chemical industries outside the Busan area in the late 1970s. Busan's economy further declined with the sharp increase in labor costs in the 1980s, caused in part by the strong liberal political movement that spread throughout the country. Throughout the 1980s, Busan lost most of its competitiveness as the labor-intensive industries gradually moved out of the City to China and other regions in East Asia where the labor costs were cheaper. By the time the new internet-based digital economy came around in the 1990s, the City's economy was not sufficiently robust enough to capitalize on the new growth potential offered by the digital economy.

At this juncture, Busan has most of the challenges facing mature mid-size cities identified earlier but it also has several opportunities that work in their favor in terms of further growth. As was the case for South Korea at national level, the City can potentially become an exemplary model

at city level for generating next level of growth that other mature mid-size cities around the world can emulate.

In terms of challenges, Busan is competing globally with *Emerging 440* and the rest of the mature mid-size cities for investment capital and human and natural resources. An additional challenge for the City, however, is the Central government's urban development policy that strongly favors centralization in Seoul and its surrounding areas.^{xxix} Inside the national border, Busan is being forced to compete with Seoul and nearby cities like Songdo to obtain the Central government's support and to attract major businesses, skilled labor, and foreign investment capital. Locally, Busan's economic sphere of influence is also not commensurate with the obsolete jurisdictional boundaries that exist today. Helped along by the past Central government policies, some of the key residential, commercial, and manufacturing centers that benefit directly from Busan are placed beyond the City boundaries, imposing artificial constraints to the City's growth. These challenges are also creating fierce competition among cities in the region, further fueling the regional politics that are deeply ingrained in the culture.^{xxx}

Busan also has the same demographic concerns of mature mid-size cities mentioned earlier. The City lost more than 300,000 people to Seoul and other cities in less than 10 years because companies in Busan could not compete with the large "*chaebol*"^{xxxi} companies—located primarily in Seoul and cities outside Busan—preferred by workers. As a result, the birth rate has been going down and the aging population has been going up. The City currently spends more than 35 percent of its budget on welfare, mostly for the elderly.

These challenges and constraints are equally matched by several opportunities and assets working in Busan's favor. Busan is the second largest city in South Korea with a long history, rich and unique culture, and mature businesses. Located at the southeastern tip of the Korean peninsula, the City has long been a major tourist attraction, both domestically and internationally, with its natural coastal terrain and seaside resorts. It also boasts the largest maritime gateway in Korea. The Port of Busan is the fifth busiest container port in the world—followed only by the global giants like Shanghai, Singapore, Shenzhen, and Hong Kong—and much bigger than Jebel Ali Port that made Dubai a global success story. The City is also experienced in large-scale developments such as *Centum City*, an urban enterprise zone converted from a former air base often cited as a successful example of city-led mixed-use developments that generated growth.

In his controversial book *If Mayors Ruled the World*,^{xxxii} Benjamin Barber makes a persuasive case that the cities are the best hope of solving the most critical problems of today that are too big, too interdependent, and too divisive for national governments to handle. Central to his argument is the importance of the leadership quality of mayors and the capabilities of the support system they have built around them. An important asset for Busan of today is also the newly elected Mayor and his Administration that maintain a global vision with a *can-do* mindset and reinforced with the depth of domestic and global experience and knowledge on their side.

Along with these qualities, the City also enjoys the general support of the local citizens stemming largely from the Administration's strong commitment to enhance the citizens' wellbeing. Under the new Mayor's leadership, several new initiatives are currently underway to

help the City's economy—among others, (a) making Busan an *innovative city* through the establishment of a new *startup ecosystem*, (b) building a strong pool of *talent and technology* base through a new program *TNT2030*, (c) establishing a *regional R&D* powerhouse through the strengthening of the local academic institutional assets, (d) establishing an aggressive *global outreach program* to create new business ties globally, (e) creating *new pillars of growth* in six strategic industries, and (f) developing a *new airport* to generate new investments and new jobs. The Mayor also established *New Growth Engine Bureau* specifically to focus on stimulating growth in concert with these initiatives.

For many years, Busan's growth has been stagnating due to the challenges and constraints that are driven by "zero-sum" mindset—in large part generated by the *local* and *regional* competitive stands. At this juncture, Busan is in a unique position to break out of that mindset and institute new reform measures that can create "win-win" situations not only for the region but for Korea as a whole.

For Busan, one way for the City to free itself from this *zero sum* gridlock is to *go global* and to work towards creating a "global city." *Going global* means increasing *global connectivity* literally and figuratively—*literally* through enhancing Busan's key assets, including airport and seaport, and *figuratively* by having *global orientation* in everything the City undertakes, including the Mayor's current initiatives identified above. That is, to envision Busan as a *global* innovative city, having a strong pool of *global* talent and technology base, with a *global* R&D powerhouse located locally, having ties with major *global* businesses, with six pillars of growths sourced *globally*, and a new airport with *global service network*.

4.2 Long-Term Development Potential and Key Challenges

The key to maximizing the long-term development potential for Busan would be to find ways to capitalize on the synergistic nature of Busan's key assets that other surrounding cities cannot offer. One such concept was revealed at 2013 Vision Korea National Conference. A long-term development vision for Busan was presented as a part of "One-Asia Revolution: Korean Ocean Initiative (OAR-KOI)."^{xxxiii} At the heart of OAR-KOI is a long-term development strategy for Busan that relies on three parallel concepts working in tandem: (1) Triport, (2) Cruise City, and (3) Megalopolis.

Triport concept is aimed at maximizing global connectivity by providing sea-air-rail linkage. Specifically, it involves:

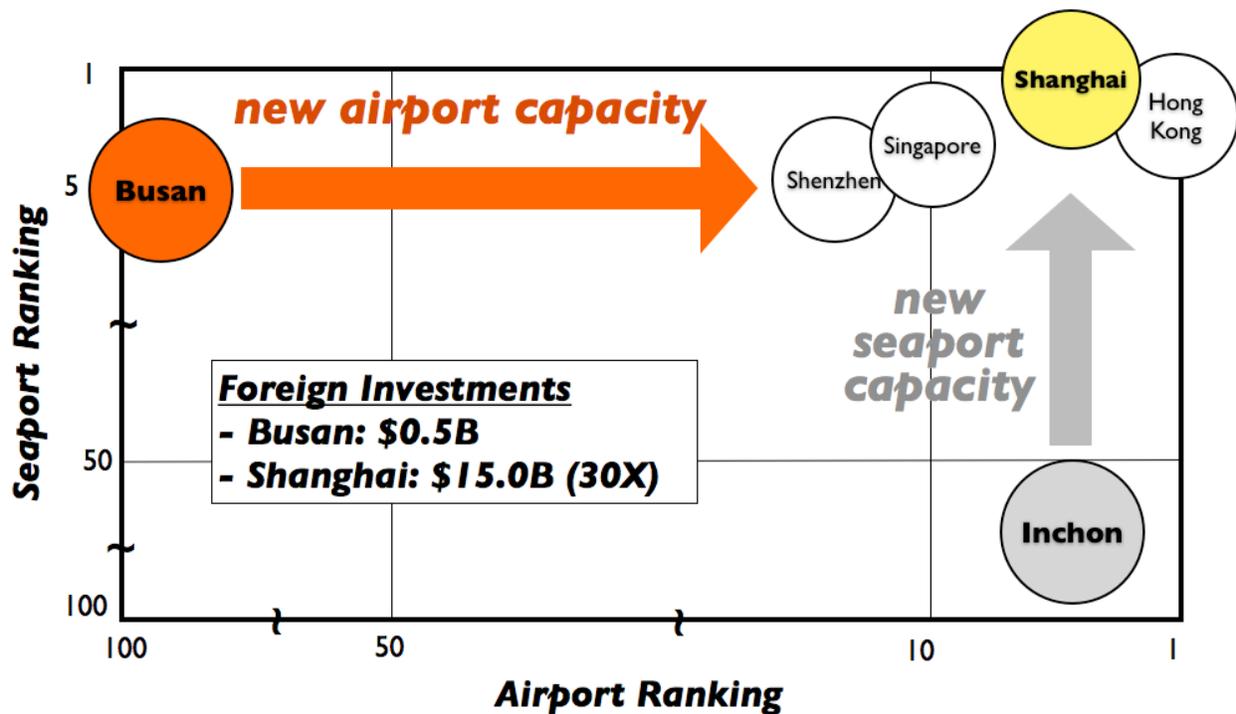
- ✓ Maximizing Busan's seaport potential as both container and cruise ports and unleashing the latent value added productivity increases currently not realized^{xxxiv}
- ✓ Maximizing Busan's airport potential by capitalizing on its proximity to major hubs that are within two-hour flight time, representing 8 percent of worldwide GDP and 500 million in population^{xxxv}

- ✓ Building transcontinental silk road express (SRX) that connects Busan and Moscow in the long run with potential reduction in transit time from 30 days (by sea) to 15 days (by rail)^{xxxvi}

Cruise City concept entails developing a major air-sea embarkation “home port” at Busan. Among others, the concept capitalizes on the significant growth trend in Asian cruise traffic in recent years and key precedents at existing home ports (e.g., Vancouver) where value added economic impacts are observed to be several fold higher than that of non-home ports. It also takes into consideration the importance of airport-seaport proximity for home ports (e.g., Miami).

Megalopolis concept is based on developing an integrated industrial base along the southeastern seaboard of South Korea with efficient logistics system. The concept envisions connecting Pohang (steel), Ulsan (auto, shipbuilding, petrochemical), Changwon (machinery), Geoje (shipbuilding), Kwangyang (steel), and Yeosu (petrochemical) with Busan serving as the mega logistics hub.

OAR-KOI is based on the sea-air major axes of development and specifically points to the imbalance in sea-air synergy in South Korea. A significant level of foreign direct investments (FDI) are lost due to this imbalance. As demonstrated below and discussed in some detail in Section 4.4, increasing airport capacity in Busan will be the first step in unlocking this latent FDI.



OAR-KOI is a long-term development plan that can serve as the maximum potential for Busan. South Korea boasts strong “technocratic” entrepreneurial culture. It has been very effective at

generating economic growth both from technological and physical development fronts. Beyond these two fronts, as Busan endeavors to achieve the maximum potential, we propose exploring the *institutional dimensions* to trigger the next generation growth to take the City closer to its vision, whether it is OAR-KOI or otherwise.

4.3 Institutional and Governance Model for Long-Term Growth

In large measures, the majority of Busan's local economic policies in the past few decades have been to help lower the *production* costs of local businesses to improve their competitiveness through direct or indirect subsidies. These subsidies, among others, have included industry promotion funds designed to reduce borrowing costs for SMEs, establishment of industrial complexes to help lower the local plant building costs, major capital expenditures to improve physical infrastructures, such as ports, roads, and bridges, and hosting global events to increase Busan's brand name recognition worldwide.

Although they provided short-term fixes, as will be explained later, these policies in essence increased the ACMDs and did not fundamentally improve Busan's overall competitiveness. The Citywide institutional overhaul envisioned in this paper is to improve the City's overall competitiveness to trigger sustained economic growth over the long-term. The intended goal is threefold: (1) To help Busan realize its maximum growth potential effectively and successfully, (2) to use Busan as a pilot case to enable potential growth experimentations elsewhere in South Korea, and, (3) more broadly, to help develop urban institutional policy tools that can potentially effect next generation growths in other mature mid-size cities around the world.

Definition of “Metro Zone”: Sea Port-Airport-Smart City Triad

To capitalize on the synergy between Busan's major assets and increase global connectivity, we define the effective “zone” of our institutional analysis, hereinafter referred to as “Metro Zone”, to include the City's seaport, airport, and smart city assets—specifically, Port of Busan, Gimhae International Airport (combined with the new planned airport), and the new Sasang Smart City District development. The Port of Busan as well as Gimhae and its new airport together have potential to enhance Busan's global connectivity significantly both from a goods and people movement standpoint. Together, they have positive effects beyond the City border—by reconfirming Busan as the nation's critical transportation hub and rebranding as a *global multi-modal gateway*. The smart city undertakings in Sasang—together with other ongoing smart city initiatives, including those in *Centum City* and *Haeundae* area—will also help in branding the City's “*smartness*” and attracting key anchor businesses globally within the City border for Sasang as well as the rest of the City, especially in the six pillar growth industries.

The existing institutional and governance structure of the port and the airport assets is multi-layered and complex. The Port of Busan, for example, is under the jurisdiction of Ministry of Maritime Affairs and Fisheries (MOMAF), operated and managed by Busan Port Authority, a state-owned enterprise (SOE), with close interfaces with the City in matters related to port planning and redevelopment, licensing, FTZ administration, etc. The Gimhae International Airport (and the planned new airport), on the other hand, is under the jurisdiction of Ministry of Land, Infrastructure, and Transport (MOLIT), operated and managed under the auspices of

Korean Airports Corporation (KAC), another SOE, and is coordinating closely with the City in most aspects of their planning, operations, and capital improvement activities. For both SOEs, their budgets are under control by the Ministry of Strategy and Finance (MOSF). Streamlining these complex governance structures would be one of the key aspects of the institutional overhaul.

Assessment Framework: “E-City” and ACMD Approach

We use the *E-City* analytical framework described earlier for the comprehensive and rigorous assessment of Busan’s existing institutions. The assessment would start with identifying the institutional barriers to growth that are ACMDs. In general, most ACMDs can be readily divided into the six categories identified below. This division enables us to consider the specific impacts of different classes of ACMDs on the market—including identifying who losers and winners are and their losses and gains—while making some useful generalizations about the overall competitiveness of the market.^{xxxvii} Most of Busan’s past economic policies mentioned earlier, for example, belong to Type 2a and 3 ACMD categories below.

- ✓ Type 1: Laws, regulations, or practices that *eliminate* competition
- ✓ Type 2: Laws, regulations, or practices that *lessen* competition
 - Type 2a: ACMDs that lower the costs of domestic production
 - Type 2b: ACMDs that create barriers to entry to foreign producers
 - Type 2c: ACMDs that artificially raise the costs of domestic production
- ✓ Type 3: Laws or regulations that are *applied differently to different firms* (e.g., SMEs)
- ✓ Type 4: Distortions largely *caused by state-owned enterprises (SOEs)*
 - Type 4a: Privileges in licensing for SOEs
 - Type 4b: Pricing practices of SOEs
 - Type 4c: SOE’s operating both as a regulator and regulated
- ✓ Type 5: Distortions that are largely due to *competition agencies*
 - Type 5a: Distortions created by actions of competition agencies
 - Type 5b: Distortions caused by inactions of competition agencies
- ✓ Type 6: Distortions caused by *anticompetitive state aid* or support

The ACMD assessments in these categories would be performed for multiple industry sectors that serve (or expected to serve) the seaport, airport, and smart city businesses in the *Metro Zone*. Using these ACMDs as levers, an *E-City Simulator* would be used to predict how per capita production will improve if each of the ACMDs are removed. A comprehensive set of solutions to these distortions would then be developed across the dimensions of property rights protection, domestic competition, and international competition.

The actual implementation of the potential institutional growth solutions would be at the City’s discretion. The implementation can be prioritized depending on political sensitivity with respect

to *losers* and *winners*, practical feasibility and difficulty of implementation, various cost implications, etc. As practical, implementation can be also phased over a specified period of time, where *low hanging fruits* with more immediate positive effects could be carried out first strategically to encourage wider community acceptance.

New Governance Structure: RFA and Joint Powers Public-Private Partnership

Once the final growth strategy is decided, the governance structure of the *Metro Zone* needs to be established. We propose using the *Regulatory Framework Agreement (RFA)* approach described earlier for *E-City*. The ACMD assessments on *Metro Zone* would be manifested in the RFA as regulatory *reforms* that are much more liberal than the existing regulations.

Built on the three fundamental pillars of openness to trade, protection of property rights, and pro-competitive regulatory system, the RFA establishes a semi-autonomous regulatory system for the *Metro Zone*. Though limited to the *Metro Zone*, the basic intent of RFA is to improve the perception of Busan's overall regulatory, legal, economic, and governance environment to help the City go *global*, to brand it a *global city*, and to transform the local citizens into *global citizens*.

In addition to specific regulatory reforms, the RFA would also spell out the structure of the organization responsible for the governance of the *Metro Zone*. We proposed this governing body to be one of a *Joint Development Board (JDB)* used in conjunction with the RFA in the *E-City* approach. As described earlier, the JDB is based on a partnership between the representatives from the government and from a group of private developers. The signatories to the RFA itself would be this public-private partnership.

On the government side, the JDB would at minimum have representatives from the “*creating*” government agencies—in this case, the Busan Port Authority, KAC, and the City. Ultimately and ideally, in order for it to be effective, the JDB would need a newly delegated power from the Central government and also inherit existing powers of the creating agencies. On the private sector side, the JDB would be represented by a group of local and international businesses, developers, and investors who are most qualified to help the *Metro Zone* to go global and realize its maximum growth potential. Some of these private sector entities would also be part of the potential concessionaires for infrastructure projects in the Zone. Among others, the role of the private sector would be to provide investment capital, to help gain efficiencies in the operations and management of the *Metro Zone* assets, and to facilitate new developments as necessary for the next generation growth.

As practical, the JDB can delegate the overall management of the *Metro Zone* to a professional executive administrator sourced globally who is responsible for integrating the three disparate components of the *Metro Zone*. Except as otherwise predicated in the RFA, the existing management structure of the creating government agencies could remain largely intact and most of their employees retained—however, they would operate under a different regulatory regime as specified in the RFA.

The JDB partnership would be established as a special purpose vehicle (SPV), which can serve as a conduit to receive private investments that are *non-recourse* to the creating government

agencies.^{xxxviii} In addition to the local government agencies and the private developer group discussed above, the Central government can be a part of the SPV with appropriate revenue sharing arrangement. As desired, the Central government can earmark the revenues thus retained for the benefit of the *Metro Zone* itself, the Southeast region specifically, or disburse them to the National Treasury for more general expenditures and benefits at national level. As necessary and practical, depending on the level of synergy, one or more surrounding cities in the Southeast region can also be represented in the overall *Metro Zone* governance structure. In addition, to increase citizen participation, an entity such as *Residential Advisory Council* can be also established.

Ultimately, the RFA and JDB provide formal, substantive, and competitive building blocks for Busan to access the global market on a much more expanded basis to build a global city and to realize its maximum growth potential.

4.4 Private Sector Engagement: New Busan Airport Privatization

As discussed earlier, sea-air synergy and balanced development is critical to maximizing the growth potential and FDIs. The first step in realizing such potential for Busan is to increase its airport capacity. The new Mayor's official platform during his campaign in 2013 also emphasized the increase in Busan's airport capacity by building a new airport in Busan.^{xxxix}

The issue of a new airport in Busan was particularly contentious during the mayoral election because Busan was competing directly with Daegu—another mature mid-size city in the Southeast region with a long and deep history of rivalry with Busan—for the Central government approval of a new Southeast airport hub. Busan wanted the new airport to be located in Gaduk Island within the City proper to supplement the existing Gimhae International Airport—which was fast approaching its operating capacity and also having major flight safety issues at the current site. Daegu wanted the new airport to be located in nearby Miryang to replace its existing airport—which severely hindered the city's long term development potential in its current location in the middle of its central business district.

The new Busan airport is still at the front and center of the Mayor's economic and political agenda. Beyond the fierce politics surrounding the new airport, it would be in the City's interest to explore the engagement of the private capital and become less dependent on the Central government's fiscal support. Getting the private sector engagement *right* for the new airport would thus be critical for the City, both economically and politically. The new airport can also serve as the first project to implement within the citywide institutional overhaul strategy discussed earlier.

Far more than Daegu, as the City embarks on engaging the private capital and tapping on global investment pool for the new airport, it needs to now worry about its competition with Incheon International Airport (IIA)—in particular, the political climate surrounding the proposed privatization of IIA and complex institutional and governance structure of the Korean airport system as a whole.

Airport Privatization Climate in South Korea: Incheon International Airport Case^{xi}

Historically, the Korean government has generally embraced privatization and private sector participation in infrastructure industry. This was particularly true under the former President Lee Myung Bak's Administration, who embarked on a grand privatization drive in 2008 as a part of the *National Enterprise Advancement Plan (NEAP)*. The main intent of the drive was to carry out the privatization by selling off a partial or full stake in Korea's 27 major SOEs to the private sector. The plan was largely based on two premises: (1) the sales would relieve the Central government from continued financial burden associated with the public infrastructure assets and (2) privatization would improve the SOEs' performance by capitalizing on the operational and management expertise of the private sector.

Many aviation experts view IIA as a "golden goose", a prime global airport asset with significant growth potential. It is owned and operated by Incheon International Airport Corporation (IIAC), one of the best performing SOEs in the nation. IIAC was established in 1999 under the Incheon International Airport Corporation Law (IIAC Law) as an independent public authority to develop, promote, and manage IIA and all its associated assets to compete successfully in the global marketplace.

With the presence of North Korea, IIA serves as the main international gateway for the effectively land-locked Korean peninsula. In 2014, the airport served almost 46 million passengers with over 290,000 aircraft operations and almost 2.6 million tons of cargo. IIA has also been consistently named the best airport worldwide over the past decade by Airports Council International based on their annual Airport Service Quality rankings. Both the Government and the general public of Korea place a strong sense of pride in IIA as an exemplary public infrastructure asset.

In part due to its quality of operations and management, IIAC has done extremely well financially since IIA's opening in 2001. In 2013, for example, IIA generated \$1.6 billion in revenues and \$472 million in net profit, a profit margin of 28 percent. As of 2013, the IIAC assets are valued at \$7.8 billion, comprising \$5.5 billion in equity and \$2.3 billion in liability. The IIAC revenues are split equally between aeronautical (e.g., airline and passenger charges) and non-aeronautical (e.g., commercial income from retail businesses) sources but the non-aeronautical activities have been the most significant contributor to the airport's top-line growth. IIAC's duty free sales, for example, are the highest in the world and its growth often outpaces the growth in the passenger traffic.^{xli} Ironically, IIA's aeronautical revenues have been lagging behind because its charges have not kept up with the competitive levels charged at other comparable airports in the world.

There are two airport SOEs in Korea: IIAC and KAC. Both are under the jurisdiction of the MOLIT, with their budget being controlled by the MOSF. While IIA is the only airport owned and operated by IIAC, KAC owns, operates, and manages the remaining 14 public airports in Korea—including Gimpo in Seoul, handling primarily Seoul's domestic air traffic, and Gimhae in Busan. The Korean government had planned to privatize IIA from the beginning, which explains why IIAC was created as an entity separate from KAC under the 1999 IIAC Law. IIAC and KAC

are sometimes in direct conflict—and the full extent of their relationship and its impact on Korea's aviation market is not well understood even by the two groups. The competition between KAC and IIAC, for example, sometimes causes disagreement on Korea's air traffic control system despite both being under the MOLIT oversight. It is also in KAC's interest to expand the international routes at its airports to secure stable and diversified revenue streams but IIAC insists on concentrating Korea's all international traffic in IIA for efficiency reasons.

In 2008, as a part of President Lee's grand privatization drive mentioned above, the Korean government announced its plan to sell a partial stake in IIAC to the private sector. The stated purpose of the sale was in part to help finance the costly ongoing capital expansions at IIA but, by involving the private sector, also to improve IIA's operational efficiency as well as expand IIA's overall airline network to increase its transfer hub activities. An amendment to the 1999 IIAC Law was formally submitted to the National Assembly in 2009, which proposed selling 49 percent of the IIAC's stake to the private sector with the Government retaining the majority ownership. The proposal also stipulated 15 percent to be set aside for private companies specializing in airport operations while the foreign ownership was to be capped at less than 30 percent.

The IIAC's privatization plan, however, drew strong negative response and public concerns, in particular about handing the nation's main gateway with abundant growth potential over to private and, more so especially, to foreign investors. Many other serious and contentious issues were raised at the time but these concerns can basically be summarized as: (1) draining the national wealth by selling the prime public asset to foreign investors, (2) jeopardizing IIA's public service responsibility, in particular, with concerns about inevitable increase in airport charges that could limit the airport access for some citizens, (3) putting national defense at risk by allowing potential entanglement of special corrupt interest groups, (4) potential diminishing of IIA's long-term value with private sector's profit-driven motives, and (5) proceeding hastily that could result in an undervalued sale. The stated goal of improving IIA's operational efficiency also fell flat given, even without the private sector help, the airport had continuously been ranked the world's best for the last ten consecutive years.

The public outcry was further compounded by the on-going contention between IIAC and the MOSF about the IIAC's dividend payments to the Government and their ultimate uses. In 2013, for example, out of the net profit of \$472 million, IIAC paid \$124 million in dividends to the Government, over 25 percent of its profit. In addition, more than 60 percent of these dividends were used for non-airport purposes such as the nation's railway and highway projects.^{xlii} The contention between the Government and IIAC had to do with whether the proceeds from the IIA's privatization would be reinvested for the benefit of IIA and Korea's airport industry or be directed instead toward other SOEs or to servicing the Government's general debt obligations.

Understandably, IIAC has been opposed to the Government's privatization plan for IIA—which has largely been endorsed by the MOSF. IIAC's primary concern has been losing both the partial control of IIA's operations and of its revenues, with no guarantee on reinvesting the returns from the privatization for IIA's benefit. IIAC, in essence, believes there is no need to involve the private sector. It can be largely self-sufficient both from the operations and capital

expansions standpoint. With the proven operational and financial performance records, IIAC can attain the necessary financing needed for its current and future expansion plans through a combination of its own retained earnings and relatively cheap debt financing from such state institutions as Korea Development Bank and the Korean EXIM Bank—ironically, both under MOSF’s budget control.

In 2010, a national poll indicated 56 percent of the citizens opposed IIAC privatization.^{xliii} Ultimately, due to the public antipathy coupled with the complex dynamics between IIAC and the MOSF described above, the IIA privatization bill was thus shelved permanently. At present, the private sector involvement in IIA has become such a sensitive subject in the public’s eyes to the extent that it is no longer an option for IIA in the foreseeable future.

New Busan Airport Privatization Approach

Among infrastructure assets, airports are more amenable to privatization because, on the one hand, the industry is constantly changing with a high degree of competition requiring continuous improvements in efficiency but, on the other hand, there are ample opportunities both on the aeronautical and non-aeronautical side to generate sufficient revenues to sustain the business fiscally over the long term. Airport privatization, therefore, represents an active and robust market globally, especially for gateway airports. At present, 35 out of the 50 largest airports in the world have been either sold or are planning to sell their stakes or management rights, including those in Australia, the UK, Latin America, and China. Many other transactions are also taking place worldwide for smaller and medium-size airports.

With the IIA privatization *off the table* at least in the foreseeable future, Korea government should still explore and try to capitalize on the potential benefits of privatizing one or more of the nation’s airport assets as a part of the overall national infrastructure development strategy in the long run. For Busan, given the Mayor’s campaign pledge and politics surrounding it, the new Busan airport could potentially be a prime and *timely* candidate for privatization.

The City can also capitalize on the lessons learned from the IIAC experience, especially in responding to the political sensitivity and the concerns of the general public. Although some of the issues could be the same, the new Busan airport would face an entirely different set of issues than IIA—some in their favor and others not, relative to IIA. The new airport in Busan, for example, is not the national treasure that IIA is and does not have the IIA’s track record both operationally and financially. Its business case still needs to be proven—as will be elaborated in some detail in the following—but it would be much less controversial politically. Unlike IIA, securing the private and/or foreign capital and engaging the private sector’s operational expertise for the new Busan airport would be a welcomed undertaking—potentially being viewed as a *win-win* situation for all concerned and supported politically by the local citizens.

Privatization is also a complex topic that requires improving the knowledge of the general public. The concerns about the public service provisions and potential price increases, for example, must be addressed in a proper context. As mentioned, IIA’s airport charges are below the market price, which is good for domestic airlines and passengers in the short run but, in

essence, underpricing means foreign carriers and international passengers are being subsidized by the Korean Treasury—or, ultimately, by the Korean taxpayers in the long run.^{xliv} Ideally, the public service provisions should be limited to those in need and be dealt with outside the pricing domain, which should be primarily market-driven for the ultimate benefit of the Korean government and the general public.

Consideration for a new airport in Busan has had its share of history and political controversies. In 2009, Korea Research Institute for Human Settlements (KRIHS), a research organization of the MOLIT, conducted a study of 34 potential sites for a new airport in the Southeast region of Korea. KRIHS selected two sites—Miryang (tied to Daegu) and Gadukdo (tied to Busan)—for further evaluation, performed benefit-cost analyses of each site, and concluded that the costs of constructing a new airport at each site exceeded the economic benefits. A similar undertaking in 2011 arrived at the same conclusions and, partly driven by the desire to avoid dealing with the regional politics, the Korean government canceled all plans for a new airport in the region.

In 2014, the MOLIT commissioned a new study to forecast the unconstrained demand of the Southeast region, where it was concluded—while the other four airports in the region (i.e., Daegu, Sacheon, Pohang, and Ulsan) have sufficient capacity to handle the traffic forecast through 2043—Gimhae will reach its capacity by 2023. The study, however, did not include an analysis of whether the other four airports would be able to handle the unmet spillover traffic demand from Gimhae. More recently in 2015, MOLIT commissioned Korea Transport Institute (KOTI) and ADPi to conduct an independent site selection study for a new airport in Southeast region. The Government's decision on the new airport is thus pending, awaiting the findings from the KOTI-ADPi study.

After the completion of the 2011 study, Busan revised its proposal for Gadukdo from a single-airport (i.e., a new airport at Gadukdo to replace the existing Gimhae) to a dual-airport policy scheme (i.e., a new airport at Gadukdo to supplement the existing Gimhae). This resulted in a substantial reduction in the opening day capital expenditure from approximately \$10 billion to \$6 billion. A dual-airports policy is common in Korea but its success has varied widely.^{xlv} From an airport privatization standpoint, the financial viability of single- vs. dual-airport policy must be weighed carefully based on the tradeoffs between the capital cost requirements, traffic demand levels, available capacity, and the corresponding quality of service, which are all interrelated. Especially, for dual airport policy, airline buy-in would also be an important factor.

In addition to the basic traffic demand and cost considerations, there are other critical determinants to attracting private airport developers (commonly referred to as “*concessionnaires*”) for airport privatization. Among others, these include concession *duration* (generally 30 or more years), concession *scope* (whether the whole airport or limited to a specific facility such as a passenger terminal building or landside parking), key *economic terms* (e.g., tariff regulations, concession fee structure, revenue/risk sharing opportunities, and other government incentives), *design flexibility* for capital projects (e.g., totally prescribed vs. performance based), and other various *protective clauses* (e.g., provisions for competing airports, changes in tariff regulations, penalties for defaults and early termination).

Given the existing institutional and governance structure associated with Gimhae and KAC, several steps must also be undertaken before the privatization process can start. In general, the lifecycle of airport privatization has three distinctive phases: (1) corporatization to separate out the operational component to be privatized from the public bureaucracy, (2) partial privatization and establishment of a publicly listed company by selling the shares through flotation (i.e., IPO), and (3) full privatization by multi-phase secondary sales through private trades (typically to a single buyer or consortium first followed by multi-layered secondary sales).^{xlvi}

The important first step for the new Busan airport would be the corporatization of Gimhae operations separated from the KAC's overall governance structure. Transforming a historically bureaucratic organization into a corporation and cutting its ties to government policy can often create incentives to improve efficiency, not least by increasing financial transparency and managerial accountability. However, even such a modest initial step may meet fierce resistance from the “parent” organization—since, even in the absence of privatization, corporatization may be seen as a threat to the status of its workers as civil servants. Working through such transitions and determining the appropriate role of the KAC in the overall privatized governance structure would be an important exercise at the outset.

For the new Busan airport privatization to work effectively, we envision a two-phased approach. Broadly, the first phase would entail corporatizing the Gimhae operations independent of KAC and engaging the private sector to improve Gimhae's operational efficiency to its maximum potential, including its financial performance. Once Gimhae's operations and finances are maximized, the second phase would entail transitioning into the new airport development.

In general, in comparison to new “greenfield” assets, which are perceived to be high-risk, existing “brownfield” assets with steady revenue streams are viewed much more favorably by the global investment community. It is thus easier to attract private sector interests for brownfield assets, such as Gimhae. The first phase would provide an opportunity for Gimhae to fully capitalize on the private sector's management and operational expertise to maximize its potential without significant capital investments. With the help of the City through such programs as *TNT2030*, one potential side benefit of such knowledge and expertise would be the opportunity to cultivate and develop the skill base locally in this area. This phase would also provide a proper gestation period for the private sector to fully understand Busan's overall aviation market potential, critical aspects of Gimhae's operations, and local institutional and regulatory settings that would ultimately help develop an optimal strategy when transitioning to the new airport.

We envision the nature of the private sector engagement in the first phase to be a partial or full privatization transaction via a “trade sale” to a private airport concessionaire with a global reputation and operational expertise. Such a transaction will produce substantive *brownfield proceeds*, which can come from both the initial one-time payment from the ownership transfer as well as from any revenue sharing arrangement during the first phase. The brownfield proceeds thus attained can be set aside for the development of the new airport.

Once the overall operations and fiscal health stabilizes at Gimhae, the new airport development can begin. Ideally, by this time, the single- vs. dual-airport policy would have been fully evaluated and formal and rational capital improvement and phasing plans would have been established. In

addition, innovative strategies to grow the airline network and route coverage (whether domestic or international, O&D or transfer, short-haul or long-haul, FSC or LCC^{xlvii}, etc.), to enhance the revenue base (whether aeronautical or non-aeronautical), and to finance the capital programs (e.g., use of credit guarantee financing^{xlviii} to minimize financing cost) would have also been fully evaluated and developed.

As mentioned, the airport privatization could also signal the first phase implementation of the citywide institutional overhaul discussed earlier. Through the privatization, the basic building blocks of the RFA and JDB governance structure could be established. This could also present a potential opportunity to ferret out squarely and early the significant institutional complexity that exist between IIAC, KAC, MOLIT, MOSF, the City, other competing cities such as Daegu, and the private sector.

To align the City's interest with the private sector, the City should be at the forefront to seek out and cultivate independent networking with the private airport concessionaire and global investment community. In addition to the usual suspects, on the investment side, the City should target two investor constituents in particular: institutional investors (pension funds, sovereign wealth funds, etc.) and the new Asian Infrastructure Investment Bank (AIIB).

Institutional investors are playing an increasing role in infrastructure space because their low-risk, stable return appetite and their ability to hold onto their investments for a long period are well aligned with the needs of infrastructure assets. Some institutional investors are now choosing to in-source and invest directly on infrastructure projects without going through their third-party fund managers. Looking outward, direct and early interfacing with the leading global pension funds, sovereign wealth funds, and major insurance companies who are well-versed in infrastructure space would be beneficial for the City—to be better informed and, ultimately, to help design an incentive structure that provide the most efficient deal possible.

Looking inward, the Korean Government has recently announced launching of Korea Infrastructure Investment Platform (KIIP). Inspired by the UK's Pension Infrastructure Platform (PIP) initiative, KIIP is a collaborative investment platform to bridge the domestic infrastructure gap. The platform brings together the Korean Development Bank, major Korean public pension funds such as National Pension Service, and private investors to invest \$10 billion in infrastructure projects in Korea. Given that KIIP is still in the early stage of development, the City should also explore KIIP as a potential funding source for the new airport and, as practical, provide input to help refine and reinforce the scope of KIIP's platform.

Regarding AIIB, as mentioned, the collective mission of international financial institutions (IFIs) is in the domain of the developing world, where mature mid-size cities derive little benefit currently. These cities' dilemma and their need to access quality capital are as acute and significant as the *Emerging 440*. For the newly established AIIB, separate from the more traditional sovereign level undertakings in the developing world, the mature mid-size cities and metro-regions could represent an opportunity for a new, specialized AIIB platform at sub-sovereign level in the developed world. The City can be at the forefront of exploring such platform with AIIB, potentially serving as a pilot case with the new airport privatization project.

5.0 SUMMARY AND CONCLUSION

In the era of rapid urbanization, this paper addresses the critical dilemma facing mature mid-size cities in developed economies. With the demographics stacked against them, these cities are facing now the challenges that the rapidly growing cities in the emerging economies will likely face in the future—that is, how to sustain growth and maintain their economic and political legitimacy when organic growth is no longer on their side and when the conventional tools to gain growth have been depleted. In the post-2008 crisis environment, the declining fiscal health of many national governments is also forcing many cities to take on more responsibilities, fiscal or otherwise. For many mature mid-size cities, business-as-usual thus may not be sufficient at this juncture. They need new and bold ideas to generate the next wave of growth.

In general, we rely on technological advancements and breakthroughs as the primary means to trigger such new growth. In parallel to the technological dimensions, at city scale, this paper proposes an overhaul along the institutional dimensions for further growth. The overhaul is aimed at reducing the existing institutional barriers to growth for more effective engagement of the private capital and to help the mature mid-size cities become more self-reliant.

Two critical aspects of the proposed institutional overhaul are: (1) “*knowing where we are*”—i.e., a complete understanding of the existing conditions through *comprehensive* and *rigorous* assessments of existing institutional barriers and (2) designing *regulatory* and *governance* structure that can effectively reduce these barriers. In particular, barriers that reflect anti-competitive market distortions (ACMDs) that have often stilted second generation economic growth are emphasized. Comprehensive and analytical assessments are also deemed valuable in themselves even if no reform measures are undertaken.

As demonstrated by “*one country, two system*” concept that found success in London, Singapore, Hong Kong, and, more recently, Dubai, institutional reforms that are seen too difficult to implement at national scale can be tested more effectively at city scale. The proposed institutional overhaul is envisioned at city scale and we adopt *Enterprise City (E-City)* model, an urban development approach that focus on regulatory reforms and governance structure. We use Busan, South Korea, as providing a meaningful case example of mature mid-size city where the proposed reform can be demonstrated.

For Busan, we define a *Metro Zone* to include its port (Port of Busan) and airport (Gimhae International Airport) assets and the ongoing smart city undertakings (Sasang District), constituting a virtual jurisdictional boundary upon which the institutional overhaul is implemented. Using the *E-City* approach, we propose the Regulatory Framework Agreement (RFA) and Joint Development Board (JDB) as the key components to the institutional overhaul. The JDB is special purpose vehicle (SPV) founded on a partnership between the representatives from the government and from a group of private developers. The RFA defines the regulatory system for the *Metro Zone* whose signatory is the JDB public-private partnership.

The proposed new airport in Busan can serve as the first phase implementation of the institutional overhaul, where the basic building blocks of RFA and JDB could be established. We propose engaging the private sector through a two-phased approach. Broadly, the first phase

would entail corporatizing the existing airport operations and engaging the private sector to improve operational efficiency to its maximum potential. The second phase would entail transitioning into the new airport development after achieving the maximum financial performance at the existing airport. We envision the nature of the private sector engagement in the first phase to be a partial or full privatization transaction via a “*trade sale*” to a private airport concessionaire. Such a transaction will produce substantive *brownfield proceeds*, which can be set aside for the development of the new airport.

To align the City’s interest with the private sector, the City should be at the forefront to seek out and cultivate independent networking with global investment community—in particular, leading institutional investors (e.g., pension funds) who are at the forefront in infrastructure space and the new Asian Infrastructure Investment Bank (AIIB). With AIIB, the City should explore piloting a new funding platform that is sub-sovereign and in developed world that cater to the needs of mature mid-size cities.

We conclude this paper with a few common lessons learned from OECD countries when implementing major reforms.^{xlix}

- Sound public finances are strongly associated with reform progress
- It is important to have an electoral mandate for reform
- Effective communication is essential.
- Policy design must be underpinned by solid research and analysis
- Appropriate institutions are needed to make the transition from decision to implementation
- Successful structural reforms take time
- Leadership is critical
- Successful reform often requires several attempts
- It usually pays to engage opponents of reform rather than simply trying to override their opposition.
- The question of whether, when and how to compensate the losers from reform requires careful consideration.

APPENDIX A: The South Korean Institutional Reform Story¹

According to OECD, while a number of drivers can be attributed to specific reforms, there have been two factors that have frequently played a particularly important role in spurring reforms historically: *financial crises* and *international agreements*. South Korea in particular has benefited significantly from these two critical factors and from how these factors mutually reinforced each other to accelerate an ongoing reform process.

In South Korea, a long-term program of economic liberalization and macroeconomic stabilization did not begin until the second oil crisis and the 1980 recession. The subsequent reforms in the 1980s replaced the age-old policies—e.g., targeted credit programs, tax benefits, import protection, and promotion of selected industries—with new policies that effected reducing limits on foreign investment, privatizing banks, deregulating interest rates, and cutting tariffs. Korea also replaced price control regulation in 1981 with a comprehensive competition law. The powerful Economic Planning Board was eventually abolished and the competition enforcement agency, the Korea Fair Trade Commission, was subsequently established, which became formally independent in 1994.

Reforms in Korea further intensified following the financial crisis of 1997, which triggered further reductions in trade barriers and restrictions on inward foreign investment. The post-1997 program also included regulatory reforms focused on increasing competition and repealing most exclusions from the competition law, eliminating or revising regulations that constrain competition and enterprise. Financial sector regulation was also strengthened and consolidated into new institutions.

Prior to the 1997 financial crisis and OECD accession in 1996, the FDI played a relatively minor role in Korean development, largely because the policymakers focused on encouraging capital goods and technology imports instead of FDI. Korea maintained significant restrictions on inward FDI, with certain sectors fully closed to incoming greenfield investments, while others partially closed, in some cases, with joint venture obligations.

By the early 1990s, the perceived weakness of Korea's technological base, combined with international pressure and the prospect of joining the OECD, contributed to a major change in direction. The government promulgated a 5-year foreign investment plan to liberalize a series of sectors with successive plans introduced annually to foster further liberalization. When Korea joined OECD at the end of 1996, it accelerated and broadened the scope of its original FDI liberalization plan.

The 1997 Asian financial crisis then led to additional reforms that went far beyond the commitments undertaken at the time of OECD accession. They were further supplemented by privatization and trade reforms designed to increase competition within the domestic economy. Liberalization that was partly intended to attract foreign capital as a counter-cyclical measure in a crisis situation also helped to bring about structural improvements in Korean domestic economy by enhancing competition and introducing principles of corporate governance. As a

result of these crisis-induced policy changes, the FDI inflows in Korea became 12 times higher in 1999 than five years earlier.

At an industry-specific level, reforms that began in the telecom industry in the 1990s have led to a market that is now open to competition. In transport, rate controls were lifted in the 1990s and barrier to entry conditions have since been eased. In electric power, on the other hand, though largely restructured, open access and competition in the industry have been slow in coming.

APPENDIX B: ACMD Categories and Examplesⁱⁱ

1. **Type 1:** Laws, regulations, or practices that *eliminate* competition (e.g., by blocking certain competitors entirely and giving complete access to others, having a direct impact on the number of competitors)

Examples: Requirement that banks must have a specific level of local currency reserves in order to operate in a market; or a particular technology being illegal in a given market (e.g., the VolPⁱⁱ market restrictions in Korea).

2. **Type 2:** Laws, regulations, or practices that *lessen* competition (e.g., by elevating or reducing the costs of certain companies)

Examples: Local content or local working requirements that increase costs of foreign investors; or any price ceiling or floor measures.

- **Type 2a:** ACMDs that lower the costs of domestic production. Domestic producers gain and foreign producers experience loss in both domestic and international markets.

Examples: Government artificially reducing the cost of capital, e.g. in the form of land, water, and electricity; or most of the local production cost reduction measures undertaken by Busan in the past.

- **Type 2b:** ACMDs that create barriers to entry to foreign producers. Domestic producers gain and foreign producers experience loss. All consumers—both domestic and international—experience loss.

Examples: Occupational licensing, which prevents foreign countries from gaining domestic market access.

- **Type 2c:** ACMDs that artificially raise the costs of domestic production. Domestic producers experience loss while foreign producers tend to gain. Both domestic and international consumers tend to lose out.

Examples: Any extreme local health/safety requirements or environmental regulations that incur extra costs to local producers not faced by producers abroad.

3. **Type 3:** Laws or regulations that are *applied differently to different firms*, or regulatory exemptions given to some firms, effectively raising overall consumer prices

Examples: Small business set asides or tax exemptions; or entry barriers for large foreign firms reserved for SMEs in Korea (many of these measures are aimed at building up the SME businesses but what they need are not set asides but a legal, economic, and regulatory environment that is not skewed towards incumbent companies).

4. **Type 4:** Distortions largely caused by state-owned enterprises (SOEs) favored by many countries

- **Type 4a:** Privileges in licensing for SOEs. Because SOEs are often expected to maximize revenue instead of profit as in the case of private firms, these privileges generally have much deeper anticompetitive effects than similar measures applied to private firms.

Examples: Government allowing only the SOE postal company to deliver mail, making any competing firms illegal and curbing any innovation in the sector

- **Type 4b:** Pricing practices of SOEs. SOEs are able to price at levels that, while not strictly predatory by antitrust standards, might lead to forcing competitors to exit the market

Examples: Chinese SOEs in global markets that are able to price at very low levels due to a network of subsidies and privileges received from their government.

- **Type 4c:** SOE's abuse of regulatory process by operating both as a regulator and a regulated firm

Examples: Government acting as both regulator and market participant in energy and telecom markets

5. **Type 5:** Distortions that are largely due to actions or inactions by competition agencies

- **Type 5a:** Distortions created by actions of competition agencies, i.e., acts of commission, which typically occur when agencies favor competitors rather than the process of competition. Supply would decrease and prices would increase.

Examples: Blocking of the attempted acquisition by Coca Cola of China's Huiyan Juice Company, which was branded as a foreign takeover of a favorite Chinese brand.

- **Type 5b:** Distortions caused by inactions of competition agencies, i.e., acts of omission, which often are the result of government's toleration of private anticompetitive activity. Supply would decrease and price would increase.

Examples: Competition agencies not intervening in anti-competitive government regulations because of political fears or repercussions.

6. **Type 6:** Distortions caused by anticompetitive state aid or support. Many governments give firms subsidies and other subventions that may or may not be anticompetitive.

Examples: Services in the General Economic Interest (SGEI) in EU, e.g., the aid given to the German Deutsche Post in Europe.

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ENDNOTES

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^v For more detailed discussions on Top 600, see Dobbs et. al. (2012), MGI (2011), MGI (2012), and MGI/MIP (2012).

^{vi} While “old” Detroit over the past 60 years went into a deep decline, the 10 counties around Detroit today compose one of the most successful and prosperous economic regions in the U.S. See Barber (2013).

^{vii} OECD—Organization for Economic Co-operation and Development

^{viii} Outside technological breakthroughs, which are often not under the direct control of cities.

^{ix} See, for example, North (1984, 1987, 1991, and 1992).

^x For more detailed discussions of OECD reform history, see OECD (2010a, 2010b, and 2011).

^{xi} For more more detailed discussions on ACMD, see Singham (2014, 2015a, and 2015b) and Singham et. al. (2014).

^{xii} In the transition towards liberal market policies, many governments also transitioned to social democracies, in which economic incumbents had the political power to push for protections.

^{xiii} See OECD (2015) for more detailed information GfG program. Appendix A provides additional discussion of South Korea’s institutional reform history.

^{xiv} SME—small and medium-sized enterprise

^{xv} For additional discussion of the anecdotal performance of SEZs worldwide, see Economist (2015).

^{xvi} See Agrawal (2011) for additional discussion on the impact of FDI on GDP for SEZs in China and India.

^{xvii} According to Romer, a “concession” zone does not create value for the entire society. It creates a few winners and many losers and gives special favors for the few winners. Tax-incentivized zones that favors taxpayers within the zone (winners) but puts additional burden on the other taxpayers in the rest of the country (losers) are a typical example of a “concession” zone.

^{xviii} Enterprise-wide systems, such as Enterprise Resource Planning (ERP), seemed to be a dream come true when they first appeared in the 1990s. These commercial software packages promised seamless integration of all information flowing through a company—financial, accounting, human resource, supply chain, customer, etc. At the end of the 1990s, companies were spending \$10 billion a year on enterprise systems. Paired with this massive spending were stories about failed and out-of-control projects. Mobil Europe spent hundred of million dollars on its system only to abandon it when its merger partner objected. Dell Computer found that its system would not fit its new, decentralized management model. Applied Materials gave up on its system when it found itself overwhelmed by the organizational changes involved. Dow Chemical spent 7 years and close to a half billion dollars implementing main-frame system before deciding to start all over again on a client-server version. For additional discussions about enterprise systems, see Carr (2003), Davenport (1998), Farrell et. al. (2003), Feld et. al. (2004), Foster (2003), Kanakamedala et. al. (2003), Kaplan et. al. (2005), Rettig (2007), and Ross et. al. (2003).

^{xix} In order to truly benefit from Big Data, it is necessary for these cities to have a significant data exhaust. To provide this, privacy laws and freedom of information flow laws must be such that it is possible for the applications to have enough raw material to be useful. Without this, the notion of Big Data is rendered far less valuable.

^{xx} See Brook (2013) for additional discussion on the development of Dubai as a global hub.

^{xxi} See Singham (2015a) for more detailed discussions of these examples.

^{xxii} For more detailed discussion on Charter City concept, see Romer (2014, 2015). For more information on Romer's endogenous growth theory, see Romer (1994).

^{xxiii} Romer defines a "reform" as a change in the rules that improves life for most of people. A reform is not deregulation and it does not involves replacing a rule with no rule but instead replacing an outdated rule with a new, better rule. A true reform also creates value in the sense that the total gain for all winners is greater than the loss for the losers. In a reform zone, the government must be able to enforce the new rule. See Romer (2014) for additional discussion on the test for whether a zone is reform or concessional.

^{xxiv} Romer's examples of imported government services include (1) the Chinese government's imported services from FAA for Beijing Olympics in rewriting its aviation safety rules, (2) Mauritius' imported services provided by the supreme court of Britain, and (3) Solomon Islands' imported police and judicial services from Australia

^{xxv} See Gingrich (2010) for additional discussion of *Free City*.

^{xxvi} Sustainable institutions that contribute to value creation are those that have been sculpted and strengthened by fundamental economic forces. One of the criticisms of *Free City* has been that merely transplanting an institution from one country to another does not give rise to a strong and sustainable institution if the culture that institution is designed to promulgate is not present in the country.

^{xxvii} Among others, the *E-City* concept is currently being applied in Morocco, Bosnia & Herzegovina, India, and Saudi Arabia.

^{xxviii} The ACMD diagnostic is based on a number of different country analyses carried out by the World Trade Organization Trade Policy Review, the trade barrier analysis of the EU and US, IMF Article IV Surveillance, and other analyses of the regulatory, legal and economic environment of a country. The *E-City Simulators* have been found to be an order-of-magnitude more accurate than World Bank and World Economic Forum indicators.

^{xxix} See SROK (2000, 2002a, 2002b, 2002c, 2005, and 2009) for national, provincial, and local government regulations that affect and pertain to planning and development policies at city level.

xxx For example, as will be discussed in more detail later in this paper, there is an ongoing regional political dispute between the Cities of Daegu and Busan regarding the Central government support for a new airport in the southeastern region of Korea.

xxxi “*Chaebol*” is a South Korean form of business conglomerate. They are typically global multinationals owning numerous domestic and international enterprises, controlled by a chairman who has power over all the operations.

xxxii See Barber (2013).

xxxiii 2013 Vision Korea National Conference was sponsored by Maeil National Newspaper (MBN) in November 2013 in Seoul. According to Arthur D. Little, the growth model presented in “*The One-Asia Revolution: Korea Ocean Initiative (OAR-KOI)*” is estimated to unleash 70 trillion won in new economic activity.

xxxiv Latent productivity gain was estimated based on 50% of the potential value added productivity gain (per TEU processed) observed at Rotterdam seaport.

xxxv Included are Beijing, Shanghai, and Hong Kong metro-hubs in China, Tokyo and Osaka metro-hubs in Japan, and Seoul metro-hub in Korea.

xxxvi Potential Busan-Moscow SRX has been recently envisioned by both South Korean and Russian governments.

xxxvii See Appendix B for additional explanation and examples of each ACMD category.

xxxviii The JDB SPV would represent the “holding” entity providing an overarching governance structure for the *Metro Zone*. Separate SPVs can be established at individual project levels, as needed, under the JDB SPV structure.

xxxix The new mayor’s official platform during his campaign in 2013 included, in the order of priority, (1) to get the Central government approval and support for the new airport in Busan (currently proposed in Gaduk Island), (2) to create 200,000 new jobs by 2018 when his term ends, (3) to establish a comprehensive emergency management system to protect Busan’s citizens, (4) to improve the citizens’ lives through urban renaissance, (5) to provide economic and social balance between West and East Busan, and (6) to enhance the public transportation efficiency.

xl IIA privatization discussion presented in this section is largely based on In et. al. (2015).

xli Although IIA’s duty free business is currently dominated by Korea’s chaebol companies like Lotte and Shilla, it should be noted the Government has been imposing a compulsory obligation to involve domestic SMEs in duty free business.

xlii According to the original Act on Special Accounts for Traffic Facilities in Korea, IIAC’s dividend payments had to be reported and managed by MOSF under a separate airport account. An amendment enacted in 2008, however, enabled the balance in the airport account can be transferred to accounts for railways and roads.

xliii Regardless of the approach, the opposition parties and some civil society groups are against any or all privatization efforts involving IIA altogether.

xliv Whether the Treasury pays or domestic passengers pay is another question. Opportunity costs associated with the Korean Treasury subsidizing domestic passengers that could be used for other purposes beneficial IIA as a whole must be considered.

^{xlv} Although not common outside Korea, a dual-airports policy is common in Korea. When IIA opened in 2011, for example, the existing international airport, Gimpo, remained open to provide domestic service and shuttle flights from Seoul to Beijing, Shanghai and Tokyo. Also, when Muan International Airport opened, the existing Gwangju Airport remained operational to provide domestic service.

^{xlvi} For Example, Heathrow airport progressed from being under British Airport Authority, a national SOE, to BAA plc, a listed company, to Ferrovial Consortium, a private company, to, finally, Heathrow Airport Holdings, a multilayered ownership structure represented by several major pension funds around the world. See Condie (2014).

^{xlvii} FSC—full service carrier; LCC—low cost carrier

^{xlviii} Credit Guarantee Financing or Facility (CGF) was used in the U.K. for PPP projects where the public sponsors themselves provided short-term better-than-market construction debts for P3 concessionaires by creating an arbitrage situation—i.e., capitalizing on their low borrowing costs and effectively retaining some part of the capital cost differentials between the public and private sectors. In addition to having strict post-construction refinancing clauses, the repayment guarantees on the short-term loans was secured by monolines, thus causing little impact on the sponsor's deficit risk.

^{xlix} See OECD (2010a, 2010b)

^l See OECD (2010a, 2010b, 2011, and 2015) for more detailed discussions.

^{li} See Singham (2014) for additional ACMD discussions.

^{lii} VOIP—Voice over Internet Protocol