Introduction

The integration and interlinkage of national markets through regional cooperation and integration (RCI) can add a set of drivers to productivity growth. The first chapter of this book reviews the drivers, instruments and tools that link RCI to productivity. Multilateral institutions have identified key drivers of productivity for emerging economies. This study first characterizes types of productivity for the reader. The related literature identifies key drivers of Total Factor Productivity (TFP) relating both to macro- and microeconomics. On the real, microeconomy side – the sole focus of this book – trade openness, foreign direct investment flows, trade-related infrastructure, quality of (skilled) labor inputs and the efficient allocation of human resources, economic diversification through structural change policies, financial sector development, and the business-oriented institutional and regulatory framework explain most of TFP growth.

The linkage of markets through regional integration can add a set of drivers to TFP growth in terms of:

- trade agglomeration economies and the human capital intensity of regional production;
- regional economies of scale;
- structural transformation and the regional heterogeneity of production;
- increases in regional 'value-added' content in trade;
- opening of the economy to trade.

This study focuses primarily on these regional drivers of emerging economies' productivity.

A review of empirical literature finds that only a few key RCI policy instruments energize the regional integration drivers listed above. These instruments fall under the policy categories of:

- competition, skills and innovation incentives;
- agglomeration from cluster development;
- economic corridor development and connectivity;

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- trade facilitation;
- foreign direct investment (FDI) and related technology transfer.

The *World Development Report* (World Bank, 2008) demonstrates clearly that the way to get both the benefits of agglomeration and scale of production, and the benefits from a convergence of welfare is RCI. This is confirmed by the Baltic Sea Region (BSR) experience, as analyzed in Chapter 2. In addition, an extensive collection of literature of recent years demonstrates that regions, as shown in the BSR, greatly benefit from active government policies, such as fiscal, cohesion, labor market and financial inclusion policies in terms of welfare convergence.

As part of its efforts to develop a second generation of RCI policies, the Asian Development Bank (ADB) draws insights from comparable efforts in other areas of the world. Chapter 2 outlines how BSR economies have leveraged RCI drivers of productivity. Following the Baltic Sea Region experience, greater regional integration strengthens tendencies to agglomerate economic activity in clusters. Small and medium-sized enterprises (SMEs) co-locate with larger, especially foreign-owned, technology companies. Targeted finance helps them integrate into regional and global innovation and production networks. Therefore, with the absorption of more skilled labor, employment-based welfare can spread through a region more integrated by way of an 'ecology-of-clusters'. Key financial market-driven policies designed to enhance SME productivity can support trade and supply-chain finance. More unconventionally, second generation regional integration finance tools can also be instituted. Clusters contribute significantly to innovation and further product heterogeneity in open economies. Successful clusters include economic networks or corridors, when these form competitive regional cluster ecologies. Broadly, the literature finds a positive and significant relationship between effective, independent competition policy and TFP growth. Trade integration, which leads to increased market size of a region, further increases competitive pressure, and this enhances regional productivity growth. Overall, as a result, BSR economies have broadly avoided a slowdown in productivity growth, even during the global financial crisis (except for one year, 2009).

As the Baltic Sea Region shows, European (inclusionary) cohesion policies undertaken on national levels can be influenced by regional consensual coordination mechanisms. This is implemented effectively in the BSR through an innovation steering group. Horizontal policy coordination can work by setting common goals for regional technology platforms, innovation cluster networks, diagnostic- and indicator-based tools and infrastructure. It can help develop the free movement of researchers, knowledge and technology across a region.

The remainder of Chapter 2 details the interconnected layers of policy tools applied in the Baltic Sea Region and how they stack up and relate to each other to effect regional 'embeddedness', connectivity and proximity. It details the indicator and measurement system of the policy tools, and how they have come out in measuring Baltic Sea Region integration progress, for instance, in terms of innovation-driven productivity growth and increases in competitiveness. Then it focuses on one particular policy and knowledge tool, the cluster observatory, and how this tool has fared in terms of achieving policy objectives. Finally, the chapter draws lessons that may be strongly related to the Greater Mekong Subregion (GMS) and Association of Southeast Asian Nations (ASEAN) Economic Community (AEC) contexts in Asia. This sets the stage for building a road map for development of innovation cluster ecologies in Asia.

Chapter 3 examines opportunities for Asian regions to better exploit RCI drivers of productivity. Acknowledging the huge differences between the BSR and Asia, it spells out key lessons from the BSR experience, which are applicable in the context of Asian regions. First, BSR economies were quickly reviving their equivalent of the economic mystique of the Eurasian medieval silk roads, the trading union of the 'Hanse', in their revival of cooperative bottom-up and consensual regional development institutions. Secondly, these resurrected institutions successfully leveraged the regional drivers of productivity growth by exploiting the potential agglomeration and scale economies, and by catalyzing 'connections activities' between the economies' complementary firm structures, by developing high-value-added global value and logistics chains, triggering large regional productivity benefits from structural transformation. Thirdly, this was accomplished in an inclusive manner, by prioritizing regional institutional twinning for human capital accumulation, especially in economically lagging areas of the region. This can, for instance, involve partnering of sector-specific research labs.

Also in this chapter, GMS countries' trade structure is characterized by extra-regional interdependence in global value chains. This is apparent from detailed GMS regional value-added trade flow data. The numbers are corroborated by field visits and interviews. The main export zones and research and innovation clusters in Yunnan Province, the People's Republic of China (PRC), Thailand and Viet Nam depend on intermediate inputs from the industrialized East Asian economies and from the eastern coastal areas of PRC. This is also where the bulk of value-added products are exported from (plus the European Union and North America). The basic concept of 'trade in value-added' is that domestic value-added combines with foreign value-added to produce exports. The GMS can still be characterized as a region dependent on central-urban nodes located at

the coast for the integration in global value chains (GVCs). This situation in the GMS indicates clear opportunities for consensual governance, policies and tools that build up a cooperative innovation cluster investment plan in the region. The study provides a roadmap for undertaking successful innovation and skill-based cluster ecology development in this region.

First, the GMS needs to establish a regional coordinator (secretariat) of cluster-network-based cooperation (see Figure I.1). Such a coordination arrangement can be housed in a critical innovation hub of the GMS. The coordinator will act as facilitator, creating and maintaining the public sector, the business community, and the non-profit education and research sector relationships (triple helix), and the international networks in the
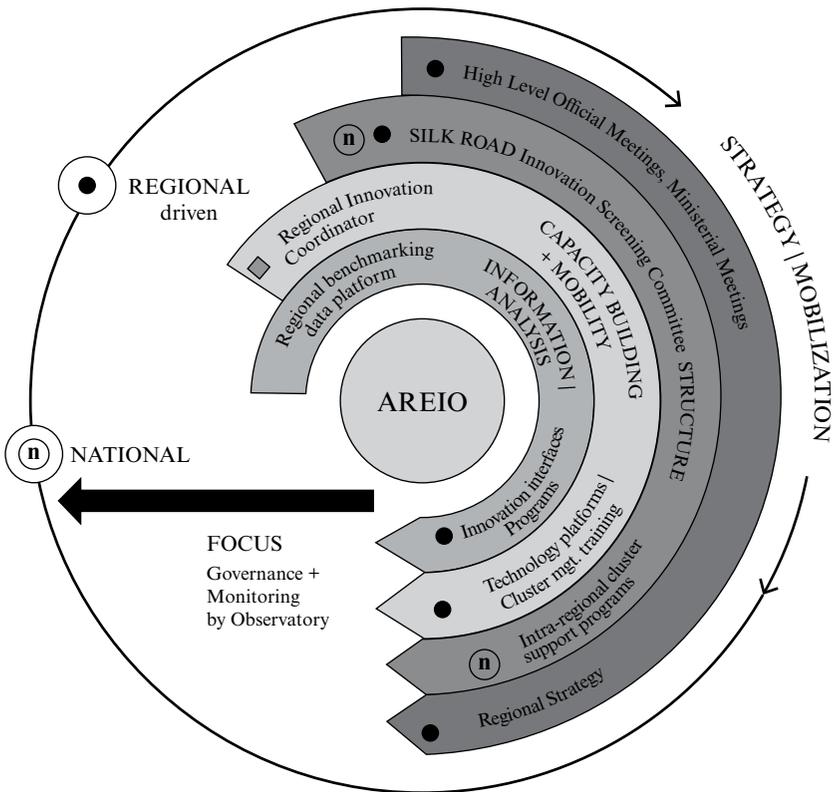
Source: Author.

*Figure I.1   Asian Regional Economic Integration Observatory, strategy
and mobilization*

related products and fields. Under the coordinator structure, representatives from different countries, according to national priorities, could chair priority innovation steering groups. The kinds of instruments and tools that can be employed in the GMS context are platforms and tools for dialogue and networking between triple helix cluster stakeholders, including construction of actual and virtual meeting spaces, creating of knowledge-enhancing partnerships and twinning arrangements (such as under the proposed Asian Regional Economic Integration Observatory, AREIO), and building of comparable innovation cluster statistics and data anchored in geography (geographic information systems (GIS)-compatible).

As became clearer in field interactions in GMS and Central Asia Regional Economic Cooperation (CAREC) economies, there is need for policy and knowledge tools which can drive a region into a successful ecology of clusters linked with economic corridors via agglomeration economies, via an increase in value-added shares in and along regional and global value chains, and via structure transformation into high skill industries and services, which, taken together, will exploit burgeoning heterogeneity in production and trade across borders. Key national policy instruments such as labor market policies (migration, skill development), technology and innovation policies, cluster and corridor policies, and competition arrangements need strengthening, and at the same time they require regional coordination so that regional growth and welfare can be augmented. The Baltic Sea Region's bottom-up creation of a set of decision tools for cluster development and innovation collaboration – which catalyze business connection (embeddedness), create bridges among stakeholders (physical and figurative, referred to here as connectivity), and strengthen economic flows (proximity) measured in value-added along historic trading routes or modern 'silk roads' – can and should inspire commensurate action in Asian regions. The knowledge toolbox for this has yet to be built, including, foremost, an Asian Regional Economic Integration Observatory (AREIO).

Apart from presenting a succinct roadmap for developing Asian regional cluster ecologies in the last chapter, the ADB technical assistance for this book was primarily to tailor best-practice RCI knowledge platforms on productivity for emerging second-generation Asian RCI requirements. As part of this study, a pilot, web-based observatory is set up for GMS and CAREC cases, and details on design, data, indicators and visual interface are presented. There are now, worldwide, a number of existing and developing observatory platforms, produced by development agencies, the United Nations, governments, universities and companies.

Finally, in the last chapter the book recommends, in detail, the development of an Asian Regional Economic Integration Observatory (AREIO).

First, such an observatory provides a regional consensual focus for iden-
tifying regionally inclusive and beneficial activities with high economic
pay-offs. Secondly, an AREIO focuses on activities that catalyze connec-
tions, by creating a knowledge platform for data management and analysis
aligned with this objective. Thirdly, this book shows how to make such a
knowledge platform particularly successful for (a) policy dialogue oriented
toward the development of networks of strong regional innovation clusters
(an 'innovation network ecology'); (b) regional cost–benefit assessment of
policy actions and investments with a dedicated cross-border focus; and (c)
identification and prioritization of how to meet common competitiveness
challenges and related visualized sharing of knowledge among regional
actors. In the case of building innovation cluster ecologies, which, by their
very nature, require experimentation, it is even more important than in
other cases of policy and investment to observe what works and what does
not.

The observatory in the Baltic Sea Region has been developed over time
through a series of European grants. The ongoing grant focuses on updat-
ing open data and mapping of innovation cluster networks, and related
standard indicators. Data for a regional competitiveness and inclusive
growth analytical frame is linked to indicators of resource fundamentals,
drivers and outcomes. The Stockholm School of Economics is the content
manager, to ensure sustainability and accessibility of cluster observatory.
In Asia, significantly better open data, indicators and analysis platforms
for regions need to be developed to allow triple helix stakeholders to
develop objective and detailed understandings of regional integration
assets and constraints, as well as distribution of benefits and costs.
Multilevel governance arrangements (local, national, regional) need to
be continuously informed about developments in the regional productiv-
ity and income distribution landscapes. This requires static and dynamic
data analysis on a regionally standardized basis. Very importantly, Asian
regions need to institute a site content manager who ensures quality of
a trusted web-source for decision makers, and ultimately the AREIO's
long-term sustainability. An outline of the European Cluster Observatory
budget and management framework can serve as initial guidance.