Summary

ADB's Asia 2050: Realizing the Asian Century

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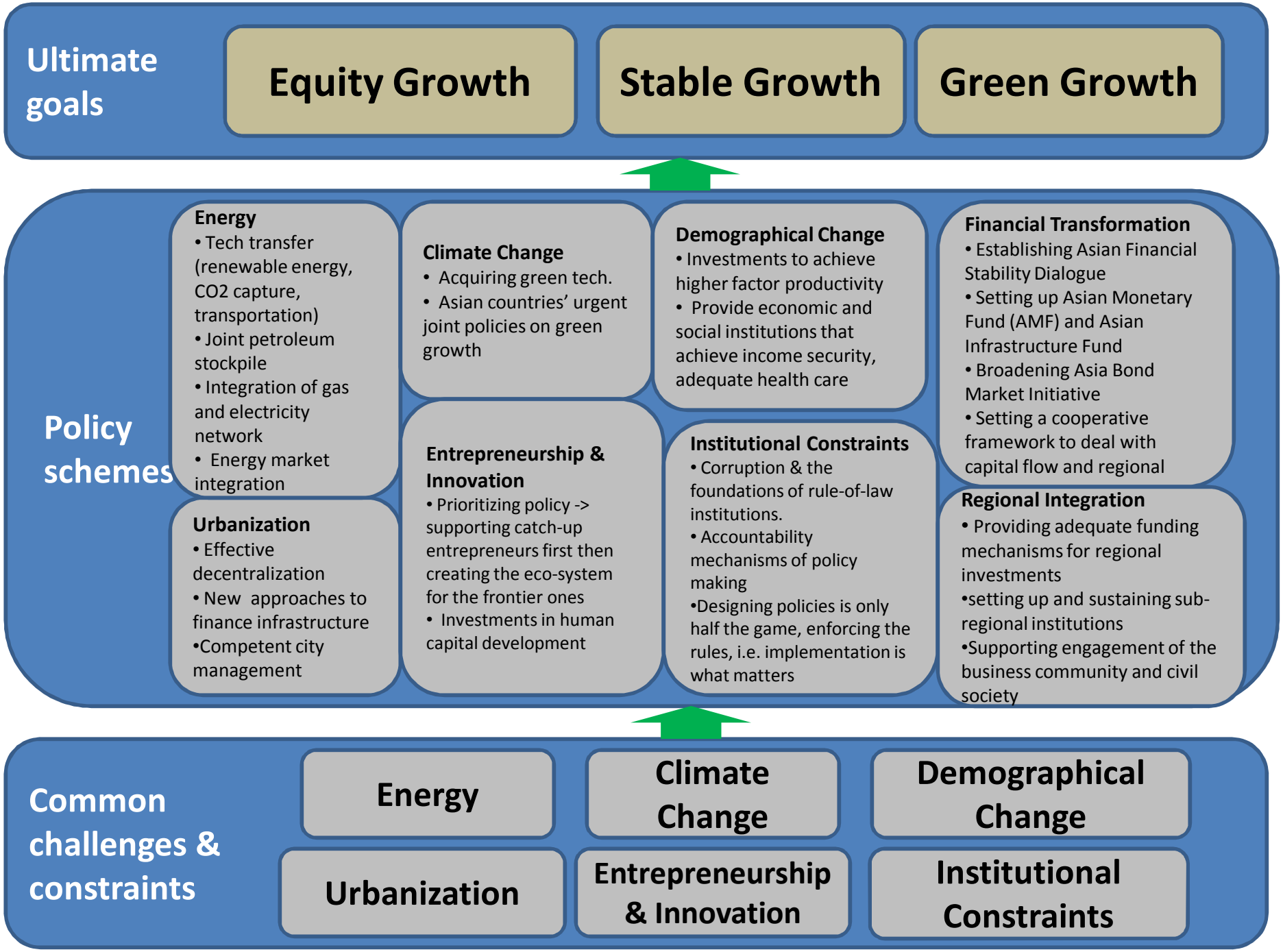
ADB's Asia 2050: Realizing the Asian Century

Asia is in the midst of a truly historic transformation. If it continues to grow on its recent trajectory, it could, by 2050, account for more than **half of global GDP**, trade and investment, and enjoy widespread affluence. Its per **capita income could rise sixfolds**. It thus holds the promise of making **some 4 billion Asians**, hither to commonly **associated with poverty and deprivation**, affluent by today's standards.

By nearly doubling its share of global GDP (from 27 percent in 2010 to 51 percent by 2050, Asia **would regain the dominant global economic position it held some 250 years ago**, before the Industrial Revolution. Some have called this possibility the **"Asian Century".**


Ultimate goals
Equity Growth
Stable Growth
Green Growth
Policy schemes
Energy
• Tech transfer (renewable energy, CO2 capture, transportation)
• Joint petroleum stockpile
• Integration of gas and electricity network
• Energy market integration
Climate Change
• Acquiring green tech.
• Asian countries' urgent joint policies on green growth
Demographical Change
• Investments to achieve higher factor productivity
• Provide economic and social institutions that achieve income security, adequate health care
Financial Transformation
• Establishing Asian Financial Stability Dialogue
• Setting up Asian Monetary Fund (AMF) and Asian Infrastructure Fund
• Broadening Asia Bond Market Initiative
• Setting a cooperative framework to deal with capital flow and regional
Urbanization
• Effective decentralization
• New approaches to finance infrastructure
•Competent city management
Entrepreneurship & Innovation
• Prioritizing policy -> supporting catch-up entrepreneurs first then creating the eco-system for the frontier ones
• Investments in human capital development
Institutional Constraints
• Corruption & the foundations of rule-of-law institutions.
• Accountability mechanisms of policy making
•Designing policies is only half the game, enforcing the rules, i.e. implementation is what matters
Regional Integration
• Providing adequate funding mechanisms for regional investments
•setting up and sustaining sub-regional institutions
•Supporting engagement of the business community and civil society
Common challenges & constraints
Energy
Climate Change
Demographical Change
Urbanization
Entrepreneurship & Innovation
Institutional Constraints

Common Challenges & Constraints

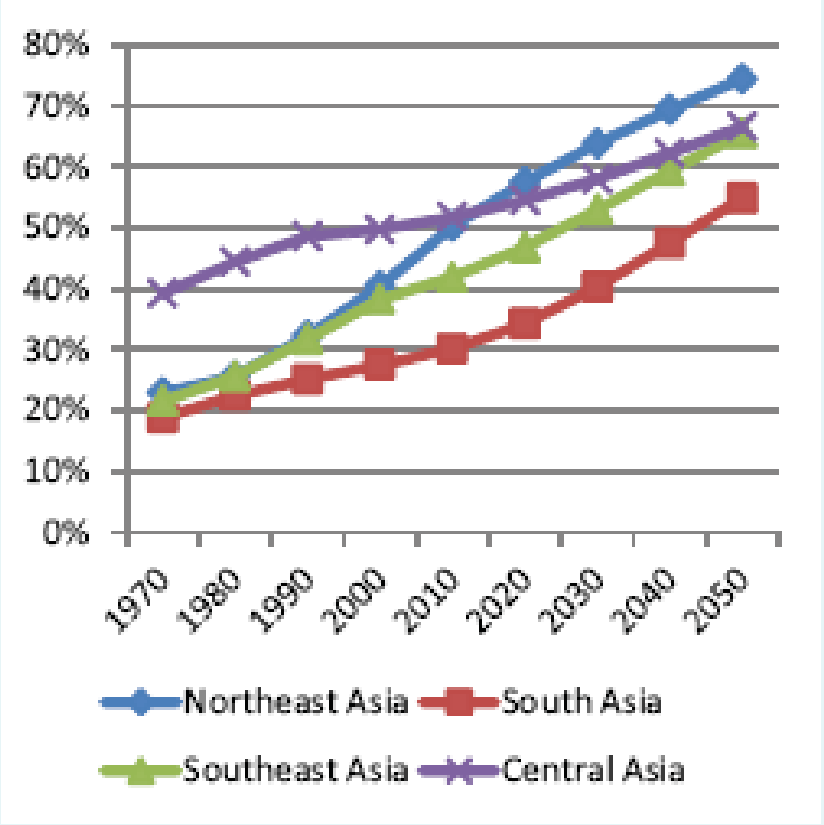
(1) Urbanization

Table 1 | Asia's urban population will nearly double by 2050

Asian Urbanization	2010	2050
Total Urban Population (millions)	1,649	3,247
Northeast Asia	805	1,284
South Asia	496	1,261
Southeast Asia	252	520
Central Asia	96	182
Urbanization (%)	41%	64%
Northeast Asia	50%	74%
South Asia	30%	55%
Southeast Asia	42%	65%
Central Asia	52%	67%

Source: UN World Urbanization Prospects, 2007 Revision.

Figure 1 | Northeast Asia will be the most urbanized region of Asia

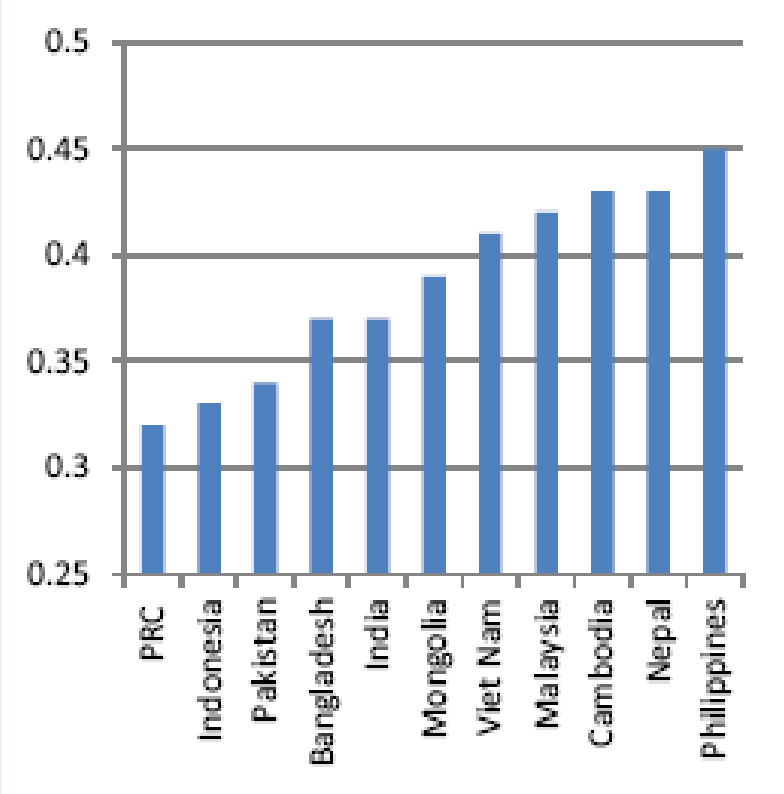


Source: UN World Urbanization Prospects, 2007 Revision.

Common Challenges & Constraints

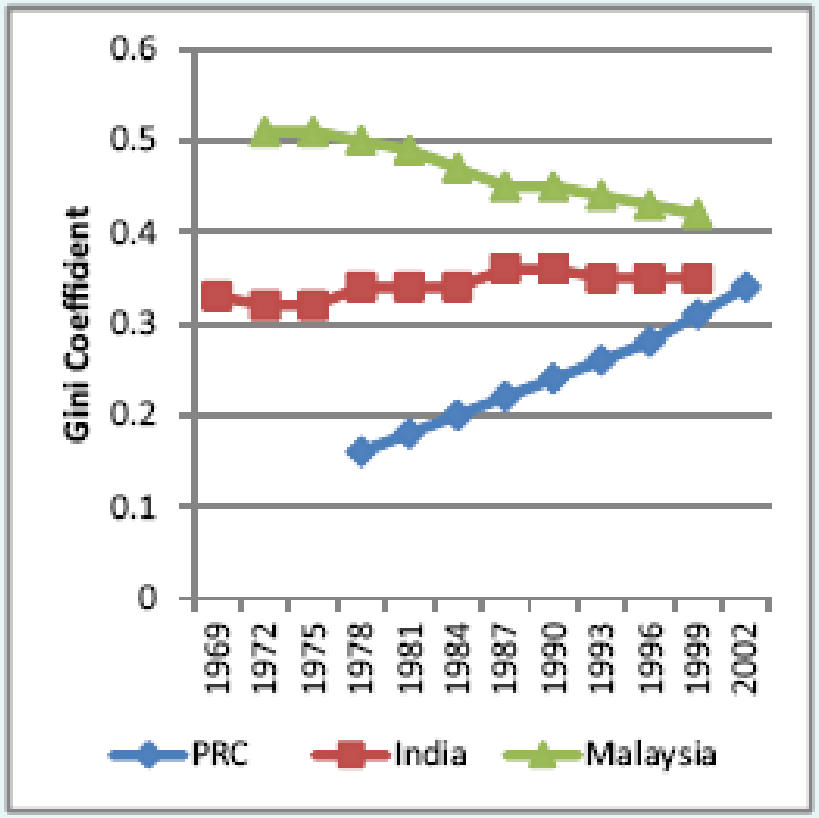
(1) Urbanization

Figure 2 | Urban Gini coefficient (by country)



Source: UN-HABITAT State of World Cities 2010/2011.

Figure 3 | Urban Gini coefficients over time

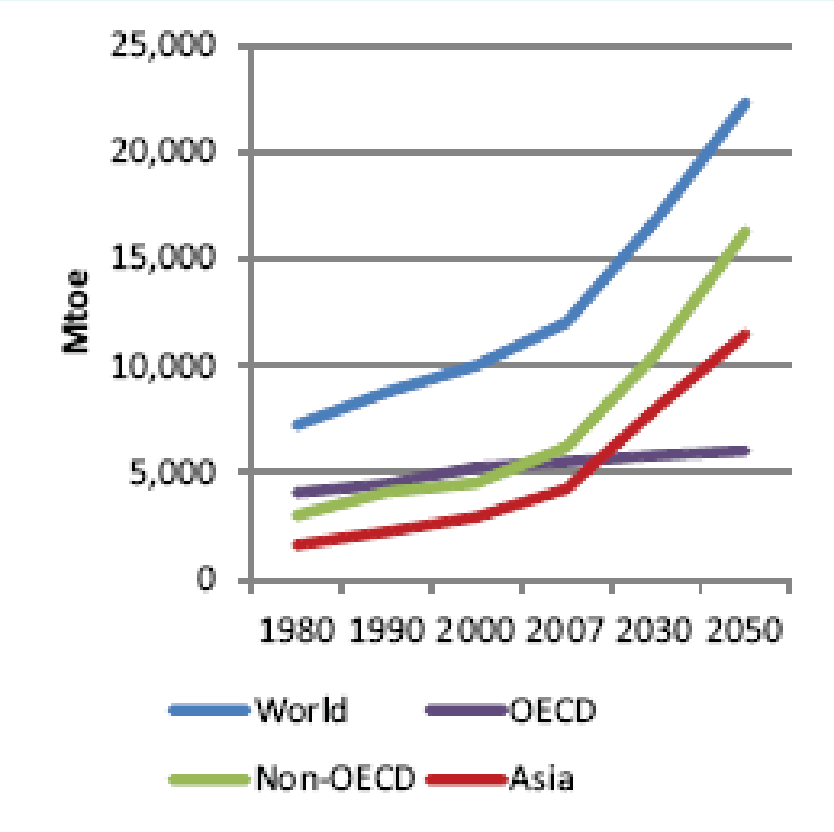


Source: UN-HABITAT State of World Cities 2010/2011.

Common Challenges & Constraints

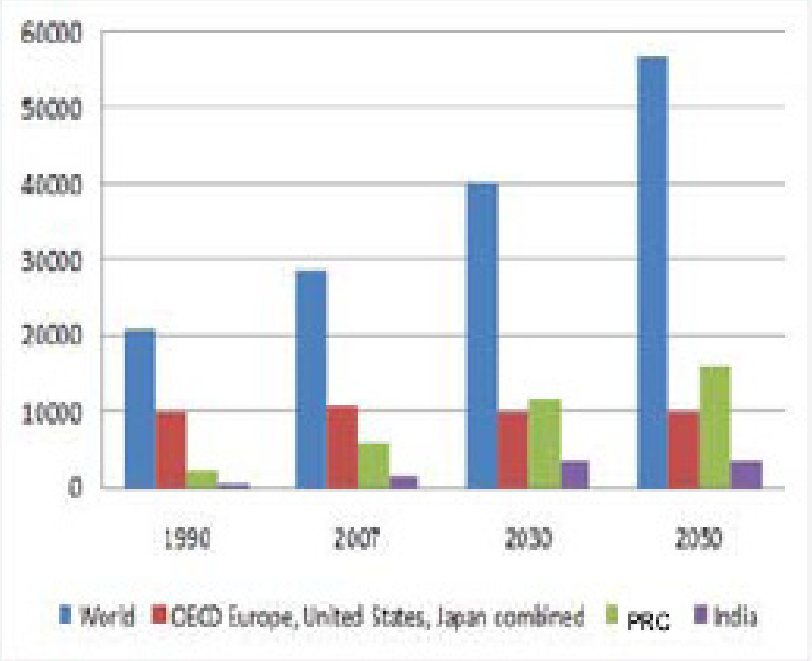
(2) Food – Fuel

Figure 1 **Asia will lead world energy demand**



Source: Author's calculations, 2011.

Figure 2 **PRC and India will experience a significant increase in energy-related carbon emissions**



Source: Author's calculations, 2011.

Common Challenges & Constraints

(2) Food – Fuel

	1980	1990	2000	2007	2030	2050
Asia Energy Demand (Mtoe)	1,625	2,220	2,910	4,242	7,960	11,480
PRC	603	872	1,105	1,970	3,637	5,011
India	207	318	457	622	1,341	2,389
ASEAN	149	243	389	513	903	1,177
Central Asia	95	198	128	159	256	385
Iran		46	120	185	373	565
High Income Asia	557	629	746	896	995	1,112
Asia Energy Supply Mix (%)						
Coal		40	42	47	48	50
Oil		16	17	20	21	20
Gas		9	10	11	12	11
Hydro		3	2	2	2	1
Biomass		26	24	15	10	7
Other (including nuclear)		6	5	5	7	11
Asia electricity consumption (TWh)		2,249	3,057	6,113	17,267	26,181
PRC	259	586	1,081	2,717	7,513	10,630
India	90	197	369	544	1,966	3,440
ASEAN	55	167	321	497	1,383	1,956
Central Asia	63	162	124	152	443	715
Iran	38	58	86	145	332	544
High Income Asia	831	976	1,012	1,128	1,411	1,746
Reference Energy Consumption (Mtoe)						
World	7,228	8,761	10,018	12,013	16,790	22,288
OECD	4,050	4,476	5,249	5,496	5,811	6,011
US	1,802	1,913	2,280	2,337	2,396	2,412
Non-OECD	3,003	4,087	4,507	6,187	10,529	16,277

Source: EIA (2010), IEA (2008), IEA (2009), IEA (2010a), IEA (2010b), World Bank (2010) and Author's estimates, 2011.

Common Challenges & Constraints

(3) Climate Change

Table 1 **Asian cities feature prominently in the list of cities most exposed to half metre sea-level rises**

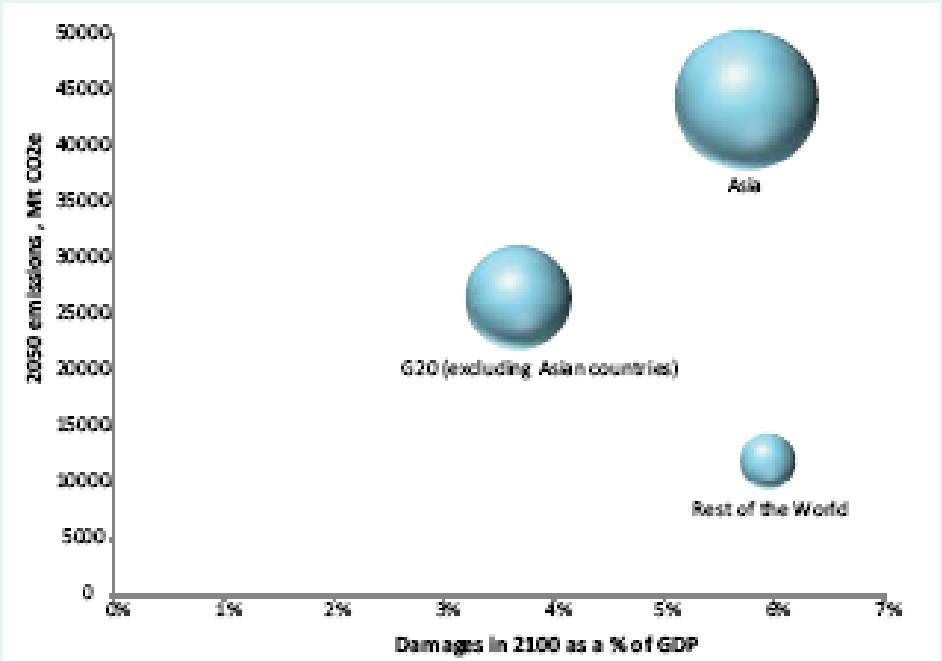
City	Exposed Population (2070) (000s)	City	Exposed assets (2070) ($bn, 2001)
Kolkata	14,014	Miami	3,513
Mumbai	11,418	Guangzhou	3,357
Dhaka	11,135	New York-Newark	2,147
Guangzhou	10,333	Kolkata	1,961
Ho Chi Minh City	9,216	Shanghai	1,771
Shanghai	5,451	Mumbai	1,698
Bangkok	5,138	Tianjin	1,231
Rangoon	4,965	Tokyo	1,207
Miami, USA	4,795	Hong Kong, China	1,163
Hai Phong	4,711	Bangkok	1,117
Alexandria, Egypt	4,375	Ningbo	1,073
Tianjin	3,790	New Orleans	1,013
Khulna	3,641	Osaka-Kobe	968
Ningbo	3,305	Amsterdam	843
Lagos, Nigeria	3,229	Rotterdam	825
Abidjan	3,110	Ho Chi Minh City	652
New York-Newark	2,931	Nagoya	623
Chittagong	2,866	Qingdao	602
Tokyo	2,521	Virginia Beach	582
Jakarta	2,248	Alexandria, Egypt	562

Source: Nicholls, R.J., Hanson, S., Herweijer, C., Patmore, N., Hallegatte, S., Jan Corfee-Morlot, Jean Chateau and Muir-Wood, R. 'Ranking of the World's Cities most Exposed to Coastal Flooding Now and in the Future, OECD Environment Working Paper No. 1, 2007.

Common Challenges & Constraints

(3) Climate Change

Figure 1 | **Asia has both the ability and incentives to address climate change**



Note: Sphere size proportional to current population.
Source: EMF Study by Vivid Economics based on RICE, 2010.

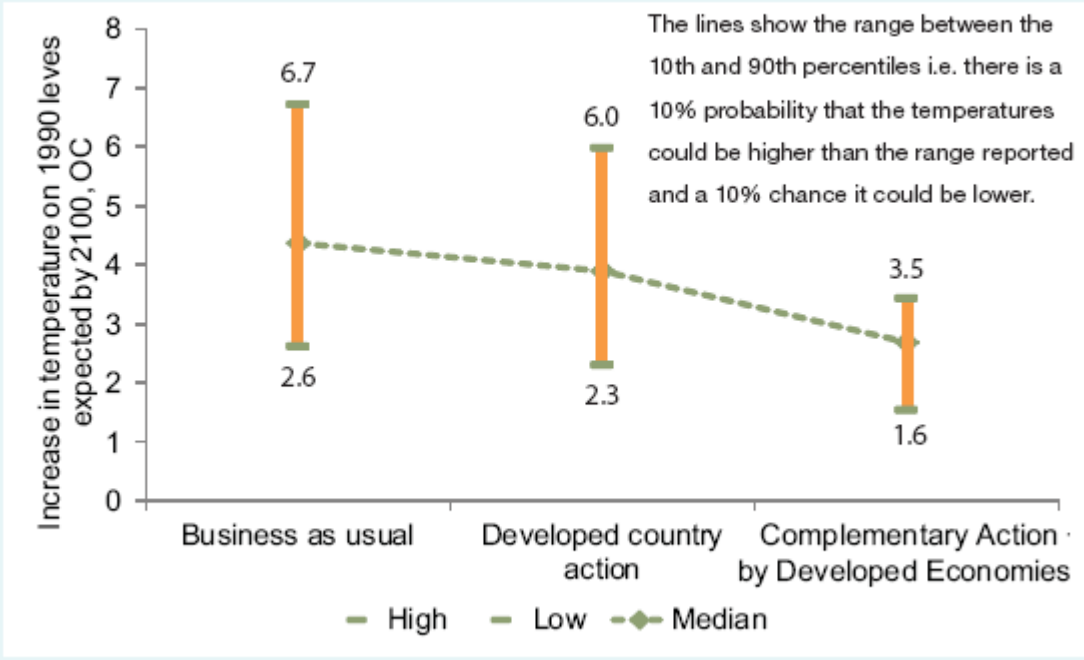
Agriculture is one of the most sensitive economic sectors affected by climate change, and is an important sector in most Asian countries.

Common Challenges & Constraints

(3) Climate Change

Only when the large Asian economies act together with the Annex1 (developed) countries (plus Brazil and Mexico) do they have the ability to have a meaningful impact on the outcome of the global climate.

Figure 4 | **Asia should move decisively on the global commons because that is in its self-interest**



Source: Vivid Economics and MAGICC, 2010.

Common Challenges & Constraints

(3) Climate Change

(1) Waiting to take action will only increase the costs

- If Developing Asian economies start **taking action in 2012** to bring emissions back to 2005 levels by 2050, then they would have to achieve annual reductions in emissions of **0.4 percent per annum.**
- If they **wait until 2030** before taking action, with the intention of reaching the same target by 2070, then average reductions of **1.5 percent** per **annum** might be required. It is clear that it is in the self-interest of Asia to act decisively to mitigate climate change, and to do so urgently.

(2) Therefore, it is in the self-interest of Asia to act decisively to mitigate climate change, and to do so urgently

Common Challenges & Constraints

(4) Entrepreneurship & Innovation

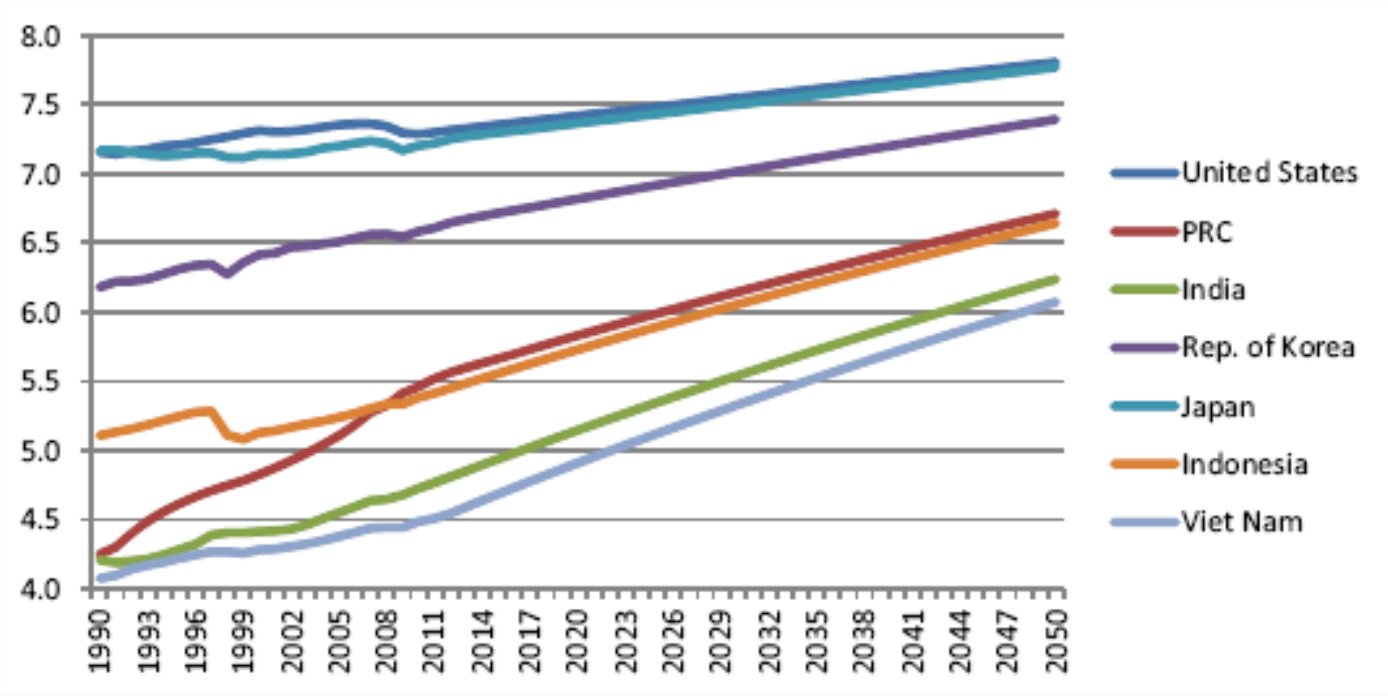
Catch-up entrepreneurship vs. frontier entrepreneurship

- **Catch-up entrepreneurship** engages in ***replicative activities***—activities invented by others and replicated at competitive costs. Its ***main economic contribution is job creation***.
- **Frontier entrepreneurship** is innovative and inventive, and creates breakthroughs in science and technology. Frontier entrepreneurship is an important mechanism to ***convert knowledge production into improvements for human welfare***.

Common Challenges & Constraints

(4) Entrepreneurship & Innovation

Figure 1 **Asian total factor productivity (1990-2050) is converging with best practice**

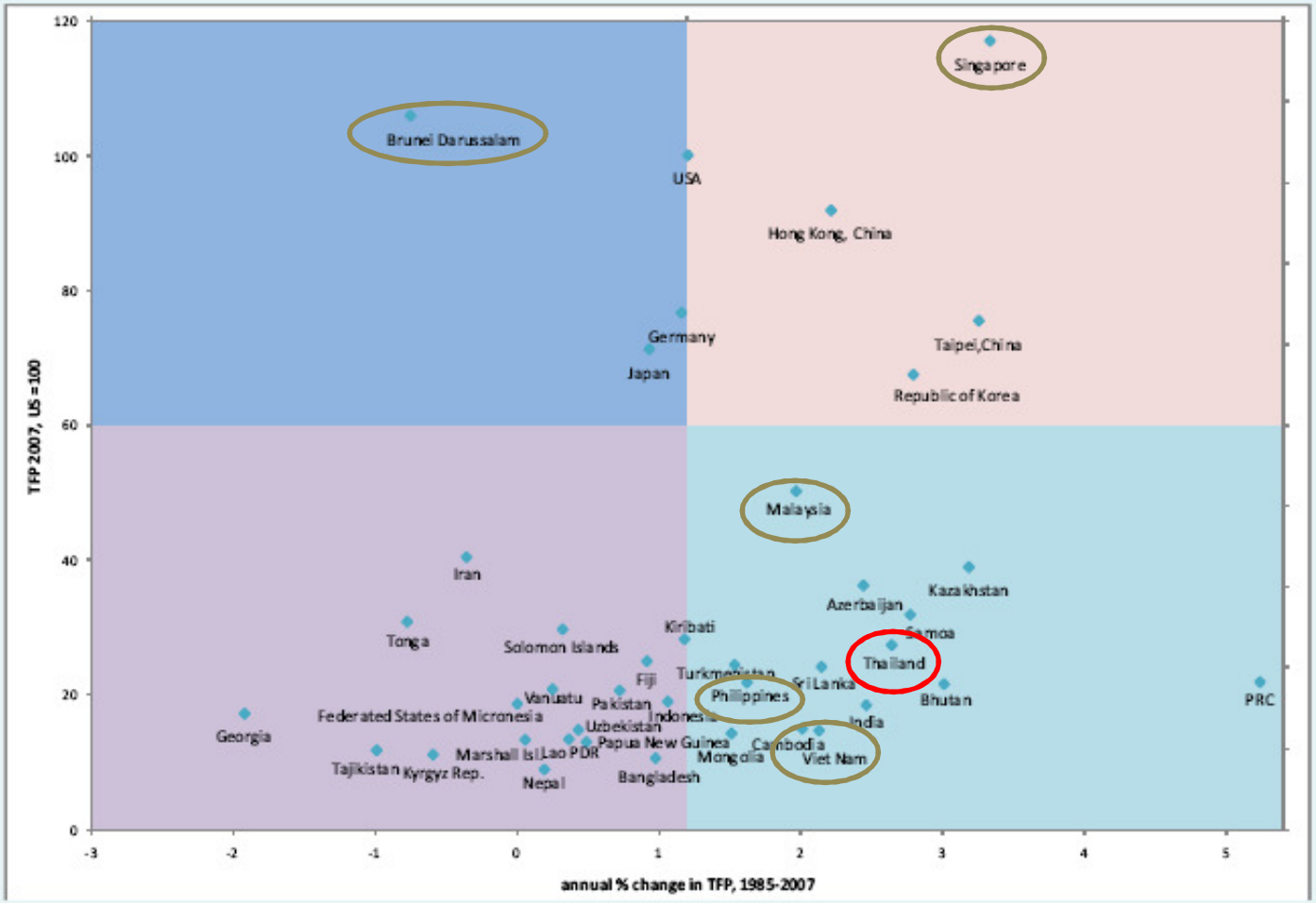


Source: Centennial Group projections, 2011.

Common Challenges & Constraints

(4) Entrepreneurship & Innovation

Figure 1 **Total factor productivity: levels and growth rate, 1985-2007**



Source: Centennial calculations, 2011.

Common Challenges & Constraints

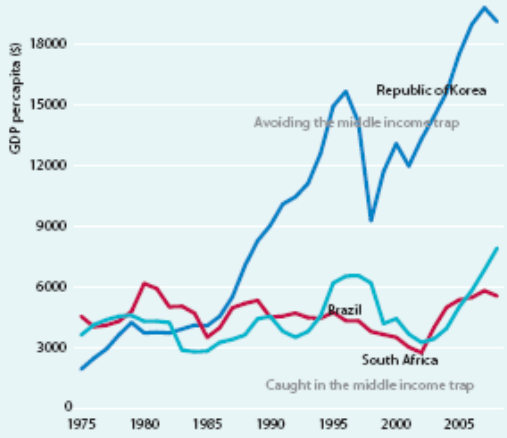
(4) Entrepreneurship & Innovation

The country cannot escape from the middle-income trap without innovation.

Box 2 | The Middle Income Trap: unable to compete

The Middle Income Trap refers to countries stagnating and not growing to advanced country levels. This is illustrated in the figure, which plots the per capita incomes of three middle income countries between 1975 and 2005. In a steadily growing economy, the per capita GDP would rise continuously over time, towards higher incomes. That is the experience of Republic of Korea. But many middle income countries do not follow this pattern. Instead, they have short periods of growth followed by periods of stagnation or even decline, or are stuck at low growth rates.

They are caught in the Middle Income Trap—unable to compete with low income, low wage economies in manufacturing exports and unable to compete with advanced economies in high skill innovations. Put another way, such countries cannot make a timely transition from resource-driven growth, with low cost labor and capital, to productivity-driven growth.



Source: IMF World Economic Outlook, October 2010.

Common Challenges & Constraints

(4) Entrepreneurship & Innovation

- Policy priority is **not high-tech development** but to **get the economic and business environment fundamentals right**.
- The **mistake** that policy makers in **Asia must avoid** is to create a policy and regulatory environment **to favor frontier entrepreneurship at the expense of catch-up entrepreneurship**.

Common Challenges & Constraints

(5) Institutional Constraints

Table 1 | **Analytic framework for governance and institutions**

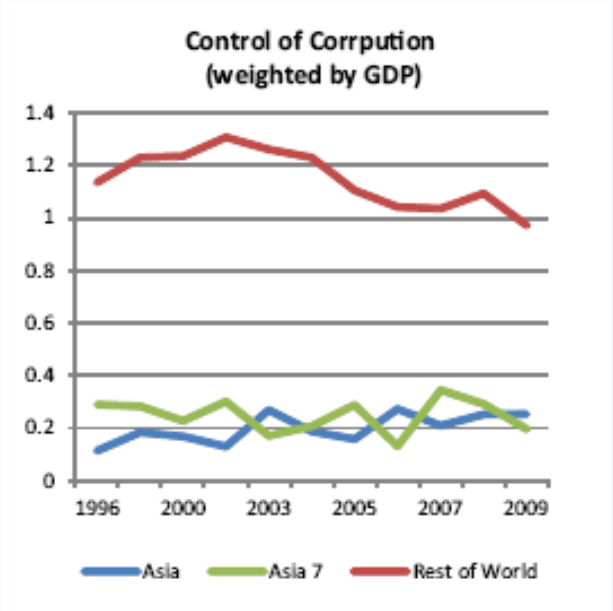
The Issue	Actors and instruments	Good principles	Bad principles
Who leads the Public sector?	Government through economic and social policies	• Growth-oriented • Inclusive • Sustainable development-oriented • Accountable	• Lack of clarity of direction • Exclusive • Rent-seeking oriented • Not accountable
How are policies applied?	Through a clear legal, institutional and regulatory framework and related agencies	• Rule-based • Equitable (law applies equally to everybody) • Accountable	• Ad-hoc • Selective, captured • Not accountable
How are policies implemented?	Through/by the civil service and other service providers	• Competent • Merit-based, Competitive • Efficient • Accountable	• Incompetent • Nepotism-based and/ or captured • Inefficient • Not accountable
How are resources allocated?	Through the budget process	• Transparent • Competitive • Accountable	• Non-transparent • Arbitrary and/ or interest-group oriented • Captured
How are public oversight functions carried out	Through multiple actors: • Parliament • Media • Civil society • NGOs	• Accountable • Demand for public accountability • Access to information	• Non-effective • Laden with conflict of interest • Captured
Are there redress mechanisms?	Through sundry appeals and conflict resolution systems (e.g. ombudsmen)	• Yes	• No

Common Challenges & Constraints

(5) Institutional Constraints

Although a daunting challenge, the eradication of corruption is critical for all countries in order to ensure necessary social and political stability and retain the legitimacy of governments.

Figures 5 & 6 **Governance indicators by subregion (weighted by GDP)**



Source: World Bank Worldwide Governance Indicators, 2010.

Common Challenges & Constraints

(5) Institutional Constraints

Table 4 | **Pressures for governance and institutional transformation—domestic**

	Developments	Priorities	Risks
Demographics	Northeast Asia is ageing, South and Southeast Asia are young	• Ageing countries should adjust institutions • Young countries should improve public services	• No precedent in Asia for adjusting institutions in response to ageing • Poor delivery of public services can lead to unrest
Urbanization	Urban population growth will be significant through 2050	• Governance and institutional reforms should account for the urban population growth • Decentralization policies	• Urban growth could lead to tensions between national and local governments • Urban-rural income gaps will likely grow further
Expanding Middle Class	Expanding middle class will lead to demands for higher quality of life	• Government must keep up with growing expectations and demands for governance and institutional reforms	• Could lead to demands for more voice • The distance between state and citizen will be affected

Common Challenges & Constraints

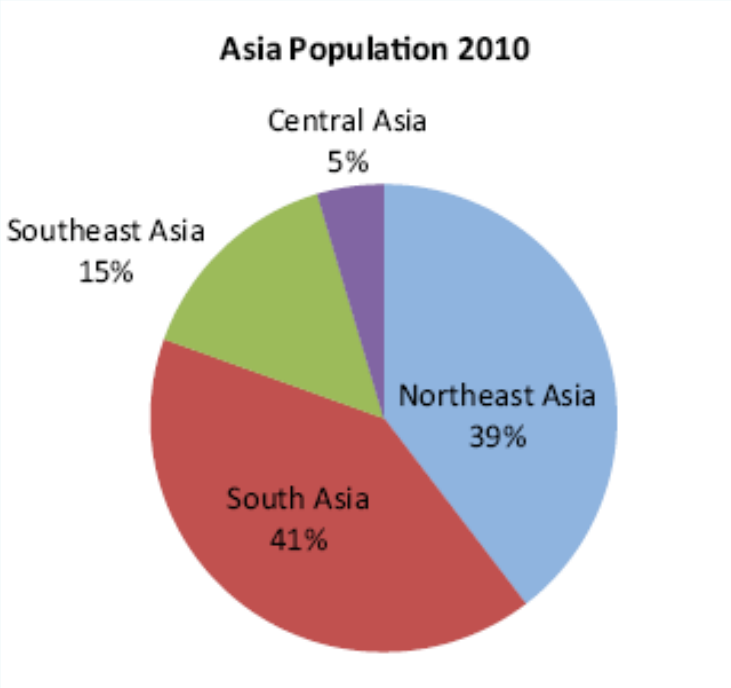
(5) Institutional Constraints

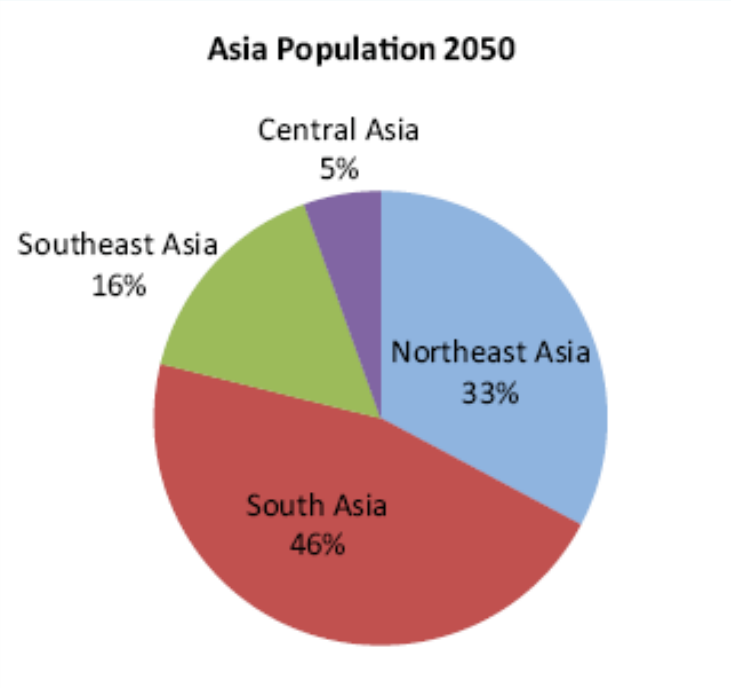
- **Corruptio**n cannot be left unchecked; else, eventually it will suffocate **the foundations of rule-of-law institutions**.
- Focus on building **strong transparent institutions**—they are what matters.
- Designing policies is only half the game, enforcing the rules, i.e. **implementation is what matters**.
- Devise **participatory approaches to policy making** and build accountability mechanisms.

Common Challenges & Constraints

(6) Demographical change

Figure A1 **Population changes in Asia's subregions, 2010 versus 2050**





Source: United Nations Statistics Division, 2010.

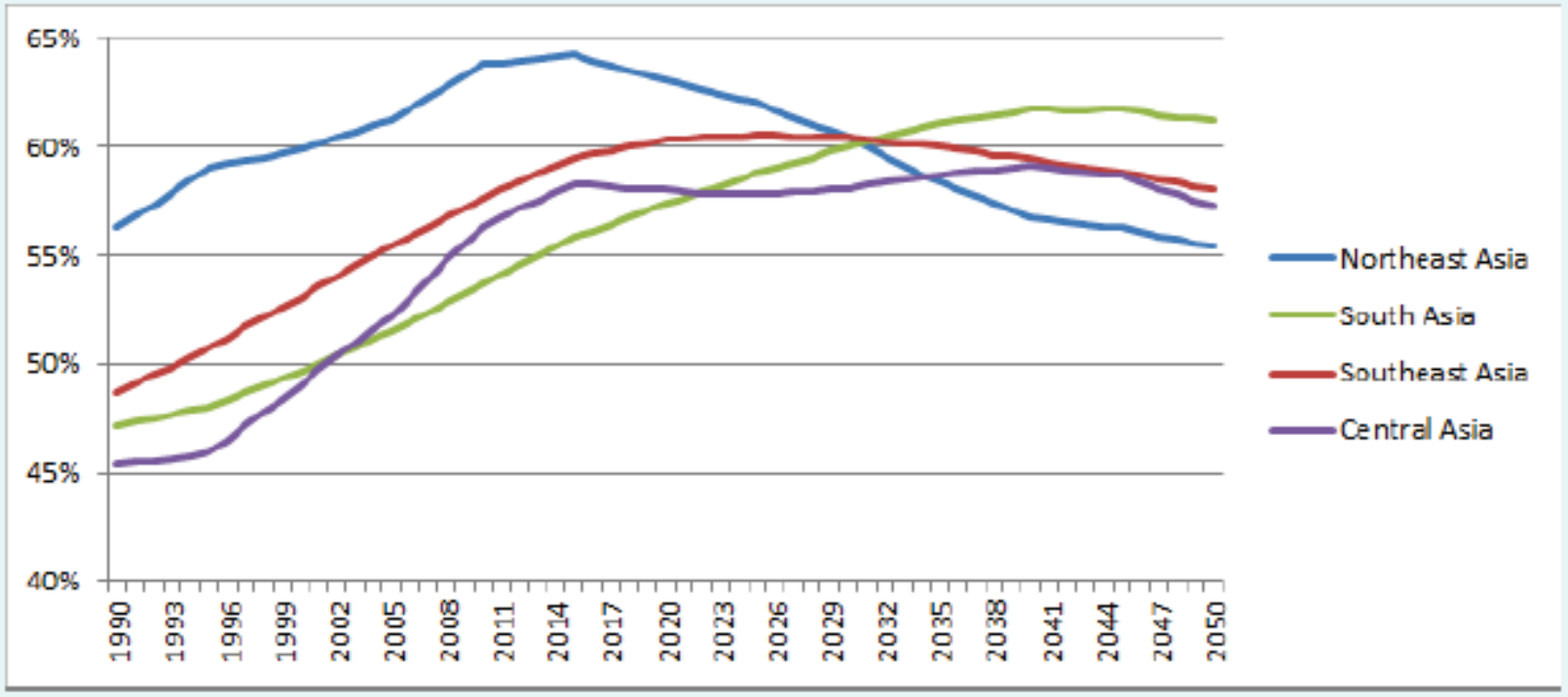
Common Challenges & Constraints

(6) Demographical change

By 2050, Japan's labor force could be smaller than today's by almost 30 million workers – a drop of one-third.

Note: Comparing across time and region, % of working-age population in Northeast Asia was all-time high during 1990 – 2010. Together with TFP, these factors drove the economies to reach their peaks during 1990s – 2000s

Figure 2 **Working age population (20-64) will begin to decline in all Asian subregions (1990-2050)**



Source: UN World Population Prospects 2008 Revision.

Common Challenges & Constraints

(6) Demographical change

Table A1 | **Population changes in Asia, 2010-2050**

Population (millions)	2010	Projected 2050	Change in Population (millions)	% Change
Asia	3958	4888	930	23.5
Japan	127	102	-25	-20.0
Republic of Korea	49	44	-4	-9.1
PRC	1354	1417	63	4.6
Indonesia	233	288	56	23.9
Viet Nam	89	112	23	25.4
India	1215	1614	399	32.9
Pakistan	185	335	150	81.4
Afghanistan	29	74	45	155.1

Source: UN Statistics Division, 2010.

Common Challenges & Constraints

(6) Demographical change

What is especially striking about this phenomenon is the relative speed of the process of ageing in Asia, and the fact that the 'greying' of Asia is occurring at all levels of the economic spectrum, i.e. even in low-income countries.

Table A4 | **Ageing versus economic growth in Asia, 2050**

	pc GDP (PPP) 2050	% 65+ 2050		pc GDP (PPP) 2050	% 65+ 2050
Nepal	3,400	10.6%	Iran	22,800	19.7%
Afghanistan	2,800	3.6%	Cambodia	22,700	10.4%
Bangladesh	14,200	14.9%	Viet Nam	33,600	20.0%
Myanmar	4,900	17.5%	Armenia	35,900	21.5%
Tajikistan	15,900	10.0%	India	41,700	13.7%
Lao PDR	7,800	9.5%	Bhutan	48,600	15.0%
Pakistan	7,900	10.0%	Indonesia	37,400	18.6%
Philippines	22,900	12.7%	PRC	47,800	23.3%
Sri Lanka	34,700	21.4%	Azerbaijan	60,300	17.9%
Mongolia	26,900	16.8%	Kazakhstan	64,700	15.6%

Source: Centennial Group International Growth Model, 2011.

Common Challenges & Constraints

(6) Demographical change

Table A2 | **Projected growth of Asia's elderly population (number of people, age 65 and above, in millions)**

	2010	2020	2030	2040	2050	% increase 2010-2050
Central Asia	9	12	19	25	36	309
Northeast Asia	149	214	286	377	392	163
South Asia	77	111	161	221	299	290
Southeast Asia	34	49	76	106	132	283
TOTAL	269	385	541	729	859	

Source: UN Statistics Division, 2010.

Inflection years	Total population		Working Age Population
Speed 1: Old Asia		**Speed 1: Old Asia**	
Japan	2005	Japan	1995
Republic of Korea	2024	Republic of Korea	2015
PRC	2032	PRC	2020
Speed 2: Young Asia		**Speed 2: Young Asia**	
Thailand	2039	Indonesia	2030
Indonesia	Post 2050	Thailand	2040
Viet Nam	Post 2050	India	2040
Bangladesh	Post 2050	Viet Nam	2040
India	Post 2050	Bangladesh	2045
Speed 3: Very Young Asia		**Speed 3: Very Young Asia**	
Pakistan	Post 2050	Pakistan	Post 2050
Afghanistan	Post 2050	Afghanistan	Post 2050

Common Challenges & Constraints

(6) Demographical change

Besides the unfavorable fact about the shirking labor force, the number of middle class will increase, enlarging the total consumption expenditure

Table 2 **The Asian middle class will grow sharply over the next 40 years**

	2030			2050		
	Middle Class Population	Upper Class Population	GDP per capita (PPP)	Middle Class Population	Upper Class Population	GDP per capita (PPP)
PRC	1,120	40	21,100	1,240	190	47,800
India	1,190	15	13,200	1,400	210	41,700
Indonesia	220	5	13,500	250	40	37,400
Japan	100	20	48,900	60	40	66,700
Republic of Korea	30	20	60,200	10	35	107,600
Viet Nam	80	2	11,900	100	15	33,800
World	4,990	580	19,400	5,900	1,500	36,600
US	185	190	65,500	120	290	98,600
Germany	50	30	51,300	25	50	77,800

Source: Centennial Group projections, 2011.

Common Challenges & Constraints

(6) Demographical change

The valid concern is that a rapidly ageing population is antithetical to achieving high-income status. The fear that a country might become too old before it becomes rich enough has two elements:

(i) with high old age-dependency ratios, investments to achieve higher factor productivity are difficult to realize

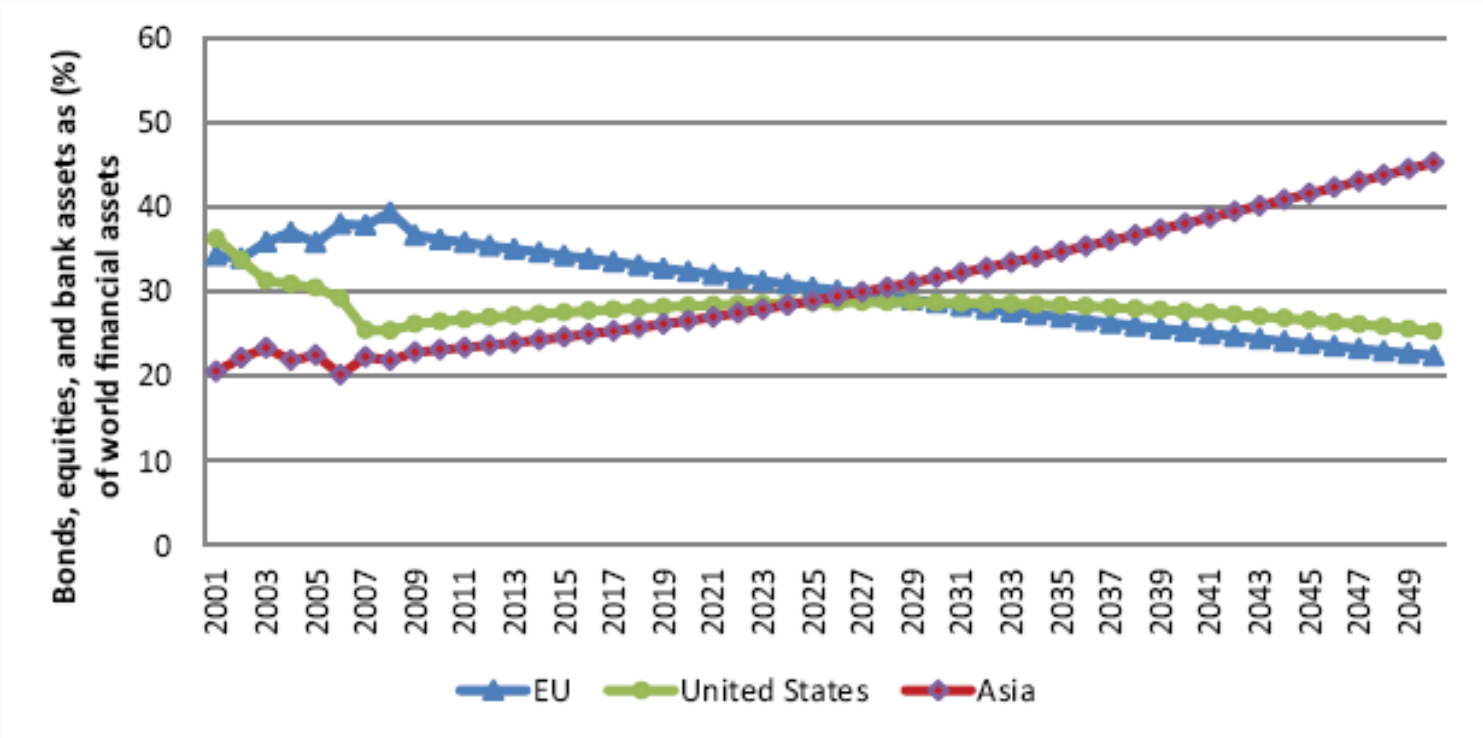
(ii) meeting the needs of an elderly population will entail costly economic and social institutions that are needed to achieve income security, adequate health care, and other needs.

Financial Transformation

- The conventional wisdom of current economic and finance theory is based on assumptions of **rational expectations and efficient markets**. ("Free market knows the best")
- The belief in unfettered finance and free markets allowed global finance to expand exponentially since the 1990s.
- However, financial regulation and **risk management of derivatives were seriously flawed** with its **systemic risks underwritten by the public sector**.
- The world is **re-examining conventional wisdom and finance theory**.

Financial Transformation

Figure 1 **Asia's global share of bonds, equities, and bank assets will rise**

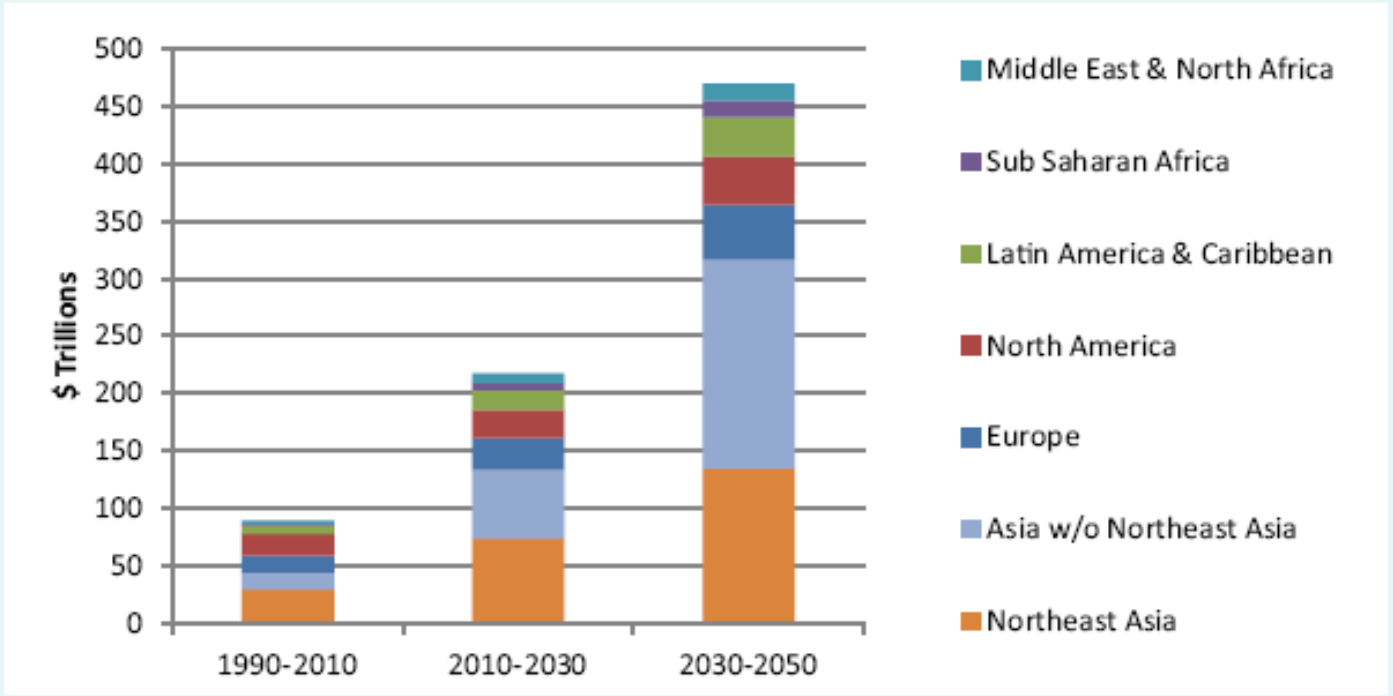


Source: Authors' projections, 2011.

Financial Transformation

Financial sector should not grow at the expenses of the real sector. Instead, it must complement and support the real sector activities.

Figure 3 | **Asia will account for 70 percent of the world's added capital stock between 2030 and 2050**



Source: Centennial Group projections, 2011.

Financial Transformation

Global Imbalance

Great Recession was the flawed international financial architecture, centering on the dominant role of a single global reserve currency

French President proposed 4 options in G-20 meeting:
(1) Status quo
(2) A single dominant Asian currency that contends for the dominant position in Global Reserve Currency System
(3) Establish Asian Monetary System and then join Global Reserve Currency System
(4) A direct or phased migration from status quo to a new Global Reserve Currency System

Focusing on Serving the Real Sector

(1) Efficiently meet the resource allocation needs of the real sector, especially micro business, SME and municipal development
(2) Improve the price discovery process and trading so that liquidity and transparent markets are maintained
(3) Improve risk management to the new environment
(4) Protect long-term risk-adjusted real returns to pension and social security needs

Investment Banking

Speculative trading initially has a social value of providing liquidity and price discovery.

(1) Separation of commercial banking from investment banking.
(2) No implicit and explicit guarantees that create moral hazard.

Insurance

Asia is grossly underinsured. Gross insurance premiums accounted for 6 % of GDP in Asia compared with 7.3 % in America and 7.5 % in Europe.

Develop knowledge-based skills for the insurance industry, particularly its risk-management and actuarial expertise.

Asset Management

(1) In 2008, total retirement assets of US households reached $13.9 trillion, roughly 100 percent of GDP. Total global pension fund assets were $21.6 trillion.
(2) An increasing number of High Net Worth Individuals (HNWI). Despite this fact, Asia has yet to fully invest in Asia

Develop a strong asset management and pension fund industry, by (1) liberalizing the portfolio restrictions (2) allowing more investment alternatives both domestic and international ones.

Regional Cooperation

(1) Intra-regional trade in East Asia is now close to 56 % yet intra-regional financial service trade is still constrained by regulatory and institutional barriers. I
(2) Individually, smaller Asian financial systems lack the critical mass of research, experience and skill levels to

(1) Institutionalization of Asian regional cooperation and the financial safety nets by expanding the multi-lateralized Chiang Mai Initiative as a financial safety net that can co-exist with EFSF and the IMF.
(2) Use AMRO as the think-tank for the new institute.

Regional Integration

Main Objectives

(1) To have the voice and influence in the global agenda that is commensurate with its economic weight.

(2) To sustain region-wide economic growth. This will require the creation of a single market—at least for goods, services and finance, to permit the Asia-wide free flow of trade and investments.

(3) To reduce cross-country disparities in income and opportunities

(4) there are many areas that can yield significant synergies and positive spillovers, such as technological development, energy security, disaster preparedness, etc.

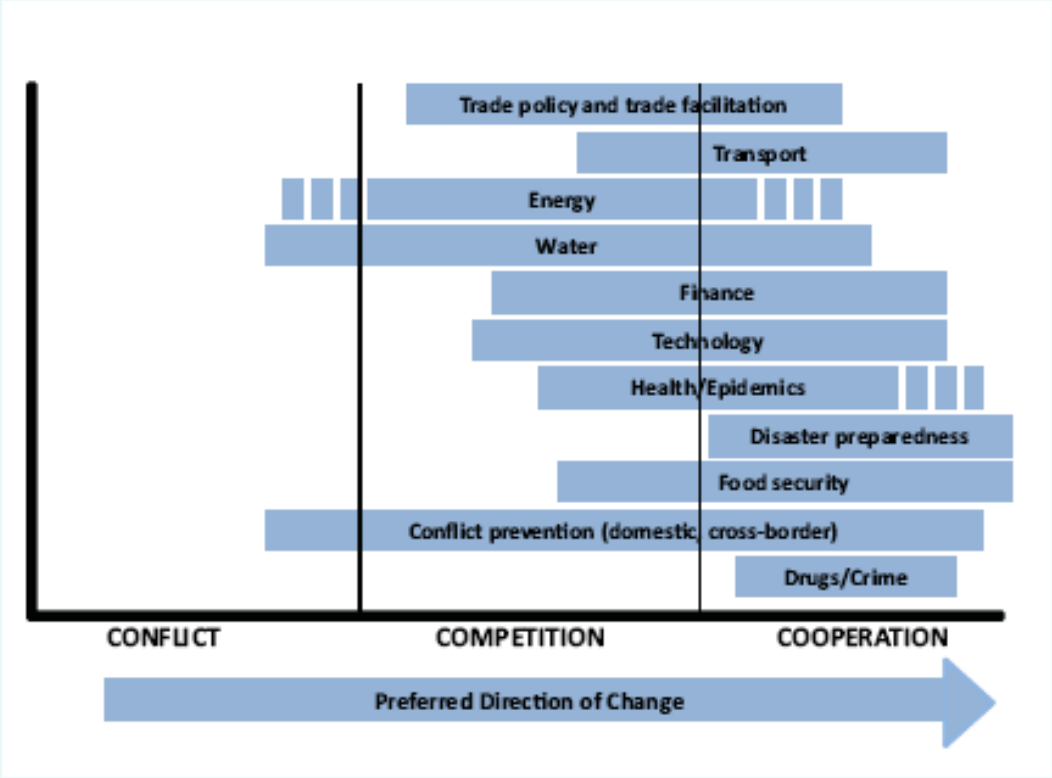
Regional Integration

The management of the regional commons involve:

- Diffusing and **mitigating** internal political and social risks associated with **drugs, religious fundamentalism and terrorism**.
- **Avoiding conflicts** between the **mega-economies or nuclear states**.
- Maintaining **social and political stability** in the region, especially to support the economic and security concerns of fragile states.

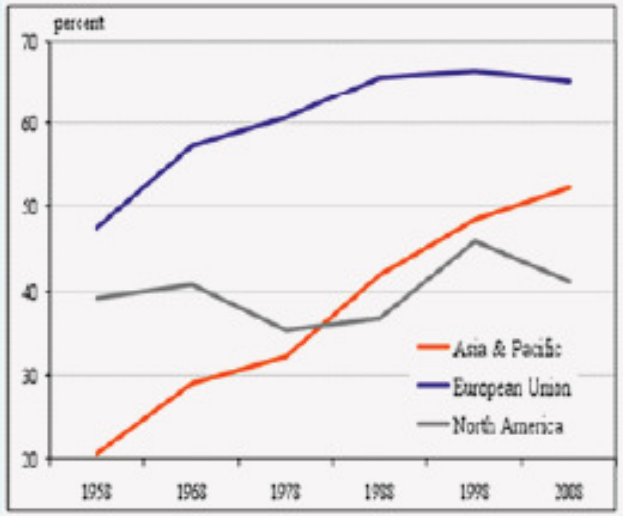
Regional Integration

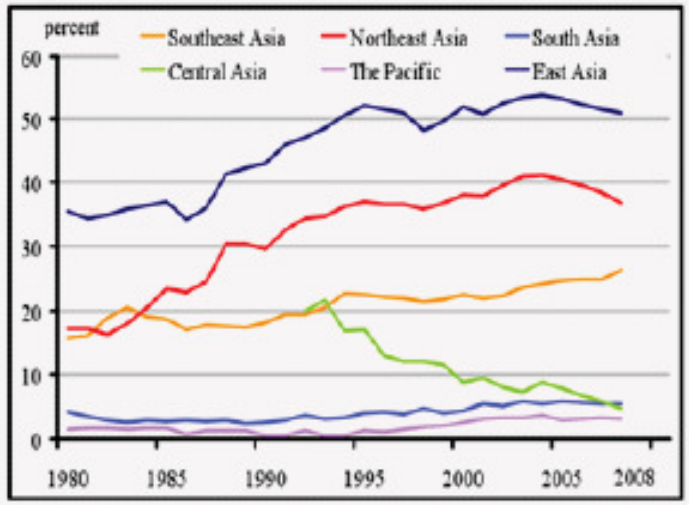
Figure 1 **From conflict to cooperation**



Regional Integration

Figure 2 **Asia has experienced an increase in share of intra-regional trade**

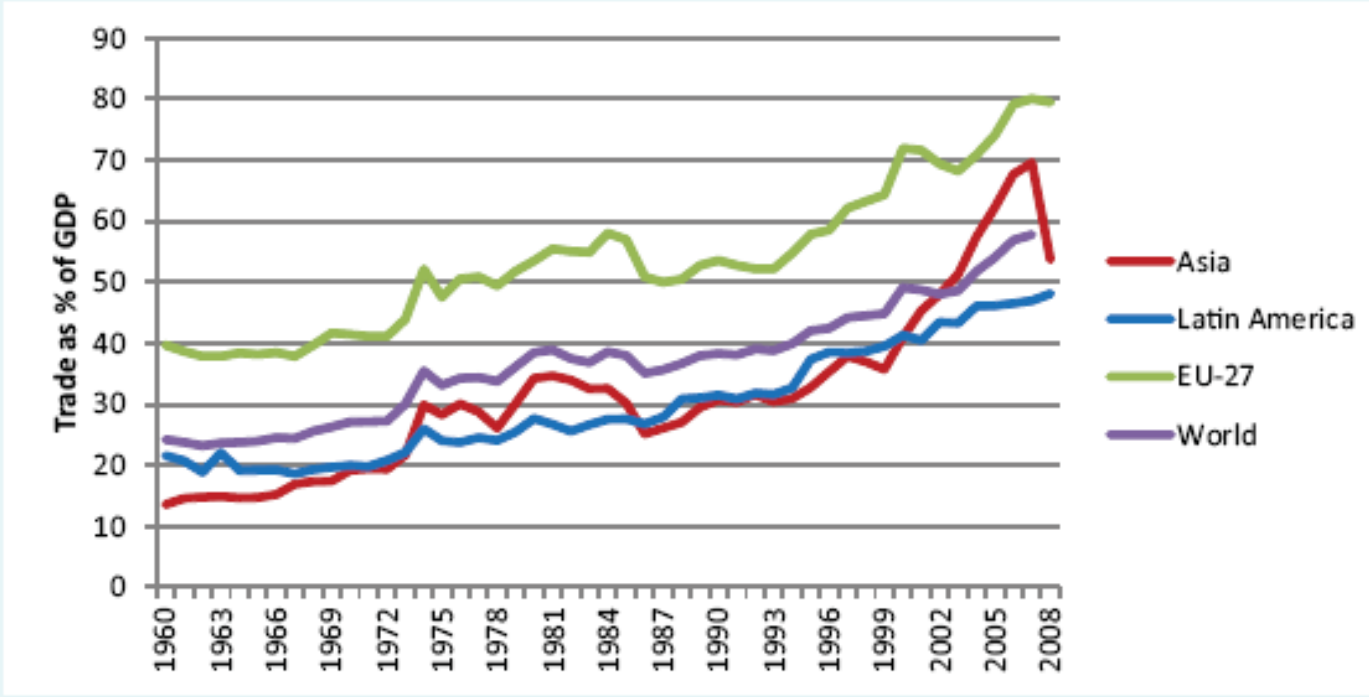




Source: World Bank World Development Indicators, 2011.
Note: Figures refer to total trade (exports plus imports). The intra-regional trade share of region i is defined as IT sharei = (Xii+Mii)/(Xi+Mi), where Xii = exports of region i to region i; Mii = imports of region i from region i; Xi=total exports of region i; and Mi = total imports of region i

Regional Integration

Figure 4 **Trade is increasing in relevance**



Source: IMF Direction of Trade, 2011.

Regional Integration

1) It helps to keep **the number of members** in the regional organization **manageable**. Membership is best based on shared geography and common regional interests.
2) **Adequate funding** mechanisms for regional investments are **essential.**
3) External assistance can be helpful in setting up and sustaining **subregional institutions**, as in the case of the Greater Mekong Subregion Program (**GMS**) and the Central Asia Regional Economic Cooperation Program (**CAREC**).
4) "Open regionalism" (i.e., the creation of institutions that are open to extra-regional participation and do not discriminate against non-regional economies in the long-term), is the most successful strategy.
5) Regional economic cooperation organizations that **involve ministries of finance or economy** tend to be **more effective than** those that rely on the leadership of **ministries of foreign affairs.**
6) The **engagement** of the **business** community **and civil society** strengthens the mechanisms for regional cooperation

Regional Integration

Figure 1 **Strategic framework**

Box 4 **ADB proposals for new regional institutions**

Key proposals put forward by ADB in its recent study on Asian regional institutions include:

- Establishing an Asian Financial Stability Dialogue.
- Setting up an Asian Monetary Fund (AMF) to conduct regional macroeconomic surveillance and provide financial support during crisis.
- Creating an Asian Infrastructure Fund.
- Broadening the Asia Bond Markets Initiative to an Asian Capital Markets Initiative.
- Setting a cooperative framework for dealing with capital flows and regional exchange rates.
- Working toward a region-wide FTA and multilateralizing regionalism in the WTO context.
- Setting up an Pan-Asian Infrastructure Forum