

Research Outcomes

Summary of Research Projects 2012



Asia-Pacific
Economic Cooperation



POLICY SUPPORT UNIT

Research Outcomes

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Trade & Investment Liberalization & Facilitation

APEC's Bogor Goals Progress Report

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Full Report: 97 pages

Since 1994, the Bogor Declaration has provided guidance on how to achieve economic cooperation and growth within APEC by adopting “the long-term goal of free and open trade and investment in the Asia-Pacific”, which is commonly known as the Bogor Goals. Through the years, the Bogor Goals has remained as the inspirational strength behind APEC’s agenda.

In 1995, the Osaka Action Agenda was developed to set out individual and collective action guidelines in 15 areas towards achieving the Goals. Subsequently in 2005, a mid-term stock-take was carried out to analyze APEC’s performance and identify challenges that hinder the progress towards achieving these goals. In 2010, an assessment of APEC’s progress towards the Bogor Goals showed that substantial progress had been made by APEC industrialized and developing economies, but more work needed to be done en-route to 2020.

In 2011, as part of the process to track progress of APEC member economies in the relevant areas concerning the Bogor Goals, APEC Senior Officials tasked the Policy Support Unit (PSU) to prepare short reports highlighting the achievements and remaining areas for improvement. This led to the preparation of 22 progress reports in 2012 – one for APEC as a whole, and one each for the 21 APEC member economies.

The Bogor Goals Progress Reports used mostly qualitative information to describe the main achievements and shortcomings of APEC member economies, in the areas listed under the 1995 Osaka Action Plan and new areas that have acquired relevance in recent years due to the changing trade policy environment. The main input in the preparation of these reports was the information directly submitted by APEC member economies through their Individual Action Plans (IAP). In cases of information gaps, PSU

referred to other credible public sources such as WTO Trade Policy Reviews to complete these reports.

Findings

In general, the analysis of the information shows that APEC member economies are moving in the right direction. Nevertheless, there is room for improvement as more work can be done. Efforts in trade liberalization have been significant, but uneven across sectors and non-tariff measures still remain. Trade facilitation, services and investment are becoming more relevant areas in the pursuit to improve business conditions.

The progress of APEC as a whole is presented here. For the progress of each APEC member economy, please refer to the full report.

APEC: Highlights of achievements and areas for improvement

- Tariffs are continuing their downward trend. In 2010, APEC’s MFN average tariff was equal to 5.8%. However, average tariffs in agriculture remained higher in comparison with other sectors (11.9% to 4.9%).
- APEC economies have reported progress in the elimination or reduction of certain non-tariff measures. However, some restrictions still remain and new measures restricting or potentially restricting trade continue to be implemented.
- Progress in services liberalization and facilitation; nevertheless there is still room for improvement as some restrictions in terms of market access, national treatment and local presence are maintained.
- APEC economies are making efforts to improve investment conditions and welcome foreign investors. However, sectoral restrictions to foreign investment are common in areas considered of domestic strategic interest.

- Efforts to align to international standards; some concerns exist regarding the conditions to meet certain sanitary and phytosanitary requirements and technical regulations.
- Substantial progress to facilitate trade by making customs procedures more efficient.
- Efforts to strengthen intellectual property rights and competition policy systems; there is progress in enforcement but more can still be done to improve conditions.
- Increased transparency and market access in government procurement; however concerns remain especially in terms of preferences to local suppliers and restrictions on the origin of the goods/ services.
- Trend continues for regulatory reforms to increase efficiency.
- Higher levels of transparency across time; more relevant information concerning laws, regulations, guidelines and administrative procedures are becoming easily available.
- Network of RTA/FTAs is expanding for all APEC economies.

APEC’s Bogor Goals Dashboard

Publication Number: APEC#212-SE-01.13 • Published Date: September 2012
Full Report: 31 pages

The purpose of the Dashboard is to provide easy-to-understand figures to track the advances in areas critical to promoting greater regional economic integration, such as liberalization and facilitation of trade and investment. The intention is to display a set of harmonized indicators laying out the evolution across time of certain aspects of trade and investment liberalization and facilitation in quantitative terms.

The Policy Support Unit (PSU) prepared a total of 22 Dashboards - one for APEC as a whole, and one each for the 21 APEC member economies. These complement the assessment of APEC member economies and the APEC region towards the Bogor Goals via the Bogor Goals Progress Reports that were prepared with submissions from each APEC member economy and which comprised mostly qualitative information.

The Dashboards include quantitative indicators that were gathered from respectable public sources only and data for the period 2008-2010. They encompass issues pertaining to goods trade, services and investments. The list of indicators included in the Dashboard is as follows:

Goods Trade

1. MFN Applied Tariff (HS 6-digit level simple average)
2. MFN Applied Tariff - Agriculture (HS 6-digit level simple average)

3. MFN Applied Tariff - Non-Agriculture (HS 6-digit level simple average)
4. Zero - Tariff Product Lines (%)
5. Zero - Tariff Imports (%)
6. Percentage of Product Lines with MFN Tariff Rates >= 10%
7. Non-Ad Valorem Product Lines (%)
8. Non-Ad Valorem Imports (%)
9. Logistics Performance Index - Overall Index (1= low, 5 = high)
10. Lead Time to Export (days)
11. Lead Time to Import (days)
12. Cost to Export (USD per container)
13. Cost to Import (USD per container)
14. Documents to Export (number)
15. Documents to Import (number)

Services

16. Services Sectors with GATS Commitments
17. Deepest Level of RTA/FTA Services Commitments Achieved (0 = no commitments, 100 = full commitments in all sectors)
18. Number of RTA/FTAs with Sectoral Services Commitments / Total Number of RTA/FTAs

Investment

- 19. Prevalence of Foreign Ownership (1 = very rare, 7 = highly prevalent)
- 20. Business Rules Impact on FDI (1 = lowest, 7 = highest positive impact)

These indicators were selected taking into consideration their suitability and objectivity. Please refer to the full report for the APEC Dashboard and those for each APEC member economy. For more comprehensive details, readers are advised to read the Dashboard’s technical notes.

Findings

The Dashboard indicates that the APEC region has made good progress in terms of trade liberalization. For example, during the period 2008-2010, average

tariffs went down from 6.6% to 5.8%, and the percentage of product lines with tariff rates above 15% fell from 16% to 14.7%. Moreover, the share of zero-tariff product lines went up from 42.4% to 45.2%. Similarly, in trade facilitation, APEC has continued to improve its performance by making it easier and faster to export and import.

In services, there are a greater proportion of preferential trade agreements with services commitments. There is also some evidence of an increase in the depth of services commitments in preferential trade agreements between 2008 and 2010.

In terms of the investment indicators, there has increasingly been a greater perception by experts on the prevalence in the APEC region of foreign ownership in companies as well as rules governing FDI that encourage the arrival of foreign investors.

IFAP Implementation in Facilitating Investment for the Asia Pacific Region

Publication Number: APEC#213-SE-01.5 • Published Date: April 2013
Full Report: 81 pages

Since its endorsement in 2008, the Investment Facilitation Action Plan (IFAP) has been a highly valuable and well-received component of APEC’s trade and investment agenda and an integral planning tool for many activities of the Investment Experts Group (IEG). In 2011, the IEG agreed to review IFAP implementation progress. It then requested the Policy Support Unit (PSU) to assist in preparing an analysis of the progress that APEC has made in implementing the agreed-upon IFAP principles and a review of APEC completed projects that are related to IFAP. The analysis will also include the pattern and trends

of foreign investment (mainly FDI), focusing on inter-regional and intra-regional FDI flows and the sectoral composition of FDI flows.

Findings

The results show that reporting economies have made substantial progress towards implementing several IFAP principles while progress on others has been less fruitful. Some of the findings based on the voluntary submissions from member economies are as follows:

IFAP Principles	Findings
Principle 1: Promote accessibility and transparency in the formulation and administration of investment-related policies	Most of the reporting economies have in place a Foreign Investment Promotion Act which sets out the laws and regulations pertaining to foreign investment in their economies. The laws, rules, regulations and/or amendments relating to foreign investment are usually published in an Official Gazette, and/or on the relevant government agency’s website. Most economies also have a trade and investment agency to help promote and facilitate foreign investment.

IFAP Principles	Findings
Principle 2: Enhance stability of investment environments, security of property and protection of investments	Most economies have a system of land ownership registration in place. Economies also generally have established effective formal mechanisms for resolving disputes between investors and host authorities and for enforcing solutions.
Principle 3: Enhance predictability and consistency in investment-related policies	The investment promotion agencies of most reporting economies implement actions related to principle 3. Most economies accord 'national treatment' to foreign investment, an important component of IFAP and international best practice.
Principle 4: Improve the efficiency and effectiveness of investment procedures	Economies have reported efforts to streamline foreign investment applications and registration, licensing, and taxation procedures for foreign businesses.
Principle 5: Build constructive stakeholder relationships	Most reporting economies have taken steps towards building constructive stakeholder relationships both as a means of direct policy action and to further integrate relations between the public and private sectors.
Principle 6: Utilize new technology to improve investment environments	The adoption of new technology has improved the investment climate in all economies who reported progress towards principle 6. New processes have also been implemented which greatly simplify international direct investment.
Principle 7: Establish monitoring and review mechanisms for investment policies	Reporting member economies showed a commitment to maintaining up-to-date investment policies through continuous monitoring.
Principle 8: Enhance international cooperation	Economies volunteering IFAP submissions reported extensive international cooperation.

Looking at the content of the IFAP principles, principle 1, 2, 3 and 4 contain key elements that any investors would see as critical factors when making their investment decisions. Principle 5, 7 and 8 are also important for new or existing investors as well as for governments to make sure that the current investment policies and regulations are well suited to attract and maintain new as well as existing FDI flows and activities. Principle 6 is particularly important to further reduce business and regulation costs as well as to encourage business to invest in new technologies.

In terms of FDI flows, USD 4.7 trillion of foreign direct investment flowed into APEC economies during the last decade, equivalent to an average of USD 179 per person per year for each APEC citizen. However, only 40% of these funds were intra-APEC investments. Fifty-nine percent of that USD 4.7 trillion flowed into industrialized economies, confirming the idea that firms invest where they can minimize cost and risk, validating IFAP's premise that simply improving the

investment climate is not sufficient for attracting FDI and highlighting the importance of economy-wide competitiveness.

Intra-APEC FDI into developing economies showed a counter-cyclical trend as these economies maintained their regional support when firms from other areas showed interest, providing evidence of strong regional connections. The PSU's analysis also showed positive correlations between per capita GDP and FDI, further demonstrating the importance of economy-wide improvements to better attract foreign funding.

Recent trends show that APEC firms are keen to invest within the region; over 5,000 intra-regional projects have been announced since the beginning of 2010. Many of these new projects are in the services sector, surpassing manufacturing as the most common industry for international investors, with most citing the region's growing market size as their primary motivation to invest.

A Snapshot of Current Trade Trends in Environmental Goods and Services

Series: Policy Brief No. 3 • Publication Number: APEC#212-SE-05.4

Published Date: April 2012 • Full Report: 6 pages

To address the current environmental challenges, APEC Leaders in November 2011 instructed officials to develop an APEC list of environmental goods. It was envisioned that the list would contribute to APEC's efforts towards green growth and sustainable development, and more specifically, to reduce applied tariffs on environmental goods to 5% or less by 2015, and eliminate non-tariff measures that distort the trade of environmental goods and services (EGS).

This policy brief is an initial effort to estimate the magnitude of EGS trade, identify current trends, and examine the relevance of EGS in APEC. Due to the difficulties associated with measuring EGS, this brief takes as a starting point, previous studies that have attempted to calculate the amount of EGS trade as well as documents and proposals that have suggested a list of environmental goods.

Findings

The findings show clearly the growing importance of EGS trade within the APEC region as well as around the world. In this context, policymakers in the region should make it a priority to discuss ways to reduce barriers to EGS trade and promote greater trade liberalization in this fast growing sector. Based on earlier proposals on establishing a list of environmental or climate-friendly goods, world trade on environmental goods was estimated to range from between USD 224.4 billion and USD 871.5 billion for year 2010.

A comprehensive look at the data shows that EGS trade is important not only for APEC industrialized economies, but also for APEC developing economies. The increased participation of APEC developing members in this industry is one of the reasons behind the growth of APEC's environmental goods trade.

Some of the drivers for this upward trend in trade include:

- Emerging economies moving into the production of higher value-added goods.
- Greater participation of emerging economies in the global supply chain of EGS.
- The need to use resources more efficiently, which involves the application of environmentally friendly "green" technologies with lower carbon footprint.
- Sustained high oil prices create an incentive to develop alternative sources of energy such as renewable energy as well as to use energy-efficient products. Elevated oil prices make the sourcing of renewable energy more commercially viable. In fact, the category of products related to renewable energy plants experienced the highest trade volume among the environmental goods categories.
- Increasing public awareness on prevention, control and protection of the environment. Government regulations on environmental matters in both industrialized and developing economies are creating new markets for EGS.

Recommendations

The EGS is a potentially huge market for the APEC region. Given the growing importance of this market, removing trade and investment barriers in the EGS sector would be beneficial to both industrialized and developing APEC member economies. Trade and investment liberalization and facilitation initiatives in this sector will allow producers to expand their markets, which will in turn, provide consumers with cheaper access to EGS and contribute towards building a more sustainable environment over the long term.

The APEC List of Environmental Goods

Series: Policy Brief No. 5 • Publication Number: APEC#212-SE-05.6

Published Date: November 2012 • Full Report: 6 pages

In November 2011, APEC Leaders set an ambitious target - to develop a list of environmental goods (EG) which contribute to green growth and sustainable development, and to reduce applied tariffs on these goods to 5% or less by 2015. Less than a year later in September 2012, APEC Leaders endorsed a list of 54 EG. This is a remarkable accomplishment, and marks a positive contribution by APEC towards the reduction of trade barriers for a number of goods that promote green growth.

The purpose of this policy brief is to analyze the content of the APEC EG list, estimate its current trade value, and corroborate its significance for APEC. In addition, the 2015 tariff goal set by APEC Leaders is compared with the current average MFN applied tariffs in order to find out how far APEC economies are from reaching their goal. Finally, the potential repercussions of the APEC EG list are discussed, in particular at the multilateral level.

Findings

Composition of the APEC EG list

- 54 Harmonized System (HS) sub-headings at the 6-digit level belonging to different types of products. Most goods in the list correspond to three categories: (1) renewable energy production; (2) environmental monitoring analysis and assessment equipment; and (3) management of solid and hazardous waste and recycling systems.

Trade data of the APEC EG list

- World trade flows of products included in the APEC EG list more than tripled throughout 2002-2011, reaching USD 545.6 billion in 2011.
- At present, APEC accounts for nearly 60% of world trade flows in the 54 HS sub-headings included in the APEC EG list.
- Global trade of the APEC EG list of products increased at an annual average rate of 15.5% between 2002 and 2011, while global trade of other goods went up only 11.5% per year over the same period.

Tariff data of the APEC EG list

- In terms of existing MFN tariffs in the APEC region for the 54 HS sub-headings in the EG list, average MFN tariff was equal to 2.9% by the end of 2011. This is below the 5% threshold that was established

by APEC Leaders in November 2011. However, this does not mean that APEC has already accomplished its objective. A further examination of the tariff data shows that the APEC EG list is still very relevant as progress has not been consistent across APEC members and HS sub-headings.

- Striking differences emerge when comparing MFN tariff averages with bound tariff averages. APEC's average bound tariff rate for the 54 HS sub-headings in the EG list is equal to 12%, and only four HS sub-headings have average bound tariff rates below 5%. And only two out of 21 APEC economies have bound tariffs that are below 5% for all HS sub-headings included in the APEC EG list.

Recommendations

The endorsement of the APEC EG list has opened a path for trade liberalization in EG, and the onus is now on APEC member economies to actualize the goal of reducing applied tariffs on these goods to 5% or less by 2015. While tariff data shows that APEC is not far from fully reaching this goal, some extra efforts would be needed at the economy level in specific EGs. And in the current global scenario of weak economic growth, noting that bound tariffs are higher than MFN applied tariffs, it would be important that APEC economies refrain from implementing protectionist measures that may increase the existing applied tariff levels.

At the multilateral level, APEC could build on the momentum that the EG list has generated. For one, there is potential for the APEC EG list to follow the footsteps of WTO's Information Technology Agreement (ITA), which APEC had successfully scaled it up from a regional discussion to a plurilateral agreement in December 1996. Second, APEC could work towards updating the list of goods in the ITA since some products on the list have become obsolete and new IT products have emerged. Updating the ITA would have a substantial impact in reducing or eliminating barriers to trade in these IT products. Then, there is the opportunity for APEC to once again take the lead in WTO negotiations and kick-start discussions on EG at the multilateral level where progress on this issue has been stuck for some time. If bound tariffs for EG are reduced to 5% or less, this would bring about positive spillovers not just for the world economy but for the society at large by providing cheaper access to products which promote environmental objectives.

Structural Reform

APEC's Ease of Doing Business Initiative: Interim Assessment 2009-2011

Series: APEC Economic Policy Report 2012 • Publication Number: APEC#212-EC-01.2

Published Date: October 2012 • Full Report: 402 pages

APEC Leaders in 2009 endorsed the APEC's Ease of Doing Business (EoDB) initiative, which established the goal of an APEC-wide improvement of 25% by 2015 in the five priority areas of doing business, namely: (1) starting a business; (2) dealing with permits; (3) getting credit; (4) trading across borders; and (5) enforcing contracts. An interim goal of a 5% improvement for the period 2009-2011 was also set.

A preliminary assessment based on the World Bank's Doing Business indicators for the period 2009-2010 indicated that APEC made a promising start by showing a combined improvement equivalent to 2.8% in these five priority areas, which was above the 2.5% pro rata benchmark towards the 2011 interim target.

This interim assessment covers the period 2009-2011 and takes into account the dataset released by the World Bank's Doing Business by end-October 2011.

Findings

APEC continued to make collective progress in the EoDB initiative between 2009 and 2011. By using APEC average values and 2009 as the baseline year, the interim assessment shows that the accumulated

progress in all areas by the end of 2011 went further in comparison with 2010. APEC's combined improvement across the five EoDB priority areas between 2009 and 2011 was equal to 8.2%, exceeding the 2011 interim target of 5% improvement.

The three priority areas, which in average terms, improved the most were 'Starting a Business', 'Dealing with Construction Permits' and 'Getting Credit'. Improvement in the priority area of 'Starting a Business' was particularly strong, with remarkable progress across the whole APEC region. A comparison between changes in the average and median values for each of the priority areas between 2009 and 2011 shows that averages improved significantly in the areas of 'Dealing with Construction Permits' and 'Getting Credit', but their median values barely changed. A closer look at the data indicates that most of APEC's average progress in these two areas was explained by improvements in some economies that did not perform well and were located in the bottom half in 2009.

Within APEC, only the areas of 'Starting a Business' and 'Trading Across Borders' registered an increase in its median value equal or above the 5% improvement benchmark.

Table 1 - APEC: Accumulated Overall Progress of Ease of Doing Business Initiative (Average Values)

	Starting a Business	Dealing with Construction Permits	Getting Credit	Trading Across Borders	Enforcing Contracts	Overall Progress
Improvement 2009-2010 ^a	7.5	-0.8	5.6	1.8	0.0	2.8
Improvement 2009-2011 ^b	18.3	10.3	8.8	3.1	0.7	8.2
Difference 2010-2011	10.8	11.1	3.2	1.3	0.7	5.4

Notes: Benchmark 2009-2011 = 5% improvement
Improvements are shown with positive values.

a Figures were taken from APEC's Ease of Doing Business: Interim Assessment published in October 2011.

b Figures were computed from the Doing Business 2012 dataset released by the World Bank at the end of October 2011.

Source: PSU calculations using data from World Bank, Doing Business 2011 and 2012 and updates to Doing Business Database.



Table 2 - APEC and Rest of the World (RoW): Collective Progress in Average and Median Values per EoDB Priority Area (2009-2011)

	Starting a Business	Dealing with Construction Permits	Getting Credit	Trading Across Borders	Enforcing Contracts	Overall Progress
	APEC					
Average Values	18.3	10.3	8.8	3.1	0.7	8.2
Median Values	24.7	-1.0	0.9	5.0	0.0	5.9
	RoW					
Average Values	14.7	10.3	17.4	0.4	-0.2	8.5
Median Values	6.5	4.1	13.3	1.0	0.4	5.1

Notes: Benchmark 2009–2011 = 5% improvement
Improvements are shown with positive values.
Source: PSU calculations using data from World Bank, Doing Business 2012 and updates to Doing Business Database.

Despite the combined progress achieved by the APEC region between 2009 and 2011 in the EoDB initiative, APEC members need to continue their individual and collective efforts to make doing business easier, faster and cheaper. APEC’s average and median improvement rates show that APEC has taken important steps to improve the conditions for doing business, but more work is needed as progress has been uneven across APEC member economies and EoDB priority areas.

APEC economies at all levels of economic development stand to benefit from additional improvements. APEC developing economies have made remarkable progress between 2009 and 2011, but they still have

room for improvement. Progress in APEC industrialized members has been slower, in part because of the good business conditions that are already in place. Nevertheless, there are room for improvement in specific areas, such as the cost of exporting/importing a container (‘Trading Across Borders’).

In terms of the EoDB priority areas, most of the improvement experienced by APEC was explained by the efforts made in one priority area, that is ‘Starting a Business’. Therefore, APEC economies need to strengthen their work in the other priority areas in order to achieve the ultimate goal of an APEC-wide 25% improvement by 2015.

Regulatory Reform – Case Studies on Green Investments

Publication Number: APEC#213-SE-01.4 • Published Date: March 2013
Full Report: 246 pages

This report consists of 12 case studies on the implementation of regulatory policies in selected APEC economies. The purpose is to draw lessons on regulatory reform by analyzing different experiences in formulating and implementing policies to improve energy efficiency and promote renewable energy technologies in particular sectors.

The case studies on energy efficiency focused on these sectors: buildings, transportation and household appliances, while those on renewable energy were related to conventional biofuels, geothermal and solar PV energy. The case studies described the size and significance of the sector in the selected APEC economy, and identified a series of policies implemented by governments to promote investments in the selected sectors and meet policy targets of energy security and environmental sustainability, which are the most common objectives that regulatory reforms seek to accomplish in these sectors.

Each case study also assessed whether the process in carrying out these policies followed certain criteria (good regulatory practices) to facilitate the successful implementation of reforms, such as cost-benefit analysis, scientific integrity, flexibility, transparency and alignment among authorities. The findings in the report would be useful for policymakers since it highlighted the regulatory aspects that should be taken into account when formulating and carrying out policies to meet domestic objectives and promote green investments in energy efficiency and renewable energy.

Findings

The analysis of the 12 case studies highlighted a number of lessons learnt in terms of the implementation of regulatory reforms. Among the main findings are:

- There is potential for APEC economies to improve the effectiveness of their renewable energy and energy efficiency policies by drawing on the experiences of each other and following best practices within APEC.

- Policy revisions are more frequent in APEC industrialized economies, making the policy process more flexible. The design of individual policies sometimes but not always allows flexibility in achieving policy objectives.
- In general, regulatory policies have been driven by good science in industrialized and developing economies. Nevertheless, policymakers sometimes assign excessive weight on this factor in the formulation of policies.
- Cost-Benefit Analysis (CBA) is not the norm in the implementation of policies. Making CBA available to the public could be crucial to assist policymakers to remove potential obstacles to reform.
- Regulatory policies have been overly focused on energy savings and other policy benefits, rather than cost-based measures.
- Alignment among authorities is more common in industrialized economies. However, both industrialized and developing economies face issues such as overlaps in policy design and implementation.
- The effectiveness of the policy architecture depends not just on how individual policies perform, but also on how well they interact with one another. There are benefits to be realized both from coordinating policies that have complementary effects and from avoiding duplication of policies that are close substitutes.
- Transparency and stakeholder engagement are the norm rather than the exception. Nevertheless, some drawbacks may exist if interest groups are too strong and attempts to conduct reasonable reforms are blocked in the absence of effective leadership of the regulatory process.

Recommendations

The report raised some recommendations to the APEC Economic Committee and the Friends of the Chair in Regulatory Reform for further work in the following aspects:

- To promote the use of CBA and work closely with the APEC Energy Working Group to develop metrics assessing regulatory policies on energy efficiency and renewable energy.
- To share experiences and discuss the benefits of using ex-post analysis of instituted regulatory

policies, in order to get a better understanding of the existing measures/programs and facilitate flexibility by fine-tuning policies and achieve objectives.

- To strengthen the discussion on formal mechanisms to strengthen stakeholder consultations.
- To discuss how to foster scientific integrity in developing and implementing regulations.
- To consider how to enhance harmonization among authorities.
- To discuss methodologies for ex-ante Regulatory Impact Assessments.

Implementation of Structural Reforms – Challenges and Good Practices

Series: Policy Brief No. 4 • Publication Number: APEC#212-SE-01.8

Published Date: July 2012 • Full Report: 4 pages

Structural reform is an integral part of APEC's efforts to promote higher quality growth in Asia-Pacific. The APEC New Strategy for Structural Reform (ANSSR), which was endorsed by APEC Leaders in November 2010, seeks to strengthen economic performance and improve social resilience across the APEC region. In 2011, APEC's 21 member economies submitted their individual ANSSR Action Plans, which identified specific structural reform priorities that each would be implementing through 2015.

This policy brief provides guidance to policymakers by explaining some of the common challenges that reformers may face, as well as highlighting a number of important factors to consider during the design and implementation stages of structural reform such as reform sequencing, good practices and coordinated involvement of public institutions.

Findings

Challenges to structural reform:

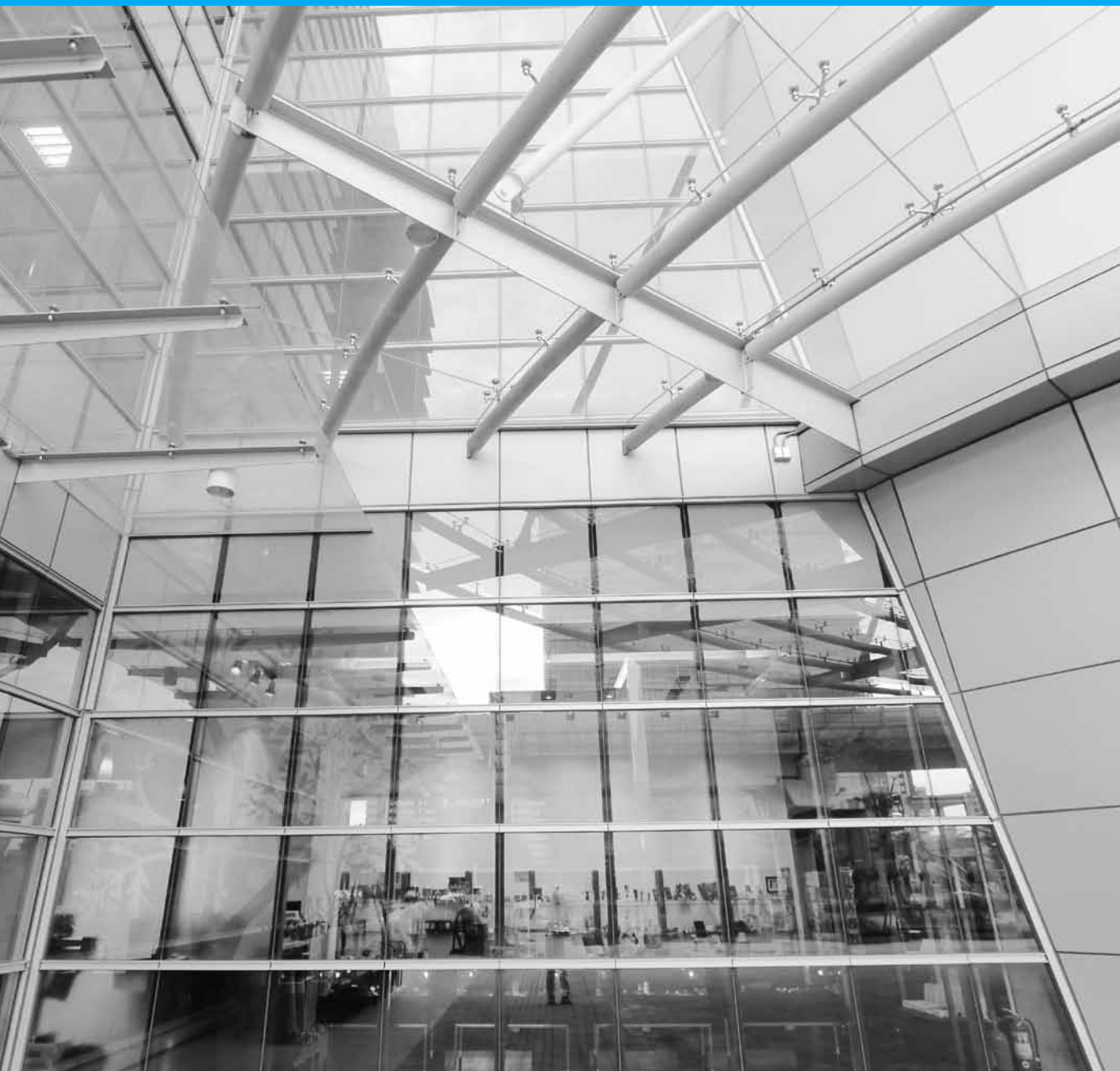
- No “one-size-fits-all” approach; measures should be tailor-made according to different realities and particular circumstances.
- Structural reform involves many complexities and cross-cutting issues, and usually requires the coordinated participation of several public institutions.

- Policy decisions may have an effect on different groups in the business community and civil society, and the implementation of structural reforms entails compliance costs. Consultations and coordination with stakeholders are thus critical to the successful implementation of structural reforms.
- Lack of expertise in the public sector to understand the technical complexities associated with the implementation of structural reforms.

Recommendations

Some best practices to consider during the design and implementation stages of structural reform:

- **Reform sequencing (micro level):** Policymakers should follow a sequence in implementing reforms. For example, if the ultimate objective is to have a more educated and skilled workforce (impact), it will be necessary to find out what needs to be revised (actions/inputs, such as the review of the school curriculum and teaching methodologies), what needs to be produced based on the actions (outputs, such as the development and implementation of a world-class curriculum), and what needs to be changed (outcomes, such as improving the average student performance and higher admission and graduation rates in tertiary education institutions).



- ***Reform sequencing (macro level):*** Policymakers should decide between the adoption of a radical reform (“big-bang”) or a gradual approach. On the one hand, radical reform may weaken opponents to reform, but it may also alienate others to threaten reforms. The ability of the government to engage in sustainable social pacts and provide for temporary social safety nets may determine the ability to implement radical reforms. On the other hand, gradualism allows stakeholders to adjust, but it may entail risks if winners in initial reform stages oppose further reforms.
- ***Good regulatory practices:*** The implementation of reforms should keep in mind some factors associated with economic efficiency and effectiveness (cost-benefit analysis, flexibility, promotion, scientific-integrity and evidence-based approach), and administrative and political viability (transparency and alignment among authorities).
- ***Involvement of public institutions:*** Among the essential components for the successful implementation of structural reform programs are leadership from the top; support from strategic stakeholders; and solid institutional framework to allow the creation of working groups comprising relevant institutions and departments.

Connectivity including Supply Chain Connectivity & Global Supply Chains

Concepts & Trends in Global Supply, Global Value & Global Production Chains

Series: Issues Paper No. 1 • Publication Number: APEC#212-SE-01.4

Published Date: May 2012 • Full Report: 10 pages

Rapid technical progress, improved transportation and communication infrastructure, falling trade and investment barriers, and the emergence of developing, low-wages economies have fragmented the traditional vertically integrated production model, changed the global production chains (GPCs), and facilitated the emergence of global supply chains (GSCs) and global value chains (GVCs). Globalization is also changing the patterns of GSCs and GVCs, and these chains are becoming increasingly interconnected and complex. Moreover, emerging external and industry forces will affect the configurations of future GSCs and GVCs.

Managing and participating in a dynamic and evolving GSC and GVC are challenging tasks for any business. It needs to manage the challenges, capitalize on new opportunities, and mitigate the risks. It is important for APEC policymakers and businesses to have sufficient knowledge and information on how GSCs and GVCs work, and to understand the major challenges and factors that affect the governance of GSCs and GVCs. In this way, APEC policymakers will have ample information to make informed decisions and take appropriate actions to address the key challenges and help businesses to take advantage of potential opportunities.

There are various perspectives on the concept of GSC, GVC and GPC which at times can create some confusion. The purpose of this paper is to clarify and discuss these concepts to enhance APEC's understanding, highlight the evolution and major trends of the three chains, and identify the key challenges and priorities where APEC can help to address.

Findings

Concepts of GPC, GSC and GVC

There are multiple definitions of the term supply chain. In this paper, supply chain refers to a system of organization, people, technology, activities, information and resources involved in moving a product or service from supplier to customer. Supply chain activities transform natural resources, raw materials and components into a finished product that is delivered to the end customer.

GVC refers to the full spectrum of value added activities required to bring a product from its conception, through design, sourcing raw materials and intermediate inputs, production, marketing, distribution and support to final consumers. On the other hand, GPC refers to linkages within or among a group of firms in a particular GVC for producing specific products, such as particular types of computers, mobile phones and automobiles.

The basic network structure for GSCs and GVCs is similar. However, the focus of GSCs is on moving goods and services through the network, while the focus of GVCs is on creating value of the goods and services at each stage of this network. In contrast, the focus of GPCs is on the production of goods and services.

Trends and future GSCs and GVCs

GSCs and GVCs are dynamic and becoming increasingly interconnected and complex. External and industry forces have already changed the governance of the GSCs and GVCs over the years, and they will continue to drive change in the coming years. The key external forces include:

- Economic trends: emerging markets;
- Ecological trends: sustainability and scarcity of natural resources;
- Regulatory trends: new rules, new compliancy;
- Natural disasters and pandemics;
- Demographic trends: greying and urbanization; and
- New technology trends: technological advances.

There are also key industry trends that will affect the future supply chain and value chain, such as:

- Consumer behavior: driving the value chain;
- Product flow: redesigning supply chains; and
- Information flow: managing complexity through transparency.

Recommendations

The paper identifies that there is scope for APEC to undertake more work in this area through conducting studies:

- To advance APEC's understanding on critical issues related to the GSCs and GVCs;
- To analyze how external and industry forces have affected the GSCs of key industries in the region, the major obstacles that the main participants face, and how they have responded and adapted to these changes;
- To better understand the role of GVCs for key industries in the region and how these GVCs would affect the patterns of trade and investment in the region; and
- To examine how emerging external forces and industry forces would affect the patterns of future GSCs and GVCs and their impacts on businesses in the region.

SMEs' Participation in Global Production Chains

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Published Date: March 2013 • Full Report: 52 pages

In 2011, APEC identified three "next generation" trade and investment issues that would contribute to a Free Trade Area of the Asia-Pacific (FTAAP), one of which was to enhance the small and medium-sized enterprises' (SMEs') participation in global production chains (GPCs). This issues paper aims to contribute to the understanding on this issue by addressing these topics:

- Definitions of SMEs and GPCs, types of GPCs and forces transforming them;
- Benefits and drawbacks of SMEs' participation in GPCs;
- Current situation of SMEs' participation in GPCs, including the obstacles they face and ways to address them;
- APEC's involvement in SME issues; and
- Recommendations to facilitate SMEs' participation in GPCs.

The paper also provides examples of case studies at the sector level where successful SMEs' participation in GPCs has been recorded, and where certain obstacles have constrained the SMEs' development.

Findings

SMEs account for the majority of the enterprise population in the APEC region, and their businesses constitute a substantial portion of regional economic activities. Rising globalization and economic integration have enabled SMEs to increase their contributions to the region's development through greater participation in GPCs. More and more SMEs are engaged in activities that link up with multinational corporations, providing intermediate goods or services that are used to build the final products.

Although not without its drawbacks, SMEs' participation in GPCs presents a broad range of opportunities and benefits. However, it is not an easy task for SMEs to participate in GPCs, and the current level of participation is generally low. To enter and to stay in GPCs require SMEs to overcome various challenges, such as finance, human resources, global standards, and changing international business practices.

Recommendations

The paper recommends APEC governments to consider the following areas in order to facilitate the gainful participation of SMEs in GPCs.

Provide an enabling business environment for SMEs

- Ensure macroeconomic and financial stability, low inflation, currency convertibility, regulatory and policy consistency, as well as sound governance and transparency.
- Attract MNCs to set up business and operate their value/production chains through openness of local markets, strong property rights protection and contract enforcement, and equal treatment for both local and foreign enterprises.
- Provide business development service (BDS), such as business counseling and consulting, training on business-related skills, business linkage service, etc.
- Develop efficient logistics networks connecting firms within and among clusters.

Improve access to financing for SMEs

- A comparative study on bank loans, leasing and factoring, trade credits, venture capital, and business angel investment could help to better the understanding of these options and the pros and cons of using them in the APEC context.
- Put in place economic and financial safety nets for SMEs to prevent or cope with large scale macroeconomic disruptions.

Strengthen (global) cooperation and network among SMEs as well as between MNCs and SMEs

- Build cooperative networking and clustering among SMEs and facilitate cooperation among SMEs to improve their capability for participating and upgrading in global production chains. The cluster should not be constrained at the domestic level; across-economy clustering could also be explored.
- Work in partnership with MNCs and high-tier suppliers (large enterprises) to provide tailor-made programs to upgrade the skill sets of SMEs.
- Enhance utilization of ICT; improve SMEs' understanding of how to utilize the ICT networks and other innovative technologies.

Increase knowledge of SMEs about FTAs

- Minimize the distortionary effect of FTAs and facilitate the movement of goods and services across borders.
- Provide training on FTA provisions as well as set up dedicated websites and telephone help-lines to provide specific information on the utilization of FTAs.
- Evaluate some pro-SME policies and develop model chapters on SME development as a reference for trade negotiators.

All of the above measures would be able to support SMEs in improving their competitiveness, both locally and globally. Last but not least, as UNESCAP (2009) noted, the ability to become a participant in the global production chains depends on the capacity of indigenous SMEs to overcome the constraints of smallness and newness, and to continuously innovate productively as they grow.

Economic Impact of Submarine Cable Disruptions

Publication Number: APEC#213-SE-01.2 • Published Date: February 2013

Full Report: 96 pages

This study aims to enhance the security and quality of cross-border communications, which is the goal of chokepoint 7 in the APEC Supply Chain Connectivity Framework Action Plan (SCFAP). The study covers these areas:

- Development of submarine cable systems in the APEC region;
- Dangers to and disruptions of submarine cable systems in the APEC region;
- Analysis of economic impact of submarine cable disruptions using the Economic Impact Model;
- Current cable protection and mitigation measures; and
- Recommendations for future cable protection and mitigation measures.

Findings

The amount of data and information generated, sent and received through the global submarine telecommunications cable network in recent years has experienced unmatched growth and exceeded any kind of information transmission previously known by far. Deployed international bandwidth increased at a compound annual rate of 57% between 2007 and 2011. The situation is no different in the Asia-Pacific region.

Submarine telecommunications cables are also responsible for the carriage of approximately 97% of international communications worldwide and are the principle means for carrying international communications in many APEC economies. As such, any damage or disruption to the submarine cables and their networks can pose a significant threat to trade and investment flows, and therefore to regional economic well-being.

Despite being examples of advanced technology, submarine cables are susceptible to damage. The hazards to submarine cable-bound communication can be natural hazards to the cables themselves; man-made hazards to the cables themselves; and hazards to the remaining infrastructure, especially landing stations and IT network management systems. Insufficient availability of repair vessels is a further hazard.

The study also identified three especially vulnerable chokepoints that require special attention: the Strait of

Malacca between Malaysia, Singapore and Indonesia; the Strait of Luzon between Chinese Taipei and the Philippines; and the South China Sea. These are areas where a single landslide or a ship dragging its anchor can break several cables, hence disrupting the internet traffic.

In addition, the Economic Impact Model that has been developed for the purpose of this study produced the following results:

- There is sufficient redundancy and resilience in the APEC footprint now and also for the traffic demands towards the end of the decade given the number of new submarine cables and the potential capacity of existing cable systems. Every member economy is connected using various landing points (at least two), which also provides redundancy in terms of landing points and in more endangered coastal waters.
- There are some critical areas, where the establishment of additional geographic diversity may be helpful, mostly in the Strait of Luzon, where no alternative overland route is available. Furthermore, the deployment of further, already planned cables will continue to provide additional geographic diversity and reduce the effect of multiple outages in the coming years. However, the Model also outlined the economic importance of international connectivity as a whole and that significant economic costs are associated with a loss in traffic. International connectivity remains a relevant issue and submarine cables carrying most of that traffic need to be protected.
- The economic impact of a loss in submarine cable connectivity for individual APEC economies varies depending on the respective size of the (international) internet economy and the network effects. For example, based on the Model, a fault in all landing points in Australia would entail direct costs (for cable repair) of USD 2.2 million and indirect economics cost of USD 3,169 million mostly due to the loss of 100% of international internet traffic. It should be noted that the loss of internet connection in Australia would also cut off the internet connection in Papua New Guinea. For a similar case in Korea, the indirect economic costs would be around USD 1,230 million. But for a similar case in Canada, the economic costs would be zero, as there is alternative overland connectivity available to the US. In general one can infer that the

economic impact of submarine cable disruptions would be relatively much higher in APEC island member economies as they lack alternatives to submarine cables for international data connectivity.

Recommendations

In view of the immense importance of submarine cables and the potential losses which may occur in case of disruption, there are good reasons for member economies to develop a stronger interest in the protection of submarine cables and impact mitigation. The study provides recommendations on cable protection and impact mitigation measures which can be taken by member economies. They are as follows:

1. Protection measures

Measures concerning cable system and its facilities

- Establish penal offences for intentional or negligent damaging of submarine cables (in compliance with the United Nations Convention on the Law of the Sea (UNCLOS) where applicable).
- Establish tort law liabilities for everyone intentionally or negligently damaging submarine cables, and establish insurance obligations for ship-owners.
- Establish protection or no-anchoring and no-fishing zones around submarine cable systems and landing stations, and educate fishermen about the importance of submarine cables.
- Seek an agreement with cable operators on technical standards for the cables, including a protective shell for the cable and the repeaters and ploughing of cables into the seabed.
- Seek an agreement with cable operators on protection measures for the network management systems (protection against cyber-attacks), for the landing stations (physical protection and staff), and for the cable repair vessels.
- Develop a coordinated process among relevant public agencies to protect installations against piracy, terroristic attacks or sabotage, and provide a fast and coordinated response in such an event. Deploy and train naval forces for such events.
- Facilitate the application of Automated Identification Systems (AIS) for all vessels.

Measures concerning cable routing

- Minimize requirement to obtain permission for cable deployment and replace with monitoring and information measures (registration).
- Establish mapping requirements mandating the display of submarine cable systems and/or the protection zones on nautical charts.

Measures concerning cable repair process

- Minimize requirement to obtain permission for cable repair and replace with monitoring and information measures.
- Monitor the status of the submarine cables, oblige operators to report all incidents and repair processes and monitor the cable repair process.

2. Impact mitigation measures

Measures concerning overall network resilience

- Establish incentives to help create new, geographically diverse routes (via sea or land, additional landing points for cables, etc.), especially at critical chokepoints and through cooperation with operators and investors (e.g., public companies, PPP and subsidies).

Measures concerning traffic management

- Assess advantages and disadvantages of traffic management systems, including IP deep packet inspection and Quality of Service standards.
- Request operators to prepare comprehensive business continuity plans, and monitor their preparation.

General measures

- Set up a single point of contact for all relevant stakeholders, a situation room or staff unit at a competence centre.
- Stronger cooperation in APEC and regional set-up of joint bodies establishing common standards and aligned strategies on the issue.
- Stronger cooperation between cable operators and member economies in the International Cable Protection Committee (ICPC) or other similar international organizations and UNCLOS.
- Set up a modern, comprehensive and appropriate legal framework for submarine cable protection and impact mitigation, bundling and streamlining all efforts.
- Set up a dedicated body bundling responsibilities and implementing all measures, monitoring operators and the situation (competence centre, lead agency), located as an example at the domestic regulatory authority for telecommunication.

Considering the potential for substantial economic loss arising from cable disruption and the high likelihood of severe disruptions in some regions, an overall recommendation is for member economies to sharpen their focus on the issue of submarine cable protection and risk mitigation. A “wait and see” approach may be tempting, but is too risky as too much is at stake.

Economic & Financial Analysis

APEC Economic Trends Analysis

The APEC Economic Trends Analysis is a new research product that the Policy Support Unit (PSU) initiated and launched in 2012. It aims to provide succinct and timely analysis on the recent economic performance of APEC economies and the APEC region. The report is prepared prior to the APEC Economic Committee (EC) meeting to serve as a source of information for discussion among EC members as well as other APEC officials.

Series: February 2012

Publication Number: APEC#212-SE-01.2 • Published Date: February 2012

Full Report: 14 pages

Findings

Global GDP growth decelerated in 2011

- The intensification of sovereign debt challenges in the Euro area since July 2011 has resulted in slowing economic growth across the world. GDP in some large economies in Europe contracted towards the end of 2011.
- The APEC region was also struck by a series of natural disasters which caused immeasurable human losses and record economic costs.
- The slowdown in global growth in 2011 was less synchronized. Economic activity in advanced APEC economies generally picked up after a subdued performance in the first half of 2011. In most emerging APEC economies, economic growth was resilient throughout 2011, although the momentum has slowed since Q3 2011.
- Inflationary pressure in the APEC region began to ease in the second half of 2011, consistent with the global trend, as commodity prices began to stabilize.
- Inflationary pressure is low in advanced APEC economies, despite measures to boost economic growth, while many emerging APEC economies successfully reduced inflation by the end of 2011.
- Equity prices in most APEC markets have exhibited sharp swings in the second half of 2011 with emerging APEC markets generally underperforming as investors sold their positions to cover losses in European markets.

- Frequent fluctuations in investors' risk sentiment have also caused volatility to return to exchange rate markets, especially during the second half of 2011.

Prospects for growth are uncertain and downside risks have intensified

- Global GDP is forecast to slow to 3.3% in 2012 before accelerating to 3.9% in 2013, mainly due to the continued economic weakness in the Euro area. Real GDP in the APEC region is projected to grow by 4.1% in 2012 and 4.5% in 2013. However, an escalated sovereign debt crisis in the Euro area could potentially send the global economy back into recession.
- Economic growth in the APEC region is likely to remain under pressure. In advanced APEC economies, both governments and households are expected to tighten spending in order to reduce their debt positions. In some emerging economies, asset price bubbles and a sudden reversal of the buoyant capital inflows are among the main concerns.
- Risks to global inflationary pressure remain in 2012. Oil prices, which have held up in recent months, could surge higher as a result of geopolitical concerns. The easing of monetary policies pursued by both advanced and emerging economies to bolster growth could also drive up prices further.

Policy implications for APEC

- Uncertainty in the economic outlook has created new challenges for businesses, with small and medium-sized enterprises (SMEs) being more vulnerable. In addition to implementing monetary and fiscal policy to maintain macroeconomic and financial stability, policymakers should therefore monitor and provide extra support to SMEs, if necessary.
- The Asia-Pacific region is prone to natural disasters. Given the interconnectedness of the APEC region's supply chains, the adverse consequences of natural disasters on the region's growth and competitiveness could be significant. It is therefore important that APEC members collaborate and strengthen the agenda on disaster preparedness to prevent and mitigate the impact of future events.
- Despite the uncertain economic outlook, APEC economies should continue to pursue the regulatory reform agenda as identified in the APEC New Strategy on Structural Reform (ANSSR) in order to enhance the competitiveness and resilience of the domestic economy.
- APEC can play a significant role by continuing to monitor and report on the region's economic and financial developments. APEC can also contribute by helping to expedite the pace of structural reforms and promoting enhanced awareness among APEC member economies in the areas where structural reforms would add most value.

Series: May 2012

Publication Number: APEC#212-SE-01.6 • Published Date: May 2012
Full Report: 18 pages

Findings

APEC's economic growth decelerated in 2011

- The APEC region's GDP growth in 2011 moderated from a strong 5.9% in 2010 to 4.1% in 2011. While the intensification of the Euro area sovereign debt crisis in late 2011 had a limited effect on the APEC region's financial conditions, it did have a significant impact on many APEC economies' trade and investment performance. This was further exacerbated by disruptions in the region's supply and production chains, caused by a series of devastating natural disasters.
- Despite uncertainty in the external environment, private consumption in the APEC region remained strong and was the key driver of growth in many APEC economies.

Globally, economic performance in the first few months of 2012 remained mixed

- Global industrial production has started to recover, suggesting that global growth could accelerate, albeit at a weak pace, in Q1 2012. However, economic performance has remained weak in much of Europe. The UK entered a technical recession in Q1 2012 while the Euro area registered no growth in the same quarter.

- In the APEC region, the U.S. economy recorded its 11th consecutive period of growth in Q1 2012 while Japan rebounded strongly from the Q4 2011 recession. In emerging and developing APEC economies, export growth continued to weaken and contributed to moderated growth in some economies.

Short-term prospects for growth are uncertain with risks remaining on the downside

- Global GDP is forecast to slow from 3.9% in 2011 to 3.5% in 2012 before accelerating to 4.1% in 2013.
- The global economy is vulnerable to a fresh intensification of the Euro area crisis, which could be triggered by a severe recession from large-scale government budget-tightening across Europe and/or a drastic contraction of European banks' balance sheets.
- Oil prices, which regained early-2011 highs in March 2012, could surge higher as a result of geopolitical concerns. A sustained 20% increase in oil prices could subtract global growth by a substantial 1.5 percentage points.

The APEC region is expected to outperform the world with growth forecast to accelerate to 4.3% in 2012 and 4.7% in 2013

- Industrialized APEC economies have defied the global trend of moderating economic growth with GDP forecast to pick up by 2.1% in 2012. This is quite significant given that a recession of 0.1% is forecast for non-APEC industrialized economies in 2012.
- Growth in emerging and developing APEC economies is expected to soften to 6.3% in 2012 before picking up by 6.9% in 2013. Despite this moderation in growth, emerging and developing APEC remains the fastest growing region in the world, contributing to more than 50% of global real GDP growth.

However, APEC's growth prospects are likely to be influenced by external forces

- In industrialized APEC economies, both governments and households are expected to tighten spending in order to consolidate their balance sheets. The uncertain global economy, which could translate into lower investment and export growth, could seriously jeopardize the recovery process of these economies.
- The uncertain global growth outlook remains the strongest headwind for emerging and developing APEC economies in 2012 and 2013. Economies with large and robust domestic markets and less reliance on exports as a driver of growth will be in a better position to weather the external slowdown. On the other hand, growth is expected to slow sharply among economies with relatively high exposure to the external market but with small domestic consumption bases.
- The APEC region as a whole is a net oil-importer. Large and sustained increases in oil prices due to geopolitical concerns in the Middle East could also negatively impact APEC's growth by putting upward pressure on inflation and deteriorating the region's terms of trade.

Key Trends and Developments relating to Trade and Investment Measures and their Impact on the APEC Region

This report is presented following the commitment made at the APEC Ministerial Meeting (AMM) in Singapore in November 2009 to continue to review recent economic measures undertaken by APEC economies.

Series: June 2012

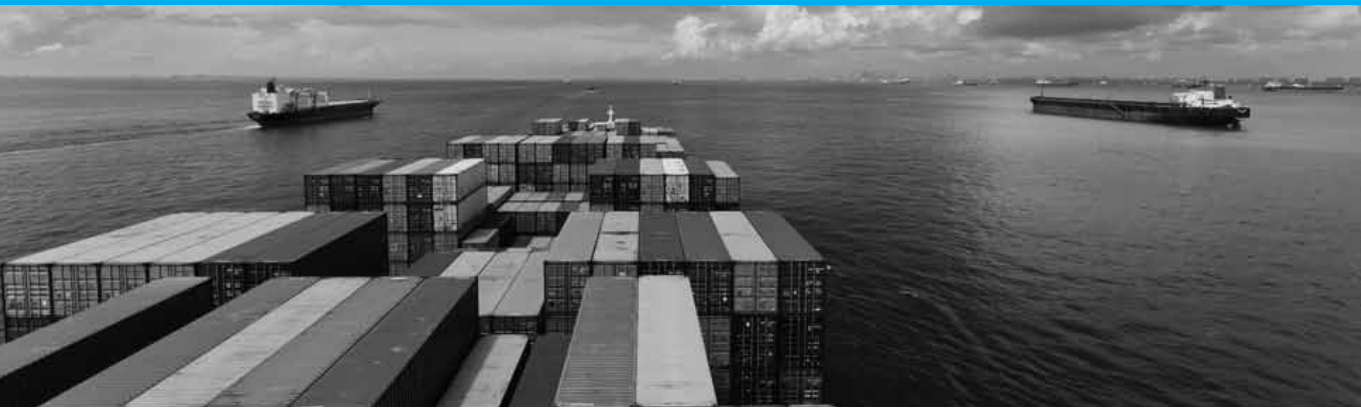
Publication Number: APEC#212-SE-01.5 • Published Date: June 2012

Full Report: 27 pages

Findings

Economic outlook

- The IMF estimates that global real GDP growth will slow from 3.9% in 2011 to 3.5% in 2012, followed by an expansion of 4.1% in 2013. While the euro area is predicted to enter a mild recession in 2012, APEC economies, particularly developing APEC economies, continue to drive global real GDP growth. Having moderated from 5.9% in 2010 to 4.1% in 2011, real GDP growth in the APEC region is forecast to outperform the rest of the world, growing by 4.3% in 2012 and 4.7% in 2013.
- Although a slight recovery is predicted in the major advanced economies and activity is expected to remain relatively solid in most emerging and developing economies, the IMF stresses that significant downside risks still remain. Major risks to the global economy include a further escalation of the euro area crisis, a sharp increase in oil prices, disruption in global bond and currency markets, and slowing activity in some emerging economies.



Trade flows and trade-related measures

- The WTO reports that growth in the volume of world merchandise trade slowed to 5% in 2011 from 13.8% in 2010 as a number of shocks caused the global economy to lose momentum. Merchandise exports from developed economies exceeded expectations, growing by 4.7%, while shipments from developing economies did worse than had been expected, expanding by 5.4% in 2011. In nominal dollar value terms, the WTO reports that world merchandise trade increased by 19% to USD 18.2 trillion in 2011, with much of this growth due to higher commodity prices. In addition, world exports of commercial services rose by 11% to USD 4.1 trillion.
- Natural disasters in Japan and Thailand, both of which severely disrupted global supply chains, particularly for electronic components and automotive parts, significantly affected exports from many economies. A deceleration in export growth was indeed most pronounced among APEC economies where technological goods account for a large share of total merchandise exports. The WTO forecasts that growth in merchandise trade volumes will slow further in 2012 to 3.7%, with growth driven mainly by developing economies, which is below the long-term annual average of 5.4% for the last 20 years.
- The WTO also recently reported that there has not been any slowdown in the imposition of new trade restricting measures since late 2011, adding to the stock of restrictions put in place since the outbreak of the global financial crisis, while the removal of existing restrictions has been very slow. The trade coverage of the restrictive measures implemented since October 2008, excluding those that were terminated, is estimated to be almost 3% of world merchandise trade, and almost 4% of trade by the G20 members.

Foreign Direct Investment (FDI) and investment-related measures

- UNCTAD reports that global foreign direct investment (FDI) flows rose by 17% in 2011 from 2010 to reach USD 1.5 trillion as cross-border merger and acquisitions (M&As) increased nearly 50%, while Greenfield investments fell for the third consecutive year by 3.3%. After declining for the past three years, FDI flows to developed economies rose by 18.5% in 2011 to over USD 750 billion, mainly driven by an increase in cross-border M&As in Europe, while FDI flows to developing economies grew by 13.7% to reach USD 664 billion. UNCTAD estimates that global FDI flows will increase only slightly in 2012 to around USD 1.6 trillion.
- UNCTAD also found that most investment policies recently implemented were related to investment liberalization and promotion. Nevertheless, the number of new international investment agreements (IIAs) globally fell in 2011 from 2010. Although 16 APEC members concluded at least one IIA in 2010 and in 2011, the number of IIAs between two APEC members fell from 11 in 2010 to four in 2011. Meanwhile, investor-State dispute settlement cases grew between 2010 and 2011, with the highest number of known treaty-based disputes ever filed in one year recorded in 2011. Of the new cases initiated in 2011, 10 were against an APEC member economy, and of those, four were initiated by a company based in another APEC economy.

The WTO highlights that the trade policies in some economies appear to be turning inward-looking and the implementation of new trade restrictions continues unabated. Meanwhile, the accumulation of these measures, which is aggravated by the relatively slow pace of removal of existing measures, has become a matter of concern. The WTO emphasizes the need for greater international cooperation to increase trade, which is critical to stimulating the global economic recovery and to supporting fiscally sustainable growth.

Series: September 2012

Publication Number: APEC#212-SE-01.9 • Published Date: September 2012

Full Report: 32 pages

Findings

Economic outlook

- Economic activity in the APEC region is expected to remain relatively robust in the medium-term, although growth forecasts have been trimmed in light of the increased uncertainty abroad. Based on IMF data, real GDP growth for the APEC region is forecast to accelerate from 4.1% in 2011 to 4.2% in 2012 and 4.5% in 2013, outperforming the rest of the world. Notably, GDP in industrialized APEC economies is forecast to grow by 2.1% in 2012 and 2.2% in 2013, while non-APEC industrialized economies are predicted to grow by only 0.1% and 0.8% in 2012 and 2013, respectively. In addition, emerging and developing APEC economies continue to be the engine of global growth. This group is forecast to grow by 6.3% in 2012 and 6.9% in 2013, contributing to more than half of global real GDP growth.
- However, the IMF stresses that downside risks to the global outlook continue to loom large. The most immediate threat is a further escalation of the Euro area debt crisis. Risks associated with excessive fiscal austerity in some large advanced economies and an unwinding of credit booms in some emerging economies are also of concern, while large and sustained increases in global commodity prices could also negatively impact global growth. Therefore, coordinated and collective action by the entire global community is required in order to end the current period of continuing uncertainty and to ensure future stability and economic growth.

Merchandise trade and trade-related measures

- In the first five months of 2012, the volume of world merchandise trade expanded at an average monthly rate of 2.6% (y-o-y) – a sharp slowdown from an average monthly growth rate of 5.8% in 2011 – mainly due to sluggish economic activity in advanced economies. Weak global economic activity and deflated traded good prices have also dampened trade momentum in the APEC region. Growth in the nominal USD value of merchandise trade moderated to 4.6% (y-o-y) in May 2012, down from a 12.1% growth rate in December 2011. Despite this slowdown, trade in the APEC region

has outperformed trade in the rest of the world as the value of merchandise trade in the rest of the world contracted by 5.6% in May.

- However, export performance varied markedly among the APEC members in the first half of 2012. Amid reduced global demand and a large fall in commodity prices, the slowdown in export growth was more pronounced among those APEC members where such products play a significant role in total exports. In the medium-term, global trade is expected to continue expanding, but at a lower annual rate in comparison with historical standards. The WTO forecasts that global trade will expand by a subdued 3.7% in 2012, down from a 5.0% expansion in 2011. However, this projected expansion in global trade is by no means guaranteed as the global recovery remains vulnerable to significant downside risks, including the ongoing uncertainty over the Euro area debt crisis.
- The WTO recently reported that there had been no slowdown in the imposition of new trade restrictions between mid-October 2011 and mid-May 2012. During this period, 182 new measures that restrict (or potentially restrict) or distort trade were recorded, affecting around 0.9% of global imports. These measures (including trade remedies, tariff increases, import licenses, and customs controls) appear to be aimed at trying to stimulate domestic recovery through industrial planning rather than trying to combat the temporary effects of the global crisis. Also of concern is the accumulation of trade restrictions, as these new measures add to those previously put in place.

Foreign Direct Investment (FDI) and investment-related measures

- UNCTAD reports that global FDI inflows rose by 16.5% in 2011 from 2010 to reach over USD 1.5 trillion. In 2011, 48.1% of the world's FDI inflows went to APEC economies (USD 732.6 billion), accounting for 46.7% of the growth of FDI inflows in 2011. FDI inflows to APEC economies continue to recover strongly following the global financial crisis;



- the 2009-2011 annual average of FDI inflows to the APEC region was 12.8% higher than their annual average in the pre-crisis period of 2005-2007 (in nominal terms). FDI inflows to the APEC region in 2011 were driven by merger and acquisitions (M&A) activity, the value of which continued to rise for the third year in a row.
- However, uncertainty and risks remain for growth prospects in the medium-term, particularly since ongoing concerns over the global economy continue to dampen investor sentiment. UNCTAD forecasts that global FDI inflows will increase by just 5% in 2012 to USD 1.6 trillion and, barring any macroeconomic shocks, by 11% in 2013 and by 7% in 2014. Preliminary estimates of FDI inflows for Q1 2012 do indeed confirm a slowdown in global FDI activity. Global FDI inflows fell by 17.3% in Q1 2012 from the previous quarter and are 3.3% lower than their level a year earlier. Based on FDI data for selected APEC economies, regional FDI inflows fell by 28.9% in Q1 2012 from Q4 2011, but were 9.2% higher than their level in Q1 2011.
 - Although many economies continued to liberalize and promote foreign investment in various industries to stimulate growth in 2011, new regulatory and restrictive measures also continued to be introduced, particularly for industrial policy reasons. UNCTAD found that the 67 investment

policy measures undertaken in 2011 were generally favorable to foreign investors – the share of policy measures that were more restrictive fell to 22% in 2011 from 32% in 2010. However, the number of international investment agreements (IIAs) signed in 2011 fell to 47 compared with 69 in 2010. This loss of momentum in traditional investment treaty making is expected to persist through 2012, which saw only 12 IIAs concluded during the first five months of the year.

Despite the relatively strong economic performance of the APEC region, the ongoing uncertainty in the external environment is of serious concern. The slowdown of global growth and the fragility of the economic recovery, as well as the continuing downside risks that remain, present substantial challenges for the region. Coordinated and collective action by the entire global community is therefore required in order to end the current period of uncertainty and to ensure future stability and economic growth. In June 2012, APEC Trade Ministers meeting in Kazan, Russia reaffirmed the commitment made by APEC Leaders in 2011 in Honolulu to extend to the end of 2015 their pledge to refrain from raising new barriers to investment or to trade in goods and services, imposing new export restrictions, or implementing WTO-inconsistent measures in all areas.

Sustainable Economic Development

Food Security Policies in APEC

Publication Number: APEC#212-SE-01.11 • Published Date: September 2012

Full Report: 123 pages

This study complements APEC's ongoing work towards a comprehensive and unified Food System approach that promotes food security throughout the region. Because of the sharp rise in food prices in 2007-2008 and again in 2011 as well as increased food price volatility, food security has become a major concern among many APEC economies. Rising food prices have resulted in intense discussions at both regional and domestic levels, resulting in new policy responses that have tried to address their negative impacts on vulnerable sectors of society. It is only by understanding what is taking place on the ground, and doing an analysis across economies that APEC can formulate a unified approach at a regional level that will address food security more effectively.

APEC has an important role to play in helping to improve regional and global food security. First, while APEC's member economies have reduced the region's undernourished by 24% in the last two decades, there is still about one quarter of the world's hungry residing in the region. Second, APEC accounts for 53% of global cereal production and almost 70% of fish production. Third, APEC consists of major players in global agricultural trade. Together, APEC economies generated around 34% and 36% of global agricultural exports and imports, respectively, in 2009 and also accounted for a significant share in the trade of key agricultural commodities. Four, APEC economies are vulnerable to food security risks throughout the food chain as exemplified by a number of protests and riots that occurred during the food price crisis in 2007-2008. Finally, the region is frequently exposed to natural disasters that temporarily disrupt food supply, damage the food production base, disrupt livelihoods, displace people and reduce access to food.

Given the complexity of factors affecting food security, a generalized concept of food security consisting simply of supply and demand is no longer adequate for planning anticipatory and response strategies. A more comprehensive approach is required, one that is broader in scope and one that takes into consideration all four basic dimensions of food security: availability, physical access, economic access and utilization. Thus, a multi-methods approach purposely built around these four dimensions was employed to achieve the project's objectives. It included the administration of a survey instrument to appropriate contacts in each economy, a literature review of secondary sources, and interviews with relevant stakeholders. The analysis produced many relevant findings and also allowed for several policy recommendations, both of which are presented below.

Findings

Food security in APEC

- All APEC economies experience some form of food insecurity to some degree or another. While many are food secure at the macro level in terms of food availability, the picture is different at the household level.
- Agriculture and food security are now firmly back on the development and political agendas for most APEC economies, with some even identifying food security as of national strategic importance.
- Economies with common attributes vis-à-vis agriculture share common concerns across all four food security dimensions.
- In several APEC economies, food security is equated to rice self-sufficiency. Thus, many national policies are biased towards rice production or at least towards stabilizing domestic rice prices.



Policy responses

- APEC economies have responded to the various food security concerns by either reinforcing existing policy instruments or by introducing new ones. However, the policy focus has been biased towards increasing food availability and lowering food prices as well as cushioning the impact of higher prices on their populations.
- Common farmer-oriented policies have focused on reduced taxes, producer credit or financial support services, seed and fertilizer subsidies, producer price subsidies or building reserves, all aimed at increasing productivity and total production.
- Economies have also introduced trade policy measures to curtail price increases and ensure adequate supplies in domestic markets. Responses have depended to a great extent on whether the economies in question are net importers or exporters of food.
- Because of the devastating impact of extreme weather events on the agricultural sector in the last few years, a number of APEC economies have streamlined their frameworks for disaster assistance, climate change and green growth.
- Many APEC economies are increasing the size of their grain reserves, thus raising concerns about tighter international grain markets.
- Within the APEC region, a number of economies have increased their pro-biofuel policies resulting in an expansion of their biofuel industries. These are potentially in conflict with the region's food security objectives.
- Farmland expansion and acquisition are new food supply strategies in a number of economies.
- To address the 'economic access' dimension of food security and in particular rising food prices, economies have tried to cushion the impact of higher prices on more vulnerable sectors of society by a combination of food price controls, food price subsidies, imposition of safety nets, releasing stocks to stabilize prices, and food assistance and distribution.
- After decades of neglect, government expenditure in agriculture is now on the rise again in a number of APEC economies.
- Infrastructure leading to improved physical access to food is still in much need of investment, particularly in developing economies.
- Having been routinely neglected by governments and the donor community for many years, nutrition is now more explicitly recognized as being closely associated to food security and economies have begun to step up interventions in this area.

Governance of food security

- Potential conflict exists between food security objectives and those of other sectors.
- Multiple agencies or departments are involved in dealing with the diversity of issues related to food security and this often results in disconnected policy-making and miscommunication.

- In addition to their commitments to food security initiatives within APEC, member economies are also taking part in other regional and global initiatives by bodies such as the G20, G8, ASEAN, the United Nation's High Level Task Force on Food Security, the Committee on World Food Security, the World Economic Forum, the CGIAR, etc. Thus, there is potential for overlap.

Issues requiring additional attention

- Noticeably overlooked in national policy discussions related to food security is the contribution of the fisheries and aquaculture sector.
- The role of reducing food losses is often underestimated in food security discussions.

Recommendations

- **Put food first.** Food security should continue to be on top of the political and development agendas of APEC economies as well as of the international community.
- **Think beyond borders.** While food (rice) self-sufficiency has powerful resonance throughout the region, economies should be cautioned against the potential repercussions of such an approach. Policies that distort production and trade in agricultural commodities could potentially impede the attainment of long-term food security.
- **Get the balance right.** Economies should not lose sight of the fact that short-term policies or “coping” strategies (vs. “curing” strategies), particularly to increase food availability run the risk of countering the goal of addressing the longer-term determinants of food insecurity.
- **Connect the dots.** More interconnected policy-making is needed to reduce policy conflicts between food and other sectors.
- **Take stock before moving forward.** APEC is encouraged to assess (both qualitatively and quantitatively) the robustness of each economy's

capacity to address the present and future challenges of food security. This would help prioritize what urgent action needs to be taken at both the domestic and regional levels.

- **More food does not necessarily ensure more food security.** Economies should recognize health and nutrition as being closely associated to food security and should intensify efforts to build a more food and nutrition conscious community.
- **Invest in the future now.** Investment in all aspects of agriculture remains critical to sustainable long-term food security.
- **Protect the most vulnerable.** To protect the most vulnerable during emergency situations, the establishment and scaling-up of social protection programs, especially social safety nets should be accelerated.
- **Deal with waste.** The contribution of reducing food losses should not be underestimated. Addressing losses across the entire food chain will be critical in any strategy to feed the region's growing and increasingly affluent and urban population.
- **Ensure fish for all.** Given its importance socially and economically within the region, appropriate attention and investment should be given to the fisheries and aquaculture sector to meet present and future challenges.
- **Coordinate and complement. Don't duplicate.** APEC should work collaboratively with existing food security initiatives.
- **In uncertain times characterized by high risk issues, engage stakeholders in a dialogue-centered risk communication process. Communicate, communicate and communicate!** Economies and APEC as an organization should consider developing strategic communication strategies vis-à-vis food security issues that incorporate risk communication.

Challenges to Achieving Food Security in APEC

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This issues paper examines several challenges to food security currently facing the APEC region and includes recommendations on the way forward for APEC to address these challenges. The issues analyzed in the paper include (1) the global and regional trends in agricultural markets, including the drivers of rising demand and the challenges in increasing agricultural production as well as the implications on food prices; (2) agricultural trade barriers facing the APEC members; (3) the magnitude and underlying causes of global food losses and food waste; and (4) the challenges in increasing agricultural investments in the APEC region.

Findings

Trends in agricultural markets and the implications for food security

- The World Bank's global Food Price Index reached an historical high in July 2012, led by high prices for corn, soybeans, and wheat. Although anticipated supply shortages caused by adverse weather conditions in some major global producers and exporters of grains were among the main causes of the recent price spike, the three large swings in agricultural commodity prices experienced in just the past five years is a symptom of structural imbalance in global demand and supply.
- There has been an upward shift in global demand for agricultural products due to rapid income growth resulting in diet diversification and the increased use of agricultural products for non-food purposes such as biofuels. Indeed, the use of agricultural products for non-food purposes has surpassed the demand from food consumption for some products. Animal feed and industrial uses accounted for 74% and 22% of global production of primary oil crops and vegetable oils, respectively, in 1961. By 2008, these ratios had risen to 84% for primary oil crops and 43% for vegetable oils.
- The capacity of production to expand quickly in response to the shift in demand is limited given resource constraints and increased cycles of adverse weather conditions. This has led farmers to devote more resources to produce commodities with higher growth potential – e.g., energy crops such as corn and soybeans – at the expense of traditional staple food crops such as wheat and rice.
- The trends in agricultural markets in the APEC region mirror the global trends, but are occurring at a relatively more accelerated rate. Economic growth, including income growth, has been relatively stronger among developing APEC economies in comparison with the rest of the developing world. This has led to a dramatic shift of diet in the region towards more livestock and dairy products. The APEC region has also quickly emerged as the world's leading producer of biofuels, with its total share of global production increasing from 35% in 2000 to more than 60% in 2010.
- Unlike other regions, land expansion in the APEC region is restricted. Since 1992, around 4% of the region's agricultural land (86 million hectares) has been allocated for other uses, while agricultural land has expanded by 5% in Africa and by 6% in South America. With the intensification of energy and feed crops, harvested areas for other staple food crops such as wheat and rice have been growing more slowly, even contracting in some cases. Shrinking land resources, in combination with a slowdown in yield growth, have resulted in an overall slowdown in production growth for these crops. Wheat production in APEC actually stagnated during 2000-2007.

- The tight global agricultural market, stemming from the inability of production to grow fast enough to meet increasing and competing demands, has been reflected in the highly volatile prices for agricultural products witnessed recently. Record food prices, against a backdrop of low income growth due to the Global Financial Crisis in 2008 and its continuing effects in 2011, have transformed into food crises in many cities around the world. An estimated 130-150 million people were pushed into poverty as a direct result of the 2008 food crisis alone. Another 44 million were added in the 2011 episode.
- Domestic food inflation reached double digits in many developing APEC economies in 2008. Of particular concern is that food inflation tends to be higher in those economies where households spend a greater proportion of total expenditure on food. For households living below the poverty line, food-related spending accounts for up to 70% of total expenditure.

Addressing the challenges to food security: towards a more sustainable future

- The global population will reach an estimated 9.3 billion in 2050, adding more than 2.3 billion people on the demand side for food. Income growth resulting in diet diversification as well as increased industrial uses of agricultural products will also become more prominent drivers of increasing demand for agricultural products towards 2050.
- On the supply side, natural resource constraints will become more stringent in the coming years, adversely impacting crop yields as well as the capacity to expand production. Agricultural land per capita is projected to decline from its current level of 0.22 hectares in use per person to 0.18 in 2050, while the proportion of the population living in urban areas is forecast to rise from 50% to 70% by 2050. Increased cycles of adverse weather conditions associated with climate change will cause yield declines for some important staple food crops, including rice and wheat. Developing economies in lower latitudes will be among the hardest hit.
- Improving food security requires comprehensive and collaborative responses across a wide range of challenges: barriers to agricultural trade; vast amounts of food losses and waste; declining agricultural investment growth in developed economies; and severe under-investment in the agricultural sector in developing economies.

Promote agricultural trade

- Open trade in agricultural products helps to mitigate price volatility as well as improve agricultural competitiveness. However, many APEC members have adjusted their food security policies towards self-sufficiency in response to the recent food price spikes, particularly those economies that are net food importers. Agricultural liberalization has also proved to be one of the more contentious topics in multilateral trade negotiations at the WTO.
- In 2011, agricultural trade accounted for just 8.3% of the value of global goods trade. For the APEC region, agricultural exports as a share of total goods export value was only 5.8% in 2011. Intra-APEC trade in agricultural products, valued at USD 325 billion in 2011, comprised 68% of total agricultural export value from APEC members.
- Liberalization of agricultural trade in the APEC region has been slow in comparison with non-agricultural goods trade. The average MFN applied tariff rate on agricultural products was 12.3% in 2011, in comparison with a 4.7% rate on non-agricultural products. APEC members are also active in using non-tariff barriers such as technical barriers to trade (TBT) and sanitary and phytosanitary (SPS) measures. Between 1995 and 2011, 30% of the 317 specific trade concerns raised against a TBT measure were related to an agricultural product, nearly half of which named an APEC economy as the maintaining member. An APEC economy was also named as a maintaining member in almost half of the 312 SPS concerns raised between 1995 and 2010, nearly all of which concerned an agricultural product.

- International harmonization of standards and mutual recognition will help to ensure that TBT and SPS measures are applied transparently and fairly, while capacity building can help to reduce the costs of compliance for exporters in developing economies.

Reduce food losses and waste

- In the short- to medium-term, reducing food losses and waste can be one of the most effective strategies to improve food availability and preserve critical natural resources. Unfortunately, it is very difficult to measure exactly how much food is lost or wasted, especially as it moves along the supply chain, and data on food losses are extremely limited. It is vital that coordinated research be done in this area in order to better assess the problem.
- Despite the data limitations, an estimated one-third of food produced globally is lost or wasted along the supply chain, amounting to around 1.3 billion tons per year. Primary production accounts for the highest amount of losses globally with an estimated 10% of the total supply quantity lost at this stage of the food supply chain.
- Although approximately 30% of food is lost in both developed and developing economies, the losses occur at different points along the supply chain. Food losses are larger in low-income economies at the beginning of the food supply chain – from primary production through the post-harvest segments of handling, storage, and transportation – mainly due to insufficient infrastructure, particularly inadequate storage facilities, as well as a lack of technical and managerial skills on the part of the farmers. In medium- and high-income economies, a significant amount of food is lost during consumption: around 222 million tons of food per year is wasted in these economies. Industrialized economies must strive to raise awareness of this issue.

Increase investments in agricultural infrastructure and R&D

- Agricultural capital stock is essential in the expansion of production and in reducing food losses. Total agricultural capital stock in the APEC region grew by just 3.1% in real terms between 1992 and 2007, representing a meager growth rate of 0.2% per year. Nearly all of the growth in agricultural capital formation in the APEC region came from developing APEC economies, with industrialized and developing APEC members accounting for equal amounts of the regional total of USD 2.4 trillion in 2007. However, there is a wide disparity in agricultural capital stock per agricultural worker between the two groups – USD 1,822 per worker in developing APEC economies compared with USD 219,900 in industrialized APEC economies, highlighting the urgent need for investment in developing APEC economies.
- In addition, research has demonstrated the important role of R&D spending in enabling technological advances that increase productivity growth. Unfortunately, the current trends in global agricultural R&D expenditure underscore some serious concerns. Publicly funded agricultural research projects have been growing at a slower pace since the 1990s in industrialized APEC economies. Various studies have linked this slower pace of R&D spending to slower growth in agricultural productivity in these economies. This slowdown in research spending in many developed economies that were traditionally the powerhouses of generating new and improved technologies, inputs, and knowledge also means that developing economies can no longer rely on the international spillovers of technological progress to the same extent as before.

- Encouragingly, developing economies have progressively built up their research capacity, with 2008 marking the first time when public R&D spending by developing economies was at par with developed economies. However, despite the enormous progress that has been made, many developing economies are still in the early stages of building agricultural research capacity. The research intensity ratio of developing economies – as measured by the ratio of R&D spending to total agricultural output – was USD 0.54 in 2008, compared with a ratio of USD 3.07 in developed economies. In addition, private R&D investment plays a very minor role in developing economies, accounting for less than 6% of the total research funding in these economies. In contrast, private R&D spending in developed economies has surpassed public funding, contributing 55% of total R&D expenditure in these economies in 2000.
- An estimated USD 83 billion per year of additional investments in food, agriculture and rural development is required for food production to meet the expected growth in demand by 2050. Given their typically large scale and significant outlays of capital, usually taking many years to realize, agricultural investments are often carried out by the public sector. However, due to competing demand for funds, the domestic public sector alone cannot sufficiently address all the investment needs.
- For many developing economies, official development assistance (ODA) has also been an important source of funding. However, aid commitments to the agricultural and fisheries sectors in developing APEC economies have fallen by an annual rate of 4% in real terms between 1995-1996 and 2009-2010. The strong economic performance of many developing APEC economies in recent years indicates that ODA will no longer be a major source of funding in the region.
- It is therefore necessary for APEC members to promote agricultural investment from the private sector, including FDI, which has been shown to increase the amount of capital available and raise the technological level in an economy. To date, primary and processed agriculture have not been the most attractive sectors for FDI, accounting for just 5.4% of global FDI inflows during 2008-2010. Of this amount, over 90% went to processed agriculture, indicating that much of the FDI is concentrated in the downstream agricultural activities of processing, manufacturing, and retail trade.
- In addition, the OECD's FDI Regulatory Restrictiveness Index reveals that investment barriers are generally higher in the primary agricultural and fisheries sectors than in other sectors for many APEC economies, with some having measures in place that fully restrict FDI in these sectors. The key to increasing private agricultural investment also lies in strategically improving the business environment by creating an attractive and viable investment climate that reduces the risks to investors that are typically associated with agricultural investments. In developing economies, this requires providing a higher level of investor protection, strengthening intellectual property rights, and facilitating better access to credit.

Recommendations

APEC has a unique opportunity to boost urgently needed agricultural investments through its recently launched Policy Partnership on Food Security (PPFS); expand capacity building and knowledge sharing efforts to specifically address the food security challenges discussed in this paper; continue to work towards liberalization and facilitation of trade in agricultural products and investment in agricultural sectors; consider how addressing the various food security issues examined in this paper could be aligned with the work being done across all APEC fora; and develop and strengthen partnerships with other organizations working in the area of food security to avoid duplication and to address the many inter-related food security challenges.





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