

1. Introduction

Rationale for Government Intervention and the Need for Regulatory Reform

Competitive markets help maximize the benefits of resource use across society by providing a mechanism to allocate these resources to the highest value user. But markets can fail to achieve this outcome due to market failures such as public goods, externalities or increasing returns to scale. These have provided a rationale for government intervention in markets. Regulations attempt to alter the allocation of resources that might otherwise not have occurred, to achieve declared welfare objectives.¹ The use of regulations as an instrument of achieving economic and social policy objectives has increased dramatically since the 1940s making regulations ubiquitous.²

However, regulatory regimes, if poorly designed, may also be costly. It may negatively affect innovation;³ it may inadvertently affect market entry, exit, or operation;⁴ and can rapidly become obsolete due to the evolution of economic circumstances. Perhaps most fundamentally, the support for regulatory intervention rests on the implicit assumption that government failure does not occur, and that if it does occur, then it does not outweigh the costs of the market failure to be remedied, an assumption that has lost credibility in the past few decades.⁵ Stigler⁶ in particular brought early attention to the possibility that regulations might not be driven by the need to enhance economic efficiency but rather to meet narrower ends of special interest groups and “captured” regulatory agencies.

The cost of government intervention in markets became more evident after the downturn of the 1970s and led some economies to start rethinking the role of regulation in the market place. This initially focused on eliminating unnecessary regulation or “red tape” (deregulation). The emphasis now has gradually shifted to regulatory reform. Best practice approaches to regulation then evolved into a more systematic approach to regulatory policy. They moved away from one-off reform efforts toward an on-going process of regulatory assessment and review, including through benefit/cost analysis and stakeholder engagement.

Regulatory reform has long been part of APEC’s agenda given its mandate to facilitate trade and promote efficient economies. With the decline in tariffs in the APEC region, the emphasis shifted to eliminating the structural and regulatory barriers that constrain cross-border trade and investments. APEC is working toward eliminating these barriers by promoting structural reform, which improves

¹The Organisation for Economic Co-operation and Development (OECD) (2010) defines a regulation as ‘any instrument by which governments, their subsidiary bodies, and supranational bodies (such as the EU or the WTO) set requirements on citizens and businesses that have legal force. The term may thus encompass a wide range of instruments: from primary laws and secondary regulations to implement primary laws, subordinate rules, administrative formalities and decisions that give effect to higher-level regulations (for example, the allocation of permits), and standards.

² Jacobs, S., P. Ladegaard (2008). “Regulatory Governance in Developing Economies,” Better Regulation for Growth (BRG) Program, Investment Climate Advisory Services, World Bank Group.

³ Organisation of Economic Cooperation and Development (OECD) (1997), “The OECD Report on Regulatory Reform: Synthesis,” OECD, Paris.

⁴ APEC (2009), “APEC Economic Policy Report 2009,” APEC Economic Committee.

⁵ Shleifer, A. (2010), “Efficient Regulation,” Working Paper 15651, NBER Working Paper Series.

⁶ Stigler, G. J. (1971), “The Theory of Economic Regulation,” *Bell Journal of Economics and Management Science*, 2(1): 3-21.

the quality of institutions, regulations, and governance to support well-functioning markets and reduce the cost of doing business. In 2004, APEC Leaders signaled their commitment to structural reform in APEC when they endorsed an ambitious work program called the Leaders' Agenda to Implement Structural Reform (LAISR). Under this program regulatory reform is one of the five areas for structural reform.⁷

The APEC Economic Committee has been championing the cause for regulatory reform across APEC economies. Regulatory reform, as well as regulatory convergence and cooperation are issues expected to continue being part of the APEC agenda for subsequent years.⁸ Efforts in regulatory reform will have a direct incidence in the implementation of initiatives such as the APEC Growth Strategy and the APEC New Strategy on Structural Reform.

The Regulatory Reform – Case Studies on Green Investments paper will develop case studies on the regulatory policies of three APEC-Industrialized (Australia, Japan, and the United States (US)) and three APEC-developing economies (Indonesia, Philippines, and Thailand) with regard to their experiences in formulating and implementing policies to promote certain Renewable Energy (RE) technologies (biofuels, geothermal, solar photovoltaics (PVs)) and improve Energy Efficiency (EE) in some sectors (buildings, household appliances, transportation). Essentially, the overarching theme of the analysis will be to bring to the fore lessons in regulatory policy that can inform the evolution of regulatory practices in other economies.

Assessment Criteria for the Case Studies

The potential benefits of best practice regulatory reforms, which include enhanced economic growth, better environmental sustainability, strengthening the rule of law, and other societal goals, can be significant. It is also recognized that achievement of the benefits requires effective supporting institutions including high level political commitment to regulatory reform, effective independent regulators and a mechanism to effectively coordinate activities between different levels of government.⁹ Many economies and multilateral organizations such as the Organisation for Economic Co-operation and Development (OECD) and APEC have developed best practice regulatory guides.¹⁰ These guides highlight similar key themes. They typically stress the importance of:

- The need to clearly define the policy problem and the rationale for government intervention.
- Consideration of a range of policy options, including a do-nothing approach.
- Assessing the full range of social costs and benefits of the proposed policy options through a regulatory impact assessment or RIA (i.e. benefit/cost analysis).

⁷ In addition to regulatory reform, competition policy, public sector governance, corporate governance, and strengthening economic and legal infrastructure are areas for structural reform.

⁸ APEC (2011), "2011 APEC Ministerial Meeting," Ministerial Statements, Honolulu, Hawaii.

⁹ This discussion is based on Meloni (2010) and OECD (2011).

¹⁰ A list of regulatory guides include, from APEC, Good Practice Guide to Regulatory Reform, APEC Economic Policy Report 2009, APEC Economic Policy Report, APEC-OECD Integrated Checklist on Regulatory Reform, The Impacts and Benefits of Structural Reforms in Transport, Energy and Telecommunications Sectors. From OECD, The OECD Report on Regulatory Reform: Synthesis, Draft OECD Recommendation on Regulatory Policy and Governance and World Energy Council, *Energy Efficiency Policies around the World: Review and Evaluation*.

- Transparency and public consultation that help governments collect more information and resources, increase compliance and reduce the risk of conflict.¹¹ These also enhance the quality of rules, strengthen compliance, and reduce enforcement costs for both government and citizens subject to rules.
- Alignment of policies across government agencies and between different levels of government. This will avoid the potential for overlapping and potentially conflicting objectives.
- The need for regulatory review to ensure the on-going efficacy of existing regulations.

This paper will assess the range of policies adopted by selected APEC economies to promote EE and RE investments (see Table 1.1) to support three broad policy targets: energy efficiency, energy security, and environmental sustainability. The assessment is based on key criteria that determine two fundamental attributes necessary for any successful regulatory intervention: (1) economic efficiency and effectiveness and (2) administrative and political viability. The basic test of economic efficiency is *cost-benefit analysis* which is also the basis of conducting regulatory impact assessments. The criterion of *promotion* (which seeks to ascertain the extent to which a policy has helped increase the uptake of energy efficiency and renewable energy technologies) is subsumed under the criterion of cost-benefit analysis as the uptake will have its cost and benefits that would need to be accounted for. *Scientific integrity* is of course requisite to any attempt at fairly measuring costs and benefits. This criterion will assess if government policies are based on good science. The *flexibility* of administrative regimes to change with altered circumstances or to reform is often critical for continued efficacy of the regime. This criterion will assess if regulatory instruments are flexible enough to automatically respond to the changing environment that stakeholders face or if processes are in place to let governments make adjustments as necessary.

The administrative and political viability of government support programs depends critically on two criteria: *transparency* and *alignment*. The *transparency* criterion measures the extent to which governments have provided an opportunity for stakeholders such as manufacturers, energy suppliers, non-profit organizations and citizens to provide input prior to enacting of regulations. This criterion also assesses if policy details can be easily accessed by the public. Most importantly, transparency makes government failure outcomes less likely, as special interests cannot openly capture regulatory agencies and bias regulatory outcomes. Any government initiative to support and promote investments will require *alignment*. This requires an assessment of whether governments have taken steps to harmonize, simplify and coordinate policies across departments and agencies and between different levels of government.

¹¹ OECD (2011), “Draft OECD Recommendation on Regulatory Policy and Governance,” OECD, Paris.

Table 1.1 Case studies to be undertaken

| | <i>Renewable Energy</i> | | | <i>Energy Efficiency</i> | | |
|--------------------------------------|------------------------------|-------------------|-----------------|---|---|--|
| | Conventional Biofuels | Geothermal | Solar PV | Buildings (Commercial and Residential) | Transportation (Public and Private Sector) | Household Appliances (including lighting) |
| <i>APEC-Industrialized Economies</i> | | | | | | |
| Australia | | × | × | | | |
| Japan | | | | × | | × |
| US | × | | | | × | |
| <i>APEC-Developing Economies</i> | | | | | | |
| Indonesia | × | × | | | | |
| Philippines | | | | | × | × |
| Thailand | | | × | × | | |