International Regulatory Co-operation and Trade

UNDERSTANDING THE TRADE COSTS OF REGULATORY DIVERGENCE AND THE REMEDIES

OECD

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BETTER POLICIES FOR BETTER LIVES

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Foreword

Through decades of multilateral, regional and unilateral efforts, traditional trade barriers such as tariffs have declined significantly. Regulatory heterogeneity is increasingly perceived as a non-negligible source of trade costs. Recent international trade negotiations therefore put an emphasis on promoting greater interoperability for businesses operating in countries with varying regulatory requirements.

In parallel, efforts to improve regulatory quality through the consistent application of good regulatory practices have intensified across countries, as illustrated by the adoption of the *Recommendation on Regulatory Policy and Governance* by OECD countries in 2012. The Recommendation recognises the need to establish institutions, governance and processes to ensure that regulations are fit for purpose and do not impose unnecessary costs on society. In this perspective, while diverging regulation may reflect different democratic and public policy objectives, it may also stem from a lack of consideration for the international regulatory environment. In this case, it is likely that some of the trade costs of regulatory divergence are avoidable without compromising the quality of regulatory protection.

Despite this potential, the policy-making debate shows that our knowledge of regulatory divergences, their impacts on trade costs and the potential international regulatory co-operation (IRC) approaches to address them remains limited. Drawing on the expertise of the regulatory policy and trade policy communities, this report provides policy makers with an understanding of the trade costs of regulatory divergence and the IRC strategies for lowering these costs while maintaining public policy objectives and respecting democratic choices.

This report synthesises work carried out by the OECD Regulatory Policy Committee and the OECD Trade Committee on understanding the trade costs of regulatory differences and addressing them through international regulatory co-operation. It builds on lessons learnt from the analytical work and accumulated experiences of OECD countries to initiate a list of considerations to reduce trade costs through IRC. While the report focuses narrowly on trade-related costs and IRC approaches, it contributes

to broader OECD work aimed at building greater understanding of various approaches to IRC regardless of their objectives, including regulatory effectiveness, administrative efficiency or economic gains.

The preparation of this report was led by Céline Kauffmann and involved inputs from a team of analysts from the Regulatory Policy and the Policies in Trade and Agriculture Divisions, including Robert Basedow, Véronique Bastien, Barbara Fliess and Martin Von Lampe. The work was carried out under the direction of Nick Malyshev, Head of the Regulatory Policy Division and Frank Van Tongeren, Head the Trade and Agriculture Division and benefited from the overall leadership of Rolf Alter, Director for Public Governance and Ken Ash, Director for Trade and Agriculture. It benefited from two rounds of comments from delegates from the Regulatory Policy Committee and the Trade Committee. The report was prepared for publication by Jennifer Stein, with editorial assistance from Andrea Uhrhammer and Catherine Bremer. The work was supported by Central Priority Funds.

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Acronyms and abbreviations

CABs	Conformity assessment bodies
CETA	Comprehensive Economic and Trade Agreement (between Canada and the European Union)
FTA	Free trade agreement
GRPs	Good regulatory practices
GVCs	Global value chains
IAF	International Accreditation Forum
ILAC	International Laboratory Accreditation Cooperation
IRC	International regulatory co-operation
LAC	Latin American Countries
MLAs	Multilateral Recognition Arrangements (Non-governmental frameworks)
MR	Mutual recognition
MRL	Maximum residue level
NTMs	Non-tariff measures
RIA	Regulatory impact assessment
RPC	Regulatory Policy Committee
RTAs	Regional trade agreements
SDoC	Suppliers' declarations of conformity
SPS	Sanitary and Phytosanitary
STCs	Specific trade concerns
STRI	Services Trade Restrictiveness Index
TBT	Technical Barriers to Trade
TFA	Trade Facilitation Agreement

Executive summary

Regulatory differences across jurisdictions can be costly for traders. They may involve the costs of: i) gathering information on regulatory requirements in target markets, ii) adjusting the specification of goods and services to comply with different regulatory requirements; and iii) undertaking various conformity assessment procedures to demonstrate compliance. While these costs may reflect variations in domestic conditions and preferences, they may also be the result of rule-making processes working in isolation without consideration for the international environment. In this context, it is likely that some of the trade costs of regulatory divergence are avoidable without compromising the quality of regulatory protection.

Information gathering typically imposes a fixed cost on traders. It can be an obstacle to market entry, in particular for small and medium-sized enterprises. Specification and conformity assessment costs have both fixed and variable components, depending on the sectors and type of regulation in place. When the variable cost component is dominant, it can have the same effect as a tariff. Ultimately, these costs translate into higher prices and less choice for consumers.

The trade costs of regulatory divergence are largely unknown. Evidence suggests that they vary by sector. For goods, specification and conformity assessment costs tend to be the most relevant. In the service sectors regulatory heterogeneity, as measured by differences in the OECD Service Trade Restrictiveness Index, may generate costs equivalent to tariffs of between 20% and 75%. These trade costs are likely to matter more between countries with low regulatory barriers to trade. In highly restricted markets, regulatory heterogeneity in itself will not add much to trade costs.

Assessing the trade costs of regulatory divergence can usefully inform the rule-making process. There is evidence that regulators in OECD countries identify some trade effects of domestic regulation through regulatory impact assessments (RIA). Yet, trade costs are one of the many elements assessed. Methodological difficulties, lack of resources, *inter alia,* also limit the degree to which trade costs are reflected in regulatory

processes. Greater knowledge of the sources and magnitude of trade costs would help regulators focus their efforts. Better definition of threshold and proportionality rules, as well as greater co-ordination and information sharing across ministries (including trade officials), would facilitate the assessment of trade impacts without overloading the RIA process where appropriate. Finally, engaging a wider range of stakeholders, both domestic and foreign, and systematically using *ex post* evaluation could provide information about the implications of regulatory measures.

Policy makers can draw from a broad range of approaches to address the trade costs of regulatory divergence, including unilateral, bilateral and multilateral. Each approach has specific benefits, costs and challenges. The desirable degree of co-ordination will depend on the balance between trade costs and the gains and costs of the regulatory change involved. Since IRC tends to be voluntary, its development and outcome will largely be determined by the common interests of partners and the incentives to co-operate. In this context, trade objectives may provide strong economic motivations but will not be the only consideration.

Unilaterally, countries can pursue regulatory quality through the systematic use of RIAs, stakeholder engagement and *ex post* evaluation. This approach promotes transparency and regulatory coherence, which should help to lower information costs directly, as well as specification and conformity assessment costs in the longer run. Good regulatory practices (GRPs) also inspire confidence in the quality of the regulatory framework and can support greater exchange among regulators based on a better understanding of impacts of regulatory measures. They can thus underpin more ambitious IRC approaches. However, these practices do not systematically reduce trade frictions and may need to be complemented by more active and targeted co-operation approaches where desired.

The adoption of international standards in national frameworks promotes regulatory convergence globally. It helps lower specification costs throughout the value chain and conformity assessment costs when conformity assessment processes converge to international standards. Instead of adjusting goods and services to individual markets, traders can specify their products in line with international requirements. Despite their potential, the use of international standards remains limited. Regulators could consider their adoption more systematically when developing and updating domestic regulation. However, regulators need the assurance that international standards are of high quality and will serve the public interest in their own jurisdiction.

Countries can reduce trade costs through a variety of cross-border recognition frameworks (both governmental and non-governmental), which streamline the administrative process for market admission. They can help lower conformity assessment costs, which are particularly cumbersome in complex value chains. Instead of going through country-specific conformity assessment procedures, traders may rely on the recognition of test results and assessment bodies. Evidence shows that mutual recognition agreements between governments can be costly to develop and maintain, so a clear trade case has to be made. Their success depends on confidence in the respective regulatory and conformity assessment infrastructure of partners. They are therefore more likely to succeed where regulatory systems are relatively similar and GRP support their mutual understanding, for sectors where science is relatively undisputed and where an international standard provides for a common reference.

Regional trade agreements (RTAs) provide a vehicle for IRC through: i) broad provisions promoting convergence to international standards, mutual recognition or transparency, ii) sector-specific provisions and iii) horizontal chapters encouraging countries to adopt GRPs and information exchange. However, the "best endeavour" language and non-binding nature of these dispositions coupled with the absence of monitoring mechanisms, limit their implementation. Given the multiplicity of RTAs, there is also a risk of regional fragmentation.

The World Trade Organization offers a multilateral transparency system for regulations affecting trade in goods. It provides a notification system for regulatory measures with potentially significant trade effects as well as for agreements on technical regulations, standards or conformity assessment procedures between members. It provides a platform for countries to learn about each other's regulatory systems, discuss draft regulation affecting international trade and collaborate bilaterally and multilaterally to achieve less trade-restrictive regulations. As such, it complements domestic GRPs and helps settle concerns before they reach WTO formal dispute settlement.

Chapter 1

Identifying and evaluating the trade costs of regulatory heterogeneity

This chapter provides an analytical framework to understand the trade costs of regulatory heterogeneity. It reviews the existing evidence on these costs and discusses how this evidence may inform the development and revision of regulations.

Introduction: Why is it important to understand the trade costs of regulatory heterogeneity?

The trade costs of regulatory heterogeneity can be defined as the costs accruing to traders of goods and services from differences in regulations across jurisdictions. Such costs are generally borne by producers or exporters in the first place and may generate important barriers to trade.

Some trade costs are avoidable. Regulatory heterogeneity is not necessarily the expression of diverging public policy objectives. It may reflect regulatory path dependence, complex regulatory governance involving multiple layers of government or a lack of co-ordination and awareness among regulators for the international regulatory environment. Avoidable trade costs arising from regulatory heterogeneity hurt both exporting and importing countries. Hence they need to be accounted for when regulations are designed or reviewed. Exporting firms see the profitability of sales in the foreign market reduced and hence reduce export supply or avoid shipment altogether. Consumers in the importing country – both final and intermediate users of the product in question – face reduced choice and higher prices, thus declining their welfare.

Regulatory heterogeneity may impose "fixed" and "variable" trade costs. Fixed trade costs are investments, which are largely independent of the product volume to be traded. They may be linked to finding and processing information about the regulations in the destination market, the need for a separate production line, for specific licences or degrees, or for a commercial presence to be established in the destination market. Fixed costs do not (directly) affect the marginal costs of traded products, but need to be covered by sales large enough to amortise the investment. They therefore represent a barrier to market entry, particularly for small and medium-sized enterprises (SMEs) with smaller potential trade volumes. In consequence, competition and choice of imported products is reduced, and prices on the import market are increased, hurting consumers' (including industrial users') welfare.

Variable trade costs, in turn, vary in function of the trade volume. One may speak of variable trade costs, when regulations require the use of specific and potentially more expensive inputs in the production process. This is often the case when the difference in rules is vertical, e.g. due to stricter requirements (such as maximum residue levels of pesticides in agriculture trade), or for prohibitions or obligations for certain inputs. Variable trade costs increase the marginal costs of traded products and hence their import price, making them less competitive on the destination market. Variable trade costs are thus equivalent to tariffs in their effects on

import prices (although this comparison ignores the potential positive effects of regulatory outcomes, including on import demand). The higher prices protect domestic producers but also increase prices (therefore reducing welfare) of intermediary consumers within global value chains as well as of end consumers.

From a policy making perspective the costs that regulatory heterogeneity imposes on traders cannot be considered in isolation. These costs provide only a partial picture for several reasons. First, any reform undertaken to address these costs will lead to a change in status quo that will in turn have implications – both positive and negative – for a variety of stakeholders, including but not limited to traders (other parties include governments, citizens, employees). For example, administering and enforcing regulation involves infrastructure and resources that are likely to be impacted by the efforts to address regulatory divergence. Such activities may include, for instance, the monitoring and enforcement of regulations, including market surveillance aiming to identify non-compliant and potentially harmful products. Contrary to the trade costs defined above, these costs are typically "incurred by government in administering and enforcing the regulatory requirements" (OECD, 2014), and as such are beyond the scope of this report (Box 1.1).

Beyond the broader consideration of cost allocation that any change in status quo would generate, costs need to be balanced against the benefits of regulation to usefully inform decision-making on the need for reform. As emphasised in the *2012 Recommendation of the Council on Regulatory Policy and Governance* (OECD, 2012), regulators should "adopt impact assessment practices …. [that] include benefit cost analyses that consider the welfare impacts of regulation taking into account economic, social and environmental impacts including the distributional effects over time, identifying who is likely to benefit and who is likely to bear costs". The *2015 Regulatory Policy Outlook* (OECD, 2015a) highlights the fact that OECD countries tend to use their RIA "as a least cost appraisal exercise" and that a more systematic comparison of benefits and costs would improve the utilisation of RIA.

In this perspective, while filling an important knowledge gap, the analysis provided in this report is partial – it focuses mainly on the trade costs of regulatory divergence. It has to be understood as a building block in a broader OECD work aimed at building greater understanding of the merits and challenges of various approaches to IRC.

The three types of trade costs of regulatory heterogeneity

While different sectors and countries may experience a variety of costs, ultimately, three main categories of heterogeneity-related and behind-the-border trade costs can be distinguished: information costs, specification costs and conformity assessment costs. Box 1.1 compares this terminology with the terms used in the OECD Regulatory Compliance Cost Assessment Guidance (OECD, 2014). It is worth noting that this typology is equally applicable for trade in goods and in services. It is however expected that the relative importance of different types of trade costs will vary between the two (von Lampe et al., 2016).

Information costs

Information costs accrue to firms for identifying, gathering and processing information on the regulatory requirements for offering products on the destination market that are different from or additional to those applying on the home market. The magnitude of information costs depends on the transparency and heterogeneity of countries' regulatory regimes. The more opaque and different the regulatory regimes are, the higher are the information costs incurred by traders.

Specification costs

Specification costs accrue to firms selling on a regulated market for specifying their product, production process or labelling to comply with regulation different from that prevailing in the home market ("product rules"). Such costs are directly linked to the process of production or supply of service in accordance with the requirements of a given market. Costs may include additional labour and input costs, or costs related to a lack of economies of scale. They may also take the form of equity restrictions, management restrictions or the necessity to maintain a permanent establishment in the regulated market ("firm rules").

It is expected that specification costs increase as product rules in the importing country diverge more significantly from those in the exporting country. Regulations may differ across jurisdictions vertically and horizontally. Vertical heterogeneity refers to regulation of different stringency. Maximum residue level (MRL) for a specific pesticide may for instance differ across countries. Horizontal heterogeneity refers to different compliance requirements without such a stringency connotation, such as diverging technical standards in a given domain.

Box 1.1. **Concordance of costs terminology**

The *OECD Regulatory Compliance Cost Assessment Guidance* (2014) provides terminology to analyse and to assess the costs "incurred by businesses or other parties at whom regulation may be targeted in undertaking actions necessary to comply with the regulatory requirements, as well as the costs to government of regulatory administration and enforcement" (OECD, 2014). It does not focus on trade costs tied to regulatory heterogeneity. However, it captures the regulatory costs that all traders face in the different jurisdictions within which they operate, based on language commonly used by regulators. It therefore provides a useful comparison point for the terminology on costs incurred by traders under discussion.

According to OECD (2014), compliance costs comprise three sub-categories of costs: administrative burdens; substantive compliance costs; and administration and enforcement costs. "Information costs" as discussed in this report, can be seen as a subset of implementation costs, a sub-category of substantive compliance costs. As defined in OECD (2014), implementation costs refer to the costs that "regulated entities incur in familiarising themselves with new or amended regulatory compliance obligations, developing compliance strategies and allocating responsibilities for completing compliance-related tasks". "Specification costs" are equivalent to substantive compliance costs, excluding the above-mentioned information costs, i.e. they are the direct costs of complying with a regulation. They involve the direct labour costs, overhead costs, equipment costs, material costs and external services costs of complying with a regulatory measure. Finally, "conformity assessment costs" partly overlap with the concept of "administrative burdens" used in OECD (2014), i.e. "the costs of complying with information obligations stemming from government regulation". However, the costs incurred by the traders of acquiring the necessary certification and other quality control proof is not explicitly mentioned.

In addition, OECD (2014) defines "administration and enforcement costs", i.e. "the costs incurred by government in administering and enforcing the regulatory requirements".

Source: OECD (2014), *OECD Regulatory Compliance Cost Assessment Guidance*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264209657-en; von Lampe et al. (2016), "Trade-Related International Regulatory Co-Operation – A Theoretical Framework",*OECD Trade Policy Papers*, No. 195, OECD Publishing, Paris, http://dx.doi.org/10.1787/3fbf60b1-en.

Conformity assessment costs

Conformity assessment costs accrue to firms for verifying and demonstrating to the authorities in the destination country that their products, production processes or services actually comply not only with home market regulations but also with the regulations of the destination

market in the importing country. Conformity assessment costs may stem from diverging assessment methods such as diverging laboratory testing, certification, inspection or audit procedures, resulting in their unnecessary duplication causing an additional time delays as well as the need for staff, capital, inputs or fees. Conformity assessment may also stem from the importing country's conformity assessment system which may restrict the exporters' choice on where and by whom testing and certification are to be undertaken. Restrictive conformity assessment systems can add costs for producers and traders as tests and certificates established at home may need to be duplicated in the destination market irrespective of substantial differences in the specification of products or assessment methods.

Conformity assessment costs can be related to two broad elements in conformity assessment requirements (von Lampe et al., 2016). First, where countries apply different methods (i.e., the "what" in conformity assessment procedures, such as laboratory testing methods, sampling or inspections), avoidable costs may arise as firms need to have products tested for a second time using the importing country's method, when these products have already been tested based on the exporter's method, even if these tests are to provide evidence on the same product characteristics. Second, rigidities related to the 'who' in conformity assessment procedures may require firms to produce test results and certificates established by conformity assessment bodies within the importing country. In this case, costs arise as certificates established in the firms' home country do not give access to the destination market and tests and certificates need to be duplicated. In addition, testing a product in the destination market requires shipping samples to the importing country for doing so, involving costs in terms of expenses and time-to-market delays.

Other trade costs

In addition to the three broad categories detailed above, other trade costs matter particularly in the context of customs clearance. Such at-the-border costs include multiple forms to be filled out and other administrative procedures before clearing customs, fees and charges along with indirect costs such as waiting time at the border due to procedural delays, storage and inventory costs. These costs can be reduced through single-window projects, the work of the World Customs Organisation and other initiatives at bilateral or plurilateral level. The WTO Trade Facilitation Agreement adopted in 2014 expressly aims to expedite the movement, release and clearance of goods across borders and reduce the costs of clearing customs. The present report, however, focusses on behind-the-border trade costs and options for reducing them and does not discuss options for improved customs procedures in further detail.

Assessing the evidence on trade costs

While trade policy-makers and economists assume that regulatory heterogeneity – often unnecessarily – hinders international trade, hard evidence on the magnitude of the phenomenon across countries and sectors is scarce. Academic research and OECD work show that regulatory heterogeneity imposes trade costs that vary.

Regulatory heterogeneity may impose significant costs on trade

Evidence generally backs the widely-held assumption that regulatory heterogeneity results in trade costs. In the services sectors, OECD analysis (Nordas, 2016) suggests that regulatory heterogeneity (as defined in Box 1.2) may impose trade costs equivalent to tariffs of 20% to 75% depending on the assessed economic sectors and countries. The Index ranges from the value zero (no heterogeneity) to one (completely different regulation). On average, an increase in the index of services heterogeneity by 0.05 points reduces bilateral trade in services by about 8%. The trade effects of regulatory heterogeneity are found to strongly depend on the restrictiveness of service regulations: where regulations strongly restrict access of foreign firms to service markets (say, where the STRI is greater than 0.4), regulatory differences between the exporting and the importing country tend to add relatively little to the overall barrier, whereas the trade effect of regulatory heterogeneity may be much higher in markets to which access is little restricted (say where the STRI is below 0.1).

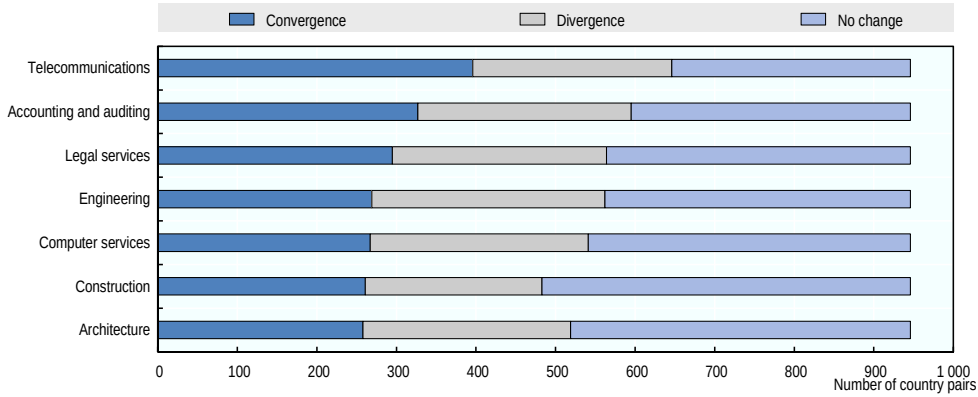
Box 1.2. **Regulatory heterogeneity in the Services Trade Restrictiveness Index**

OECD work on the Services Trade Restrictiveness Index (STRI) seeks to assess how regulatory restrictiveness impedes trade in services. The STRI assesses regulatory barriers to services trade under five categories: 1) Restrictions on foreign entry, 2) Restrictions on the movement of people, 3) Other discriminatory measures 4) Barriers to competition, 5) Regulatory transparency. It covers 22 sectors across 42 countries allowing for a comparison of specific regulations and administrative procedures. To give a snapshot of overall restrictiveness, the STRI indices take values between zero (no restrictions) and one (completely closed to foreign suppliers.

Based on the rich and detailed information in the STRI database, regulatory heterogeneity indices are created for each country pair and each sector. The heterogeneity indices exhibit the share of policy measures that are different between country pairs. They take values between zero and one, where zero signifies country pairs that have exactly the same regulation in a sector, and one portrays country pairs that have completely different regulations. The heterogeneity indices can be used for monitoring the degree of convergence in services regulations as well as for estimating the benefits of co-operation.

Between 2014 and 2016, about one third (32%) of the country pairs saw their services regulations converge in seven sectors (Figure 1.1). In the same period, the services heterogeneity index increased for 30% of the country pairs and stayed the same for the remaining 38%.

Figure 1.1. **Changes in regulatory heterogeneity 2014-16**



Source: STRI database.

Regulatory heterogeneity imposes the highest trade costs between countries that have generally low barriers to trade in services and for products that are highly differentiated and customised. Only when trade barriers come sufficiently down that services firms consider entering multiple markets on a regular basis, and only then do they have to duplicate compliance costs facing a different set of regulations. Second, from the customer point of view having access to a broad range of services beyond what the local market can provide matters the most for differentiated services where finding the supplier that best meets ones needs is highly valued. Examples are architecture, engineering and other regulated professions. It is those types of services that will gain the most from regulatory co-operation.

Research suggests that the trade costs of regulatory heterogeneity may also be significant in the goods sectors. Vigani et al. (2012) find that heterogeneity of regulations for genetically modified organisms leads to less trade between countries. Using data of 60 countries, they find that the most important trade restrictiveness is related to specification costs (labelling requirements) and conformity assessment costs (e.g. the approval process).

Duplication of testing also increases trade costs for exporters. According to the World Bank Technical Barriers to Trade Survey, 44% of the firms reported having to carry out significant duplication in testing, whereas only 7% did not have to incur any duplication to meet foreign requirements (Wilson and Otsuki, 2004). In addition, Fliess and Schonfeld (2006) find on the basis of a survey to which 428 conformity assessment bodies responded that the use of conformity assessment in facilitating trade is not meeting the expected objectives. In fact, the paper identifies that third-party conformity assessment in the country of destination continues to act as an important barrier. Three critical concerns emerge: i) the inability to obtain recognition in export markets for test reports and certificates issued in the country of origin; ii) the requirement of different types of test or conformity assessment process in destination countries, and iii) increased number of identical tests for export markets.

Chen et al. (2006) find that the multiplicity of standards and technical regulations not only decrease the share of exports in firms' total sales but also the likelihood that firms export to many countries. Likewise, studying the effects of standards in textiles and clothing, Shepherd (2007) finds that an increase in the number of standards leads to a reduction in product variety, an indication that standards affect firms' decision to export or not. Moreover, further evidence on the extensive and intensive margin effect of regulatory heterogeneity is found in studies on the impact of regulatory co-operation, discussed below.

Regulatory heterogeneity has a distortive effect on global value chains

The trade landscape is strongly impregnated by global value chains (GVCs) where "firms and consumers are more concerned by information and traceability of products which therefore leads to an expansion of the number of quality and safety standards" (OECD, 2014). However, GVCs raise the challenge of addressing regulatory heterogeneity as along the supply chains different behind the border measures may accumulate "*implying that their trade-distorting effects are greater for goods produced in a fragmented manner than for goods with simple production processes*" (Ferrantino, 2012).

Because of the importance of timeliness and quality and the sensitivity of value chain operations to trade costs, non-tariff measures (NTMs) can prove particularly problematic for GVC trade. A recent OECD (2015b) study focusing on GVCs in Latin American Countries (LAC) shows that on average, NTMs used by Latin American countries impose additional costs equivalent to a tariff of 20% for primary intermediate products and 12% for

processed intermediates. Their incidence is found to be negatively correlated with GVC participation. Latin American countries where NTM restrictiveness with respect to intermediate trade is high and where these issues are not addressed under an RTA are generally less integrated into GVCs. Latin American countries adopting disciplines in trade agreements (e.g. TBT and SPS provisions such as mutual recognition, or harmonisation of technical regulations or conformity-assessment procedures) reduce the cost of NTMs by 20%. The mutual recognition of conformity assessment in itself is estimated to reduce the costs of NTMs by 18%.

The costs of regulatory heterogeneity varies by sector

Depending on the sector, regulatory heterogeneity imposes predominantly fixed or variable trade costs

Depending on the economic sector, the trade costs of regulatory heterogeneity may come as "variable" or "fixed". The importance of fixed and variable costs is documented in the World Bank Technical Barriers to Trade Survey, which reports that the one-time fixed costs incurred by firms from 16 developing countries in Eastern Europe, Latin America, the Middle East, South Asia and Sub-Saharan Africa for complying with technical regulations abroad (costs for an additional plant or equipment and costs of product redesign) varied from a minimum of USD 357 to a maximum of USD 12.3 million, with an average of USD 425 000, or about 4.7% of annual value added (Maskus et al., 2005). In terms of variable costs, 30% of firms indicated that they hired extra labour for production, whereas 18% indicated they hired extra labour for testing, in order to comply with technical regulations (Wilson and Otsuki, 2004). While these numbers again refer to compliance with any kind of technical regulation, including domestic regulations, half of the firms surveyed reported that the costs for complying with foreign regulations were similar or higher than for domestic regulations, including for testing and certification. In general, increased fixed costs are likely to be more of a barrier for small-and medium-sized enterprises. For example, Fontagné et al. (2013) found that the effect of SPS measures will depend on the size of the firm, with smaller-sized firms generally being disadvantaged to a greater extent than larger firms.

The relative importance of fixed and variable costs varies between sectors, with fixed costs likely to be more important for services trade. In particular, regulatory heterogeneity in services often takes the form of licences or qualification requirements, or other regulatory requirements that represent one-time costs without affecting the subsequent trade volume. As Kox and Lejour (2005) suggest, these fixed costs are likely to be more of a barrier for SMEs.

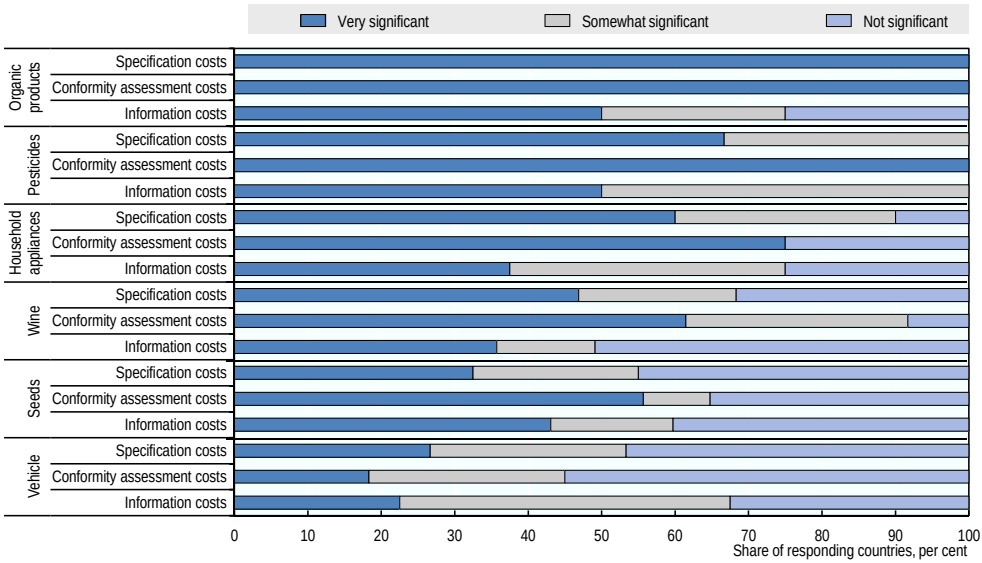
Maintaining divergence in standards on Maximum Residue Levels (MRLs) for chemicals is costly at the extensive trade margin through their fixed cost effect, and regulatory heterogeneity is found to be a greater impediment on the probability of exporting than on the volume of trade. Reyes (2011) uses a detailed dataset linking US firm-level data, US trade data and EU product standards. He shows that harmonisation increases US exports to the EU through an increase in the number of US firms entering the EU market (i.e. the extensive margin). However, harmonisation decreases the sales at existing firms (the intensive margin). In follow-up work focusing on electronics trade, Reyes (2012) shows that harmonisation of EU standards to international standards has increased total imports into the EU, mainly from developed countries.

Depending on the sector, the trade costs of regulatory heterogeneity stem primarily from specification, conformity assessment or information requirements

OECD (forthcoming) sheds light on the impact of regulatory heterogeneity on trade flows in the following sectors: organic food, wine, seeds, pesticide residues in food, household appliances and vehicles. While a full quantification of costs of regulatory heterogeneity remains challenging, the questionnaire used to support empirical findings from case studies suggest that trade costs are frequently perceived as significant. Perceived trade costs are specific to sectors and products as well as to the reporting countries. Overall, perceived trade costs are most significant in organic food products and related to pesticide residues (Figure 1.2). Generally, these costs appear to be less significant in other markets and in particular for vehicles sectors.

Greater differences can be found by looking more at the details of trade costs. Across sectors, conformity assessment costs and specification costs are mentioned as very significant more frequently than information costs. Within the former two groups, costs related to laboratory results and test data (conformity assessment costs), and to labelling requirements (specification costs), appear to be of particular relevance in most sectors. Labelling however is less of an issue for the vehicle sector (the case study focused on pedestrian safety regulation). While the case studies cannot be seen as representative for the overall markets, these results suggest that different trade costs matter to very different degrees across sectors and, indeed, countries.

Figure 1.2. **Perceived trade costs by sector**



Note: Government responses to question "Please indicate the magnitude of the costs or burdens for exporters or importers". Responses relate to subcomponents of specification costs, conformity assessment costs and information costs. For each respondent, an aggregate value for each of these main components was taken to be the maximum of responses to the subcomponents. Note that respondents were participants to the different IRC initiatives analysed. Where sectors are represented by more than one initiative, these are equally weighted independent of differences in the numbers of responses.

Source: Government responses to IRC case study survey; OECD (forthcoming), "Trade Costs in Regulatory Co-operation: Findings From Case Studies", TAD/TC/WP(2016)17/REV1, OECD, Paris.

At the same time, the case study data suggest that trade costs are rarely quantified. Quantification of trade costs seems to be more common in the agricultural sector. There are also indications that countries quantify less frequently when they belong to more formalised co-operation initiatives than to ad hoc and relatively recent initiatives. One suggested explanation for this may be that the awareness for the importance of assessing the problem in as much detail as possible prior to co-operation, and the tools to do so, have improved over time. It may also denote that, while trade facilitation is one of the objectives, attention and resources are predominantly geared towards domestic regulatory objectives.

Regulatory heterogeneity may, however, impose only marginal trade costs in some sectors

Finally, research suggests that regulatory heterogeneity is not always a major impediment to trade. Winchester et al. (2012) assess the impact of regulatory heterogeneity for agricultural and food products for the EU and nine of its major trade partners and find that it has little or no effect or negative effects on trade, with a nuanced finding for MRLs of pesticides. Similarly, Drogué and DeMaria (2012) study the effects of MRLs of pesticides on the trade in apples and pears among 40 countries. Their results show that reducing heterogeneity would increase the odds of trading, but regulatory distance does not impede trade for all country pairs. These results underscore that regulatory heterogeneity is not always a major constraint on trade, especially when market access is limited by existing trade measures. In the agricultural sector Disdier, Fontagné and Mimouni (2008) found that technical regulations in agricultural trade significantly slowed trade in some sub-sectors while well-designed regulations and conformity assessment procedures had a positive impact on trade facilitation (Van Tongeren et al., 2010).

How can the evidence on trade costs inform the development of regulation

Assessing the trade costs of regulatory heterogeneity is not merely a technical or academic exercise. There is evidence that regulators in many OECD members seek to capture the potential trade costs of new domestic regulatory measures in their regulatory impact assessment (RIA) process. Yet, regulators and policy makers more generally may still enhance the use of RIA and other tools and disciplines supporting the development and revision of regulation to better assess the trade impacts of regulatory measures, to identify their divergence from key trade partners and international standards and to adequately balance these against other public policy considerations.

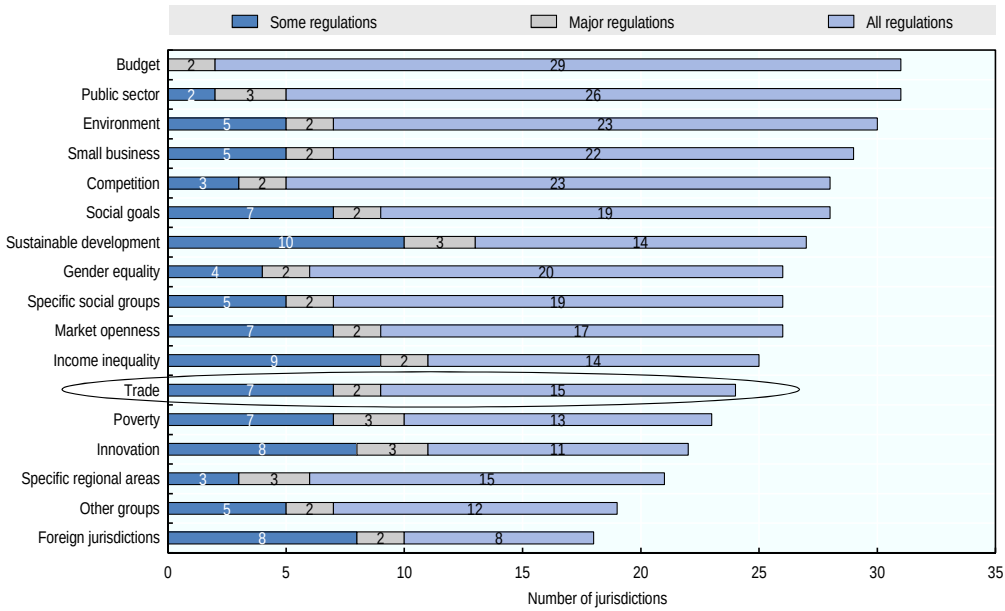
Regulators have tools to assess trade costs of regulation and to balance them in a broader welfare perspective

Through the adoption of the OECD Recommendation of the Council on Regulatory Policy and Governance (2012), OECD countries have recognised the importance of high quality regulation, i.e. regulation that is effective, efficient, legitimate and accountable. In line with this recognition, they have adopted a number of tools, including RIA, stakeholder engagement and *ex post* evaluation, to help regulators to assess and to balance the various impacts of domestic regulation in view of maximising

welfare of citizens. They have also acknowledged the importance of giving consideration to the broader international context when regulating in view of promoting regulatory coherence and avoiding unnecessary regulatory frictions. These approaches thus provide general principles and tools for regulators to assess the trade costs and to mainstream trade and other public consideration in rule-making.

The purpose of RIA in particular is to shed light on and inform policy makers about the costs and benefits of various regulatory and non-regulatory options to address a public policy concern. RIA is an *instrument* and a *decision process* for informing policy makers on whether and how to regulate to attain countries' public policy objectives. RIAs seek to assess the need for public intervention, potential regulatory options for intervention as well as the various expectable impacts of these options across public policy domains in terms of costs, benefits, efficiency and effectiveness. RIAs ideally enable policy makers to compare and to select the welfare-enhancing regulatory option to deal with an issue. When used early enough in the development of regulatory proposals, it facilitates the dissemination of information about regulatory initiatives within public administrations and between public administrations and society.

Figure 1.3. **Assessment of various impacts of primary laws in RIA**



Source: OECD (2015a), *OECD Regulatory Policy Outlook 2015*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264238770-en; OECD (2015c), 2014 OECD Regulatory Indicators Survey, www.oecd.org/gov/regulatory-policy/measuring-regulatory-performance.htm.

Evidence shows that in most OECD countries, regulators report using the tools of regulatory policy to assess and to balance trade and many other public policy considerations in developing or updating regulation. In particular, according to the 2015 Indicators of Regulatory Policy and Governance, two-thirds of OECD members report formally assessing trade-related impacts and costs for proposed laws and regulations in their RIA procedures (Figure 1.3).

A review of national RIA guidelines shows that there is significant variation in how trade costs are approached across countries (Basedow and Kauffmann, 2016). Most countries require regulators to quantitatively assess how potential regulatory interventions affect the economy at large. This assessment may – but does not necessarily – include impacts on trade flows. Some national RIA guidelines explicitly foresee a quantitative evaluation of how regulation affects imports, exports, investment flows, market openness, competition and third countries. Other national RIA guidelines foresee to qualitatively analyse how draft regulations interact with international and foreign measures including trade-related commitments. However, RIA does not normally seek to capture firm-level trade costs in the form of specification, conformity assessment or information costs.

In order to collect the necessary evidence on the impacts of their regulatory interventions, policy makers typically complement RIA with stakeholder engagement and *ex post* evaluation. Stakeholder engagement is a formal requirement in the development of regulation in all OECD countries. It may contribute to identifying and dealing with trade impacts of regulatory initiative if foreign stakeholders are allowed to submit their views as they may provide information about unintended trade impacts and highlight the costs and benefits of opting for or maintaining the same or different regulatory approaches. Along these lines, the *APEC-OECD Integrated Checklist on Regulatory Reform* (OECD, 2005) recommends that countries allow foreign stakeholders to take part in consultations at the design and *ex post* evaluation stage in view of assessing regulatory impacts inter alia on trade and to avoid discrimination. Similarly, *ex post* evaluation may draw attention to unexpected impacts of regulation – especially at the enforcement stage – and may provide information on the impact of the regulatory environment at large on traders. Regulatory management tools may also provide an important opportunity and the necessary evidence for regulators across jurisdictions to exchange on which regulatory approaches perform best.

There is important potential to improve the use of regulatory management tools for the assessment of trade costs

The review of national RIA guidelines and of selected RIA examples shows that there is a gap between the theoretical use of RIAs enshrined in national guidelines and the reality. Regulators face generic and trade-specific challenges in the use of RIA. First, due to the difficulties to define threshold and proportionality rules for assessments, regulators face an assessment overload. They have to assess too many impacts at too much detail undermining the quality of RIA assessments. They also often struggle to identify, to measure and to quantify the manifold trade costs of new regulation – they typically lack a clear definition and understanding of trade costs and a methodology to embed these costs in the welfare function. The assessment of the trade impacts of regulatory divergence infers an even greater effort. The sometimes arduous inter-service co-operation and limited flow of information and expertise reinforces this methodological assessment problem.

Consequently, looking ahead, several steps could be taken to support better consideration of trade impacts in regulatory policy making. Identifying and defining better the substantial trade costs of regulatory divergence would help regulators – who are constrained by resources and expertise – focus on domains where the integration of trade considerations into GRP is appropriate and welfare enhancing. In parallel, threshold and proportionality rules should be better defined to ensure that trade impacts are soundly assessed when necessary without overloading the RIA process. Better co-ordination across line ministries would help to enhance the flow of information and expertise on trade related and other potential impacts and adequately balance them. There is an important role for oversight bodies as the gate keepers of the quality of the RIA to ensure that this co-ordination is taking place.

The use of stakeholder engagement and *ex post* evaluation tools to build the evidence base on the impacts of a regulatory measure, including its trade costs and effectiveness *vis-à-vis* alternative measures, remains limited. Only few countries de jure allow foreigners to participate in stakeholder consultations limiting their usefulness for the assessment of trade costs (Basedow et al., 2016).

Generally, the practice of *ex post* evaluation of regulation significantly lags behind RIA and stakeholder engagement in OECD countries. Even when it is conducted, *ex post* evaluation rarely focuses on assessing the trade impacts of regulatory measures or the consistency of domestic legislation with other jurisdictions. These findings demonstrate that there may be an important potential for improvement across OECD members in the use of stakeholder engagement and *ex post* evaluation in conjunction to RIA, to ensure a better consideration of regulatory coherence in the development and revision of regulation.

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Chapter 2

The merits and challenges of various IRC approaches to address trade costs

This chapter reviews the range of IRC mechanisms and their potential to address trade costs. It analyses the contribution of regulatory policy (good regulatory practices) to regulatory quality and coherence, the potential of international standards to support greater regulatory alignment, and the scope for bilateral and regional approaches, notably through mutual recognition and trade agreements, to streamline market procedures and facilitate market entry.

Introduction: There is a range of possible approaches to promote regulatory coherence

Evidence shows that there is a variety of regulatory co-operation approaches that policy makers can draw on to achieve greater regulatory coherence and reduce trade costs. Using a broad definition of international regulatory co-operation (Box 2.1), OECD (2013) identifies 11 approaches, ranging from informal dialogues, mutual recognition agreements, adoption of international standards, regulatory provisions in RTAs and supranational harmonisation of regulation. These approaches vary in their level of formality. They contribute to a varying degree to regulatory convergence and range all the way from unilateral to multilateral action.

Box 2.1. **Defining international regulatory co-operation**

There is no internationally agreed definition of international regulatory co-operation (IRC). In order to start gathering evidence on IRC practices in support to the implementation of the 2012 Recommendation of the Council on Regulatory Policy and Governance, the OECD Regulatory Policy Committee (RPC) developed a working definition of IRC, which is reflected in OECD (2013). This definition has been the basis for follow-up work of the RPC on IRC.

According to this working definition, IRC can be defined as "Any agreement or organisational arrangement, formal or informal, between countries to promote some form of co-operation in the design, monitoring, enforcement, or *ex post* management of regulation".

There are several implications to this broad definition. First, IRC is seen as not restricted to its strict equivalence with international legal obligations, but also includes non-binding agreements and voluntary approaches. Second, IRC is not limited to the design phase of the regulatory governance cycle, but importantly includes the downstream side of enforcement and *ex post* management of regulation.

Source: Based on OECD (2013), *International Regulatory Co-operation: Addressing Global Challenges*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264200463-en.

As defined in OECD (2013), IRC may have other objectives than trade facilitation and be applicable to a vast array of sectors and areas – including addressing societal and environmental challenges such as migration, climate change and financial stability. Yet reducing trade frictions has become an increasingly important objective of IRC and a number of IRC approaches, such as regulatory harmonisation (as provided in the EU single market), recognition of international standards, mutual recognition, specific provisions in trade agreements, and information sharing, for example, are

particularly relevant in this regard. In the context of this report, the consideration of IRC is therefore limited to its potential to facilitate trade. As such, it meets the definition provided by the WTO Committee on Technical Barriers to Trade: "Regulatory co-operation is about regulators from different governments engaging with one another on rules and principles for regulating markets in the pursuit of more compatible, transparent and simple regulations, and the lowering of trade barriers" (Summary report of the TBT Workshop on regulatory co-operation between Members, 8-9 November 2011G/TBT/W/348, 14 February 2012, p. 1).

Box 2.2. **The trade benefits of IRC: Lessons from the theoretical framework**

Economic theory suggests that trade-related IRC balancing domestic objectives (including, in particular, the mitigation of market imperfection) against the benefit from enhancing international trade allows for substantial trade cost reductions particularly in areas where societal preferences are relatively weak. In contrast, where diverging from domestic objectives is very costly, no scope for such balancing may exist. In practical terms this means that such objectives, notably when they concern health or other high-relevance societal goals, will not be compromised.

The desirable degree of co-ordination is crucially determined by the relative importance of benefits from keeping current (or, in the case of new regulatory issues, domestically preferred) regulation versus the costs stemming from regulatory heterogeneity between countries. The more important such domestic effects are relative to economic losses related to trade costs, the more divergent optimal regulation will remain. In other words, if trade costs are small but domestic preferences for a certain type of regulation very strong, it may not pay off to engage in costly international regulatory co-operation processes. Conversely, where trade costs are high relative to the benefits of keeping current regulation in place, the optimal outcome of IRC may be a strong reduction of regulatory divergence.

Significant gains can often be realised already by an improved exchange and consideration of information on regulatory preferences across countries. In the absence of information about trade partners' regulations and regulatory preferences, regulators are bound to set their regulations solely on the basis of the domestic welfare component. Resulting regulations are therefore likely to be more different and to result in higher trade costs than necessary. If a country is fully aware of its trade partners' regulations when setting its own one, considering this information allows to balance trade costs against domestic regulatory effects and hence significantly reduce any trade costs and to achieve related welfare gains for both that country and its trade partners.

Box 2.2. **The trade benefits of IRC: Lessons from the theoretical framework** (*cont.*)

Negotiations (or other forms of confidence-building co-operation) between countries can achieve regulatory outcomes which further improve their welfare beyond a non-cooperative outcome. In particular, from a welfare perspective the best approach would be for countries to bundle regulatory questions under negotiation, allowing to broaden the set of potential trade-offs and to improve the distribution of resulting gains, thus further improving welfare effects for participating countries.

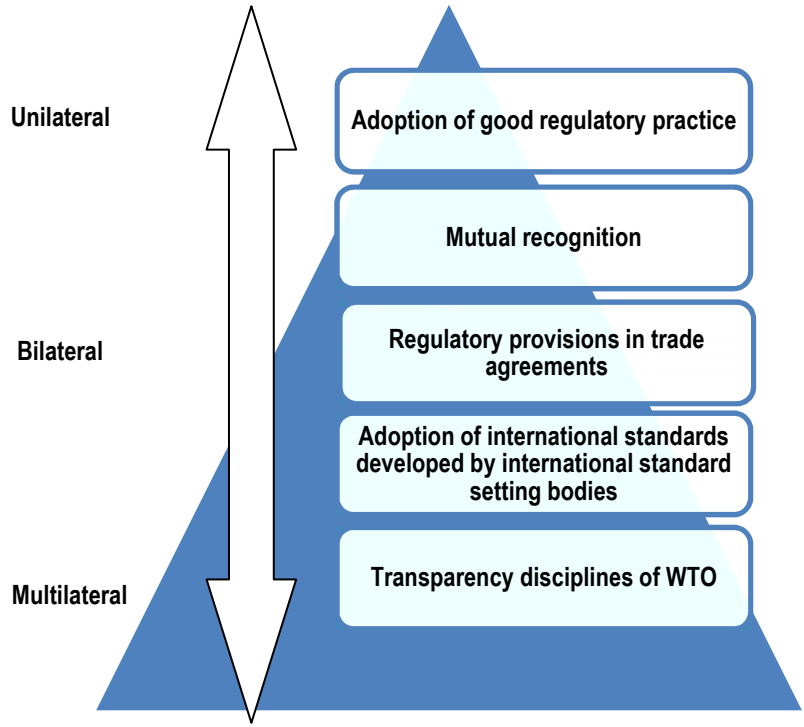
Source: von Lampe et al. (2016), "Trade-Related International Regulatory Co-operation – A Theoretical Framework", *OECD Trade Policy Paper*, No. 195, OECD Publishing, Paris, http://dx.doi.org/10.1787/3fbf60b1-en.

The desirable degree of co-ordination (Box 2.2) and the effectiveness of the different IRC mechanisms in addressing the trade costs identified in Chapter 1 vary. Typically, information costs are likely to be best addressed through IRC mechanisms that increase the flow of information and transparency on regulatory regimes. This is typically the case with the systematic use of good regulatory practices (GRP), which promote transparency on regulatory frameworks and stakeholder engagement in regulatory development and review. Multilateral transparency requirements such as provided by the WTO are also in this category. Specification costs are best lowered through mechanisms, which reduce or limit differences in product requirements. International norms and standards (by intergovernmental organisations or international standard-setters) typically limit the need to specify goods and services for specific export markets. Finally, conformity assessment costs are best addressed through IRC mechanisms streamlining the administrative procedures for market admissions, such as the harmonisation of testing protocols or arrangements making procedures more flexible. Mutual recognition may serve this purpose.

The following sections review the potential of various IRC mechanisms to address trade costs, including the unilateral steps that countries can take to avoid regulatory divergence, the various bilateral and plurilateral agreements, and the multilateral approaches (Figure 2.1). GRP at domestic level are a foundational step towards regulatory quality and coherence and one that is likely to facilitate the development of more ambitious IRC approaches. Arguably, in a context of global value chains and intensified trade links across countries, the more multilateral the co-operation, the more likely it is to reduce trade costs globally. In this perspective, the potential of

international standards to support greater regulatory alignment and reduce specification cost is high but remains under exploited. In between, there is scope for bilateral and regional approaches, notably through mutual recognition and trade agreements to streamline market procedures and facilitate market entry.

Figure 2.1. **Approaches to promoting regulatory coherence and reducing trade costs**



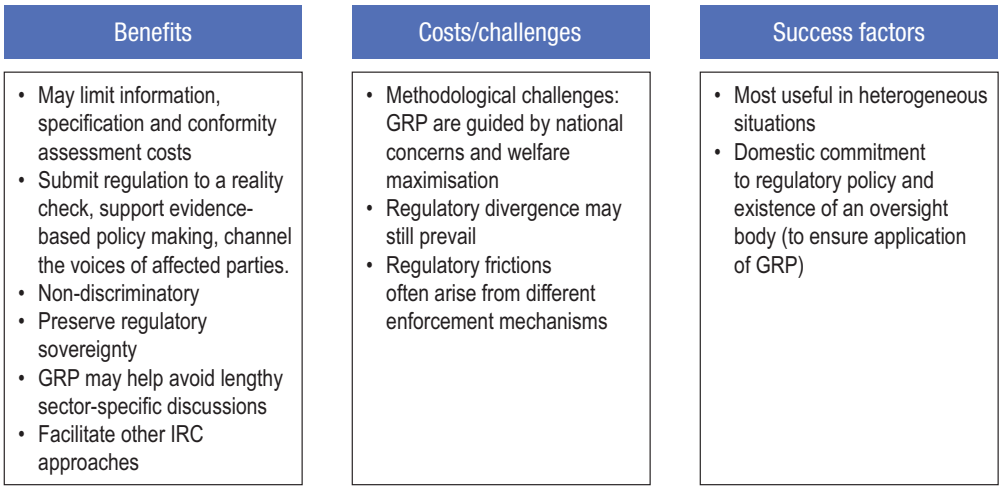
Source: Adapted from OECD (2013), *International Regulatory Co-operation: Addressing Global Challenges*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264200463-en.

Good regulatory practices may well be a foundational element of IRC and an important step in addressing the trade costs of regulatory divergences

The disciplines of regulatory policy (RIA, stakeholder engagement and *ex post* evaluation) have become part of the IRC strategy of a number of OECD countries. The references to good regulatory practices (GRP) in the regulatory co-operation chapters of recently developed trade agreements illustrate this development. The topic has also received growing attention in the TBT Committee.

There are reasons for this focus. When applied consistently, these disciplines are expected to promote regulatory quality and transparency.[1] Transparent regulatory regimes should limit information costs for traders. High quality regulation, in turn, may reduce the likelihood of regulatory duplication, unnecessary regulatory heterogeneity and provide efficient administrative and enforcement procedures. Hence, to the extent that GRP are likely to support regulatory convergence, they may limit specification and conformity assessment costs.

Figure 2.2. **Summary of benefits, costs and success factors of GRP**



Source: Illustration based on the results of Basedow, R. and C. Kauffmann (2016), "International Trade and Good Regulatory Practices: Assessing the Trade Impacts of Regulation", *OECD Regulatory Policy Working Papers*, No. 4, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jlv59hdgtf5-en.

Recent OECD work identifies a number of possible ways in which GRP can support trade objectives (Basedow and Kauffmann, 2016). First, GRP submit regulatory measures to a reality check. RIA, stakeholder engagement and *ex post* evaluations support evidence-based policy making and help channel the voices of affected parties, including trade-related concerns. As GRP increase the awareness for impacts across public policy domains inter alia in trade policy, they are likely to help detect elements of regulatory measures that could create unnecessary barriers to trade and limit duplication and unnecessary divergence vis-à-vis foreign and international regulatory frameworks and standards.

Second, GRP support transparency and build confidence in regulatory framework and institutions among co-operating parties. GRP promote the establishment of institutions and systematic practices to support regulatory

quality. It increases the transparency and predictability of the regulatory process, a key pillar of stakeholders and partner countries confidence in regulatory framework.

Finally, when used in line with the 2012 OECD Recommendation with a view to improve regulatory quality, GRP are well aligned with key principles and values of both regulators and traders – they are therefore likely to be less resisted and more sustained over time than other IRC approaches. They do not limit regulatory sovereignty, a key concern of countries in relation to IRC (OECD, 2013), and they are of non-discriminatory nature – all potential trade partners can benefit from better rules.

GRP, however, do not automatically ensure regulatory convergence and the more substantial cost reduction that such convergence may generate. These impacts depend critically on the extent to which GRP are actively and consistently used across countries. Evidence collected as part of the 2015 OECD Regulatory Policy Outlook (OECD, 2015a) monitors the uptake of regulatory policy across OECD countries – in particular the use of RIA, stakeholder engagement and *ex post* evaluation. It underlines the large scope for improvement in the strategic use of regulatory management tools. In a number of OECD jurisdictions, these tools are largely used in a procedural manner with limited impact on regulatory policy making. Beyond the OECD, understanding and application of GRP are slowly developing, but still remain limited.[2] Beyond these considerations of consistent application, there is limited empirical evidence that supports a clear understanding of regulatory convergence achieved through GRP. There may be reasons for this impact to be limited (Basedow and Kauffmann, 2016).

First, GRP faces methodological challenges. GRP are guided by national concerns and welfare maximisation within each jurisdiction. They do not deal with and solve regulatory divergences directly. Then, the extent to which greater transparency and understanding of the different positions (including those of foreign parties) will lead to regulatory convergence is not clear. There may be several reasons for which it may not work, such as regulatory path dependency, complex multi-level regulatory governance, different agency cultures, diverging public policy objectives and hidden protectionism. Finally, regulatory frictions to trade and investment often arise from different enforcement mechanisms rather than from diverging rules. Regulatory co-operation to address these differences requires going into the details of regulation and their application to find the exact source of frictions. Remaining at the level of the quality of the rules – as aimed for through GRP – will not be enough to address the underlying frictions.

Given these characteristics, it is likely that GRP can help countries build credibility in their institutions through greater transparency and commitment to evidence-based rule-making. GRP are also likely to provide regulators in partner countries the knowledge about their respective regulatory framework and the confidence that regulation is of a high quality, even if regulatory systems differ substantially. As tools supporting evidence-based regulatory policy making, they are also likely to help develop a basis of evidence upon which regulators could not only build their action, but also exchange with their peers in other jurisdictions. As such they are likely in the long run to promote the success of even more ambitious IRC efforts among countries. They can be seen as an important foundation for more ambitious, proactive and targeted IRC approaches (such as mutual recognition and joint rule-making for instance).

The potential of international standards to support greater regulatory alignment and reduce specification cost is high but remains under-exploited

Recognition and incorporation of international standards[3] support the harmonisation of technical specification of products across export markets. As such, it allows policy-makers to lower specification costs. International standards may also help to harmonise conformity assessment procedures across countries. Traders may thus rely on the same specification and conformity assessment tests to enter export markets. The use of international standards has been boosted by the 1994 WTO agreement on Technical Barriers to Trade and SPS. Signatory governments have committed to base regulatory measures covered by these agreements on relevant international standards, guides and recommendations where they exist and to the extent that they are determined appropriate.[4]

In response to their WTO obligations, a significant number of OECD countries have embedded strong domestic sectoral or cross-sectoral procedural requirements to systematically consider recognition and incorporation of international standards in the formulation or revision of domestic technical regulation (OECD, 2013). As an example of such requirement, the Best Practice Regulation Handbook of Australia recommends that a Regulatory Impact Statement "document any relevant international standards and, if the proposed regulation differs from them, identify the implications and justify the variations".

There are nevertheless a number of challenges associated with the domestic use of international standards, which reduce their effectiveness. Despite the policy commitment, the evidence suggests that actual use of standards in regulatory documents is highly diverse, complex and opaque –

even when broad policy guidance may exist. OECD (2013) notes the limited knowledge of how practically international standards are reflected in domestic technical regulations. Based on a pilot study of three sectors (domestic electrical appliances, natural gas, and telephone handsets) and five OECD members (Canada, European Union, Korea, Mexico and the United States), Fliess et al. (2010) finds that it is difficult to identify, for a given sector, which standards are used, for which regulatory objectives, and with which links – direct or indirect – to international standards.

Figure 2.3. **Summary of benefits, costs and success factors of international standards**

Benefits	Costs/challenges	Success factors
• Limits specification and conformity assesssment costs steming from regulatory heterogeneity • Supports a multilateral approach fit for globalised production and markets • Allows countries to access to standards that can be used in domestic legislation at low costs • Flexible, voluntary and demand driven	• Multiplicity of standards in the same field • Use of standards in regulatory documents is complex and opaque • There may be questions about the quality, international dimension, appropriateness to local needs of the standards	• More systematic consideration and use in domestic frameworks • Greater assurance that international instruments are fit for purpose and of high quality • Avoid fragmentation and overlaps

Source: Based on the results of OECD (2016), *International Regulatory Co-operation: The Role of International Organisations in Fostering Better Rules of Globalisation*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264244047-en.

There are practical issues that may explain these results. A regulator may for example not know which and how to use the international standards or find it not fully appropriate to its specific context. This can discourage use or lead to inconsistent application across countries, which, ultimately, does not help to lower costs. In order to support greater consistency of practices, the Australian government has developed a Best Practice Guide to Using Standards and Risk Assessments in Policy and Regulation[5] and is currently building an information base on standards (both domestic and international) referenced in regulation at the national and sub-national level. In 2016, the United States updated its guidance for federal agencies on use of voluntary consensus standards to support regulatory efforts.[6]

These insights are in line with the findings of current OECD work on the standard development activities of international organisations (IOs) (OECD, 2016). This work confirms the multiplicity of IOs involved in standard-setting, including inter-governmental and private organisations that include input from both government and non-government stakeholders. Multiple sources of international standards may provide regulators with choice and flexibility, and help to ensure standards are available in a timely fashion to meet the needs of governments and the business community. At the same time, improvements in co-ordination and communication mechanisms could assist regulators to understand applicable rules and the strengths and weaknesses of specific standards for achieving regulatory objectives. In addition, there is limited monitoring by IOs and countries alike of the use of standards and, consequently, of their impacts.

While regulators need to consider more systematically international standards when developing and applying domestic regulatory frameworks, they also need assurance that they are of high quality, widely and easily accessible, and will help achieve public interest in their own jurisdiction. The six principles established by the TBT Committee (transparency, openness, impartiality and consensus, effectiveness and relevance, coherence, and the development dimension) provide a critical framework to develop high-quality standards. Lessons learnt from the systematic application of GRP at the domestic level can also usefully inform the development of rules and standards at the international level, in particular by identifying the good practices in evidence-based rule-making. Greater monitoring of the application of international standards and more evaluation of their impacts would help make the case for their use.

Mutual recognition alternatives: Lowering conformity assessment costs and facilitating market access when trade value justifies it

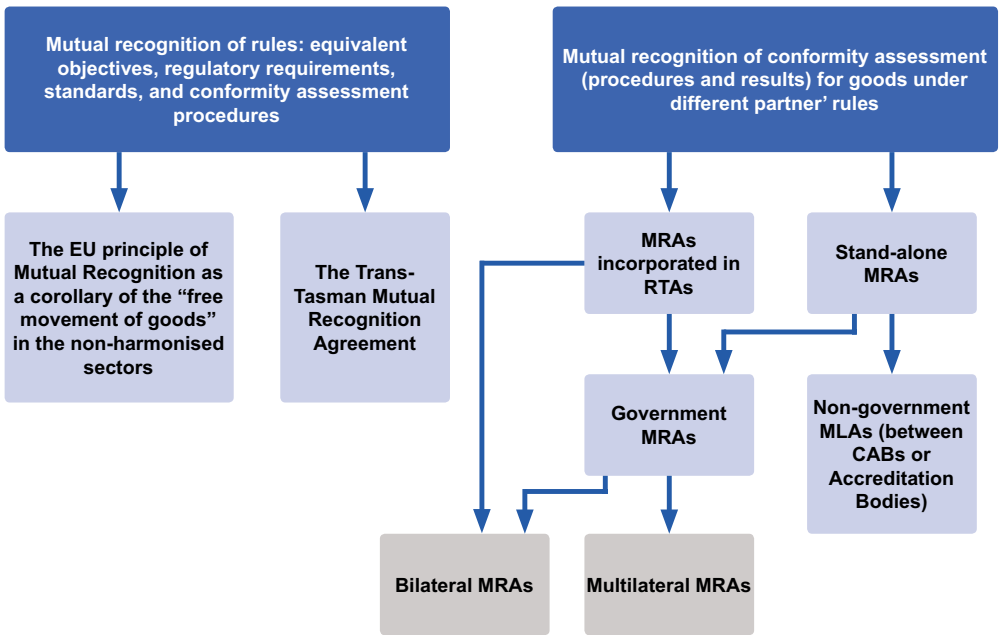
In a general sense, mutual recognition (MR) implies that goods or services produced under a regulatory regime or rules in one country enjoy unhindered market access in the partner country, presumably having different rules. There is a wide variety of MR modalities – Figure 2.4 illustrates the spectrum for the goods sectors.

Mutual recognition of rules is the most fundamental option. The regulatory objectives or effective results of regulation for goods coming from the first country are regarded as ‘equivalent’ in the second, implicitly or explicitly, and vice versa. Hence, the regulatory requirements, standards and results of conformity assessment applied in one country are recognised as yielding functional equivalence for protection of consumers and workers in the other, and vice versa. There are two well-known systematic examples

of MR of rules in the OECD: the EU internal market and the Trans-Tasman Mutual Recognition Arrangement. The EU-US organics equivalence arrangement also provides a specific example of mutual recognition of rules: under the Arrangement, the EU and the US mutually recognize the equivalence of their respective organic programmes and allow their products to be marketed as "organic" on their respective markets.[7]

Mutual recognition of conformity assessment (procedures and results) is less ambitious but much more common (Correia de Brito et al., 2016): the MR refers solely to the capability of conformity assessment bodies (CABs) in one country to perform testing and certification on selected goods to be exported to a second country, against the rules, standards and conformity assessment methods in the latter, and vice versa. In this option, there is neither acceptance of equivalence, nor is it needed. What underlies this MR option is the confidence that the technical and institutional infrastructure in each country is of sufficiently high quality and that the CABs carrying out the conformity assessment are competent to do so and knowledgeable about the requirements in the partner country.

Figure 2.4. **Mutual Recognition: Spectrum of modalities**



Source: Based on Correia de Brito, A., C. Kauffmann and J. Pelkmans (2016), "The contribution of mutual recognition to international regulatory co-operation", *OECD Regulatory Policy Working Papers*, No. 2, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jm56fqsfxmx-en.

There is a variety of ways in which governments recognise conformity assessment bodies and accept the results of conformity assessment, including through government-to-government Mutual Recognition Agreements (MRAs) as well as non-governmental frameworks (MLAs). Most governmental MRAs are "stand-alone" but increasingly Regional Trade Agreements (RTAs) refer to mutual recognition of conformity assessment in more or less elaborated ways. Stand-alone MRAs have become more varied, too. Another recent development is the emergence of multilateral government "arrangements" in specific sectors. These voluntary MR arrangements have been initiated by APEC in telecoms equipment and in electric and electronic goods. These MRAs have different stages of ambition and APEC countries can adhere to them stage by stage.

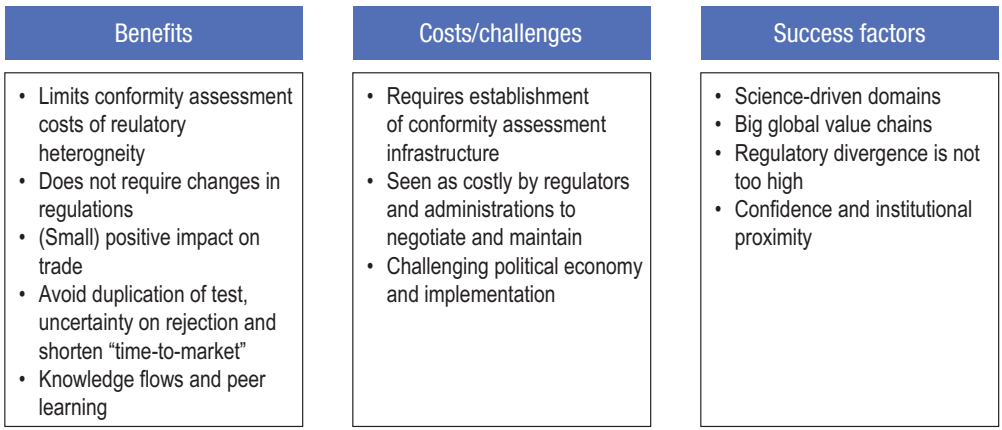
CABs and national accreditation bodies have organised non-governmental agreements of a multilateral nature recognising each other's competence, based on proven adherence to international standards for carrying out conformity assessment, testing, inspection and accreditation tasks competently and impartially. Three international agreements help to illustrate this approach (Correia de Brito et al., 2016): the MRA amongst metrology institutes of the CIPM (International Office of Weights and Measures),[8] the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement,[9] and the Multilateral Recognition Arrangements of the International Accreditation Forum (IAF) [10]. Such agreements incorporate peer review and other methods of scrutiny.

MR between such bodies means that a laboratory test, management systems inspections or product verification by a conformity assessment body that has been accredited as compliant with recognised standards of quality by one member of the MRA or MLA, is acceptable to all other members of the MRA or MLA. No retesting or further certification is required. These agreements are typically the private institutions governments rely on when they do not utilise (or do not have) testing and certification bodies of their own, or when they require accreditation. More generally, they constitute important pillars of conformity assessment infrastructure upon which confidence in markets is built. They are likely to help eliminate costly duplication of tests and certification when regulatory authorities accept the reciprocal recognition underpinning these global networks.

MR of rules remains an exception for a number of reasons. It implies a very high level of confidence in partners' regulatory, conformity assessment and enforcement system, and the establishment of equivalency of rules may be both technically challenging and politically difficult (Correia de Brito et al., 2016). In addition, MR of rules may generate confusion of consumers and industry users of imported products as to which rules they comply with (von Lampe et al., 2016). Market participants may not always be aware of

different rules being equivalent, which may create market frictions despite formal product admission. Finally, the equivalence of rules may be difficult to enforce if an importing country rejects products compliant with equivalent rules, unless sufficient supra-national enforcement mechanisms are in place. MR of rules therefore is an option only for specific conditions, notably in well-defined sectoral areas or between a limited number of countries with similar regulatory approaches.

Figure 2.5. **Summary of benefits, costs and success factors of MRAs**



Source: Illustration based on the results of Correia de Brito, Kauffmann and Pelkmans (2016), "The contribution of mutual recognition to international regulatory co-operation", *OECD Regulatory Policy Working Papers*, No. 2, OECD Publishing, Paris, http://dx.doi.org/10.1787/5jm56fqsfxmx-en.

Mutual recognition of conformity assessment is essentially a trade instrument aimed to lower conformity assessment costs (see Box 2.3 for a decomposition of conformity assessment costs). Its purpose is to facilitate mutual market access by eliminating duplicative testing and certification or inspection, reducing the uncertainty about a possible rejection and shortening "time-to-market". MRAs are also theoretically appealing to regulators in the sense that they do not imply or require any change in regulation. Their use has nevertheless shown that mutual recognition is largely facilitated when there is regulatory alignment and proximity (Correia de Brito et al., 2016).

OECD (2016a) suggests that MRAs are among the IRC mechanisms that are most broadly perceived by governments to reduce costs and burdens for producers, exporters and other stakeholders. The literature however shows that MRA's positive impact on trade remains relatively small. MRAs are also perceived by regulators and the administration costly to develop and to

maintain (Correia de Brito et al., 2016). The costs of MRAs consist in time and human resources, often highly specialist ones, to invest in and raise the political capital to support the MRA negotiations, to mobilise bureaucratic actors, to lobby legislatures and to mollify or incentivise business making the case for MRAs before a MRA has been concluded; and to maintain and ensure the appropriate operationalisation of the MRAs once it is active. Together with market surveillance, conformity assessment also constitutes the key pillars upon which market confidence is built. Should accidents happen, there is a political cost of trusting the fulfilment of regulatory requirements with foreign bodies – explaining some of the reluctance of regulators to engage in such approaches and highlighting the importance of quality international governance architecture.

Box 2.3. **Conformity assessment methods versus conformity assessment bodies: Different perspectives on reducing costs**

Reducing conformity assessment costs involves either an alignment of conformity assessment methods or a simplification of conformity assessment procedures, or both (von Lampe et al. 2016). Differences in conformity assessment methods (or techniques) can often be reduced or eliminated based on evidence, including scientific evidence, allowing identifying methods most suitable for identifying specific product or process characteristics. Co-operation therefore needs the involvement of (if not guidance by) technical experts.

In contrast, requirements related to the "who" in conformity assessment procedures generally require a trade-off as regulators need to balance trade costs with the risks related to non-compliant imports. More flexible conformity assessment procedures, such as accepting tests and certificates from the exporting country's conformity assessment bodies or even suppliers' declarations of conformity (SDoCs), generally reduce costs borne by producers and exporters. At the same time, they increase the perceived probability of non-compliant products entering the market: the importer's authorities can exercise less control to ensure compliance relative to a system requiring tests and certificates to be established by conformity assessment bodies in the importing country. Products with higher damage potential, such as medical devices, or high-risk regulatory issues such as residues of toxic substances in food, are therefore more likely to require high-cost conformity assessment procedures than regulatory issues with a lower potential damage (e.g. the shape of electronic connectors, which can therefore be left more easily to the industry). However, a number of options exist to reduce the probability of non-compliant products entering the market and the potential damage such products can generate. These, include but are not limited to co-operation and peer-reviewing of conformity assessment bodies, effective liability laws and other incentives to deter moral hazard, education and information of consumers, and well-functioning market surveillance systems.

As a consequence, mutual recognition of conformity assessment is proving more successful in situations where the trade case is clear and outweighs the costs and risks of engaging in it. The more similar and higher quality the regulatory and conformity assessment infrastructure, the lower the costs and the higher the value obtained through the MRA (Correia de Brito et al., 2016):

- MRAs are more successful in regulatory domains which are science-driven and in sectors with global value chains, where sufficient economic gains are expected, typically telecoms equipment and electronic goods.
- MRAs are more successful when regulatory divergence is not too high. The higher the regulatory divergence, the more difficult to negotiate and to implement an effective MRA. MRAs are therefore more likely to be successful among countries that share regulatory objectives and similar regulatory frameworks and institutional set up. Reference to international standards may provide the minimum regulatory alignment required.
- Confidence about the regulatory infrastructure of the partner(s) is a critical condition of success. This involves institutional proximity, high-level commitment, transition period to allow for the institutions in the respective countries to get to know each other and a commitment to good regulatory practices. An MRA also needs to be supported on the domestic market by a functioning and tailored market surveillance system to assure compliance.

Confidence in foreign conformity assessment bodies needs to be strong. This confidence can be increased through three different channels: i) an improvement of the technical and administrative conformity assessment infrastructure of the exporting country to reduce the likelihood of erroneous certificates for exported products; ii) appropriate incentive structures (including market surveillance and sanctioning systems that allow penalising non-compliance) to reduce the risk of moral hazard; and iii) enhanced co-operation and transparency between countries' conformity assessment and accreditation bodies – including through high-quality international standards for conformity assessment and accreditation – to allow an importing country's regulator to more adequately judge the exporting country's capacity to ensure a well-functioning conformity assessment.

When designating or approving conformity assessment bodies, regulators may recognise and refer to the various voluntary agreements which national accreditation agencies and test facilities have formed among themselves, on a peer-to peer basis. While these agreements have gained

traction in the voluntary sector, they appear less frequently recognised by regulators as the basis for acceptance of results of mandatory tests and certification. The existing arrangements lack visibility and sharing of information about experiences of their acceptance in a regulatory context would be helpful. Regulators can engage with their domestic accreditation agencies and satisfy themselves that the procedures within these voluntary arrangements for assuring quality work and providing conformity assessment against their national regulations is sufficiently rigorous.

RTAs as a vehicle to encourage IRC and reduce trade costs

Trade facilitation and reducing unnecessary trade costs are important objectives of IRC. In turn, trade agreements have increasingly encouraged IRC in a wide range of policy areas, such as competition policy and anti-corruption, and sectors (both goods and services). By ensuring and maintaining the principle of non-discrimination in domestic regulations (national treatment and most-favoured-nation treatment) and putting great emphasis on designing least-trade restrictive regulations, trade agreements can contribute to more coherence and convergence in regulatory matters. More recently, the importance put on regulatory measures and barriers to facilitate trade and enhance competitiveness has led to the incorporation in RTAs of provisions of relevance to IRC. RTAs can be seen as a portal to different IRC instruments that promote transparency as well as encourage parties to the agreements to initiate co-operation.

RTAs vary in the way they embed regulatory co-operation commitments. Some RTAs rely only on broad language that encourages countries to recognise each other's measures, to carry on co-operation activities and to exchange information, while other contain more binding language and concrete co-operation activities. Beyond the variation in approaches, three approaches to address regulatory heterogeneity through RTAs can be identified.

- RTAs that include specific provisions related to IRC mechanisms such as harmonisation, mutual recognition and equivalence, transparency.
- RTAs that contain sector-specific annexes or chapters to increase regulatory co-operation; for example, many RTAs include annexes on the mutual recognition of medical devices
- RTAs that incorporate a horizontal chapter on regulatory co-operation, transparency or both.

In many cases, RTAs will integrate at least two of these approaches: more traditional trade agreements will rely on the first two whereas recent and more modern RTAs (e.g., CETA, Pacific Alliance) include all three approaches.

Broad provisions incorporating regulatory co-operation group different approaches, namely mutual recognition or equivalence, harmonisation, and use of international standards. RTAs often integrate and sometimes deepen the provisions of the WTO Agreements provisions and address new topics (WTO plus or WTO beyond commitments). Over 77% and 74% of RTAs signed since 2001 include text affirming the WTO's TBT and SPS Agreements, respectively (Lejárraga, 2014). Some RTAs include regulatory co-operation provisions within specific TBT and SPS chapters. One of the most recurrent ways in which regulatory co-operation is promoted is through exchange of information and creation of a joint committee or working group tasked to implement the chapter and create co-operation opportunities among the parties. The mandates of these committees or groups are typically broadly defined and little is known about their effectiveness.

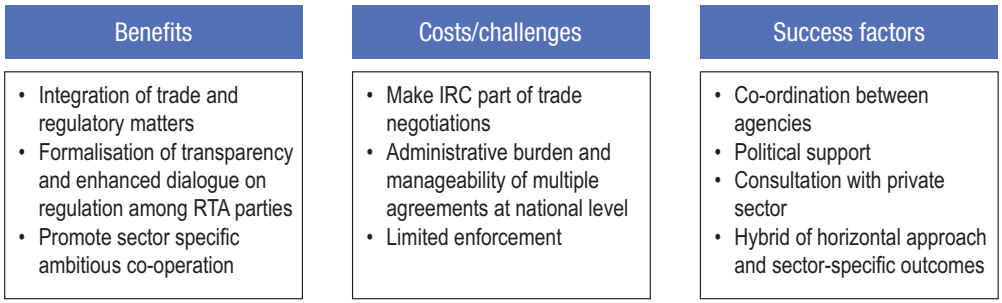
With respect to mutual recognition or equivalence, a notable feature particularly relevant for IRC is that many RTAs require the partners to justify non-use of certain tools for regulatory alignment. For example, many FTAs encourage, and some (e.g., Singapore-New Zealand, Trans-Pacific Strategic Economic Agreement) even require, parties to consider the technical regulations or standards of other parties as equivalent. If a party does not accept a regulation of another party as equivalent, it must upon request explain its reasons for non-acceptance. A similar obligation to explain may apply also in respect to a refusal to accept the results of conformity assessment procedures conducted in the territory of the other party (Lesser, 2007). This forces regulators to base such decisions on well-founded evaluations and involves a greater level of commitment from each party.

In recent years, many RTAs have shifted from having a few transparency provisions applicable to specific chapters to incorporating entire (horizontal) chapters dedicated to transparency and setting more detailed and prescriptive standards leaving no doubt about the high importance that countries accord to this aspect. The value of horizontal chapters is to ensure the same transparency standards across all border and behind-the-border measures and sectors covered by the agreements. Such consistency is expected to be favourable for business conduct across borders. Lejárraga and Shepherd (2013) shows that for some sectors horizontal transparency measures appear to have greater trade effects than area-specific ones, namely transparency provisions contained in the chapter on agriculture, SPS measures and TBTs, which are not significant. In fact,

Lejárraga and Shepherd show that transparency acts as a "trade boosting agent": they found that, on average, each additional transparency obligation is associated with an increase in trade of over 1%. Recently developed RTAs (e.g., the CETA) have also started dedicating a chapter specifically to regulatory coherence or to regulatory co-operation, committing the parties to observe a minimum level of GRP or of co-operation in regulatory matters. However, while there is a set of principles agreed by OECD countries on regulatory policy that can serve as a basis for a minimum set of rules for a horizontal GRP chapter, such a common understanding has not developed yet in the area of IRC.

Finally, several RTAs elaborate sector-specific commitments in respect to using international standards, encouraging or implementing mutual recognition or more closely aligning the regulatory approaches of the partners. Sectors relatively frequently singled out for specific commitments include pharmaceutical products, medical devices, or chemical products, although some countries have included other sectors. For example, the vehicle sector is subject to specific regulatory co-operation commitments in the agreements between Korea and the US, and between Korea and the EU. Both agreements underline the importance of encouraging harmonisation of standards for motor vehicle environmental performance and safety, including in the World Forum for Harmonization of Vehicle Regulations (WP.29).

Figure 2.6. **Summary of benefits, costs and success factors of RTAs**



RTAs provide countries with a platform to initiate co-operation first by exchanging information and building trust and then by inserting specific commitments and regulatory co-operation that are specific to these parties. It is a forum where parties can address trade costs related to regulatory heterogeneity by negotiating customised solutions in the agreement itself or by canvassing a modus operandi for different IRC instruments. They also provide the opportunity to pilot ambitious co-operation initiatives on specific sectors, before it can be scaled up to the international level.

Through horizontal chapters on transparency and regulatory co-operation or coherence, RTAs encourage countries to level their GRPs and increase sharing information. However the creation of many committees may create overlap and a "co-operation fatigue" – RTAs usually establish different committees to monitor the implementation of the agreement or specific chapters. The proliferation of these committees resulting from membership in multiple RTAs raises questions of governance and efficiency within participating countries.

In many cases regulatory co-operation provisions in RTAs put in place mainly non-binding commitments and are not subject to dispute settlement chapters. The best-endeavour language and the non-enforcement nature of these dispositions limit their application and enforcement. While such soft language of IRC provisions may not be sufficient to incentivize countries to fully engage in co-operation, it is also a pragmatic approach to accommodate the realities of countries with different regulatory systems. They can initiate co-operation processes amongst a range of countries with different levels of economic development and different regulatory systems. The eventual success of those processes to reduce avoidable trade frictions related to regulatory heterogeneity will depend on continued political support as well as on engagement by industry.

Multilateral WTO disciplines: Promoting transparency and IRC at a global scale

The multilateral rules of the GATT and now WTO system leave member countries free to regulate to protect human, animal or plant life or health, provided that such regulation does not discriminate or serve as disguised protectionism of domestic producers over foreign competitors. Two agreements, the Agreements on Technical Barriers to Trade (TBT) and on the Application of Sanitary and Phytosanitary Measures (SPS) are specifically designed to address domestic regulatory development in respect to potential adverse effects on trade in goods. The former deals with technical standards, regulations and associated assessment of conformity of products in general. The SPS Agreement deals exclusively with the control of specific risks to food safety, plant and animal health by way of a wide range of measures, including inspection of products, specific treatment and permissible residue and food additive standards.

Regulatory co-operation is not explicitly mentioned in the TBT or SPS Agreements. However, it is implicit in i) transparency procedures keeping members informed of each other's regulatory frameworks and measures affecting trade. ii) various mechanisms which members are encouraged to

pursue in order to reduce regulatory diversity and associated trade costs, and iii) information exchange taking place in the committees on GRP.

Transparency safeguards international trade against discrimination and other interferences caused by regulations, standards and conformity assessment procedures, helps the private sector to adjust to changing regulatory policies, and ultimately prevents trade disputes from occurring. Considerable importance is therefore attached by WTO members to rules and procedures of the TBT and SPS Agreements giving them advance knowledge of other WTO members' regulatory measures and the right to express their views before they enter into force.

Both committees have procedures allowing members to raise issues ("specific trade concerns" – STCs) in respect to specific TBT or SPS measures of other WTO members. The review of STCs is the core item of regular meetings. The review is not mandated by the TBT and SPS Agreement but was set up by the Committees to implement their respective mandates of giving members the opportunity of consulting on any matter relating to the implementation and operation of the Agreements. Members are using it to raise and express concerns about regulatory activity in other members, especially notified proposed measures. This discussion contributes to transparency when, for example, a country is asked to explain the choice of a specific measure and whether it has considered regulatory alternatives that may be less trade-restrictive, or why it has not used an international standard. Descriptive detail with respect to measures' negative trade effects varies, but trade costs are rarely quantified. Regulators of the exchanging parties are inevitably drawn into the search for mutually acceptable solutions.

In order to minimise obstacles to trade that could be created by differences in regulations, standards and associated procedures for ensuring conformity, the TBT and SPS Agreements go beyond promoting transparency and strongly encourage:

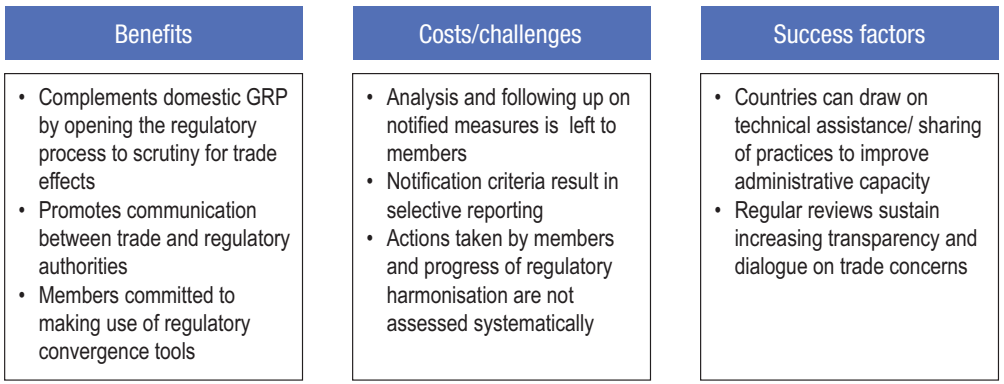
- Participation in the elaboration of international standards, guides and recommendations for regulations and conformity assessment procedures[11] – for example standardised procedures for risk assessment or for testing whether specific products perform reliably, are safe and of good quality – and their use unless this would be ineffective or inappropriate to national needs.
- Acceptance of the regulations of other members as equivalent, even when different, provided these adequately fulfil regulatory objectives, and of other members' conformity assessment procedures or of assessment results if these are shown to provide

equivalent assurance of conformity. This may take the form of mutual recognition agreements.

Both committees have made substantial efforts to help members better understand and to facilitate implementation of these approaches. Work methods emphasise voluntary sharing of national or regional practices and experiences bringing to the table a variety of stakeholders (e.g., regulators, CA bodies, standardisation organisations, businesses), and elaboration of guidance documents for use at the policy level. Examples are the *Indicative List of Approaches to Facilitate the Acceptance of the Results of Conformity Assessment*, prepared by the TBT Committee, and the SPS Committee's *Decision on Equivalence* describing the procedures and steps that ought to be followed when requesting and granting recognition of equivalence.[12]

Finally, both committees have discussed GRP, the TBT Committee including this topic as a standing item of its work since the agreement's entry into force.[13] The role of regulatory impact assessment (RIA) has been discussed and members are encouraged to give access to RIAs or similar assessments when notifying draft TBT measures (with limited results so far). Members recently finished assembling a list of voluntary GRP mechanisms and principles applicable to various obligations of the TBT Agreement, covering the entire regulatory life cycle.

Figure 2.7. **Summary of benefits, costs and success factors of WTO transparency and IRC disciplines**



The WTO mechanisms provide the most inclusive transparency system available for regulation affecting trade in goods – 164 governments keep each other informed about regulatory activity affecting international trade and discuss them at the draft stage, collaborating both bilaterally and multilaterally to achieve less trade restrictive regulations. Periodic reviews improve the system continuously. With WTO members' adoption in 2014 of

the Trade Facilitation Agreement (TFA) how administration of TBT and SPS measures at border point affects ease of exporting and importing may receive more attention, including from a transparency angle. The TFA *inter alia* requires parties to publish all procedures for importation and exportation, including required forms. Some of these relate to SPS and TBT measures. Information earlier reserved for governments can now be accessed also by non-governmental actors and the public.

Members are obligated to notify new or modified TBT and SPS measures having potentially significant trade effects. The trade effects can be *negative or positive* and "harmonisation", "trade facilitation" and "lowering or removal of trade barriers" are three stated objectives and rationales accounting together for a modest share of submitted notifications. Members must notify also MRAs and other agreements reached with one or more countries on issues related to technical regulations, standards or conformity assessment procedures which may affect trade significantly. On the SPS end, they are to notify the conclusion of agreements between members which recognise the equivalence of SPS measures (but only two have been reported, dating back to the late 2000s). Under recently revised notification procedures, they are to indicate when a notified SPS measure facilitates trade. Progress has been made to improve the quality of this reporting, but the Committees are not engaged in analysis of this pool of notified information (or of information available elsewhere in WTO).[14]

The volume of annually submitted notifications fluctuates but has grown over time, with developing countries becoming more active contributors in recent years. The comment procedure is favourable to national co-ordination linking up trade and regulatory authorities and input from businesses and other stakeholders affected by a notified proposed regulation. It also gives regulatory authorities a strong incentive for bilateral dialogue over voiced concerns. A country can request bilateral consultations if its comments have not been properly addressed answered or to raise the matter as an STC in the Committee.

The STC review mechanism is viewed as settling issues quite effectively and preventing them from becoming formal disputes under the WTO's dispute settlement system (Horn et al, 2013). It is used regularly and there have been important periodic spikes in the volume of newly raised concerns, yet very few STCs go to the WTO DSU for dispute settlement. Either the countries involved report when STCs have been resolved or STCs simply disappear from the agenda of the discussion. There are no records kept on *how* the concerns raised have been solved, although members are encouraged to inform the committees on resolved STCs.

However, not all WTO members administer the transparency procedures routinely. With the volume of documents steadily increasing, managing the flow of notifications, co-ordinating at the national level, and taking advantage of the information becoming available places demands on technical assistance for countries with less developed capacity.

More generally, the information exchange provides only impressions with regard to the actual use of IRC mechanisms for regulatory convergence – use of international standards, binding or voluntary co-operation agreements directly involving regulators, agreements among (private) conformity assessment or accreditation bodies and their recognition by regulators. There is no procedure in place for systematic stocktaking covering the whole WTO membership. With no effective monitoring in place, the extent of convergence occurring over time, based on which IRC mechanism, for which components of regulatory policy (specifications or conformity assessment procedures), and for which product markets, is not known.

Notes

1. As acknowledged by OECD countries in endorsing and committing to implementing the 2012 OECD Recommendation on Regulatory Policy and Governance: www.oecd.org/gov/regulatory-policy/2012-recommendation.htm.

2. See OECD work with non-member countries at: www.oecd.org/gov/regulatory-policy/non-member-countries.htm and the monitoring of self-assessment undertaken under the APEC-OECD Checklist on Regulatory Reform: http://apec.org/Groups/Economic-Committee/Toolkit-for-Structural-Reform/APEC-OECD-Integrated-Checklist.aspx.

3. The TBT Committee has established a set of six principles that help identify whether a standard may be considered an international standard under the TBT Agreement: transparency, openness, impartiality and consensus, effectiveness and relevance, coherence, and the development dimension (WTO, 2000). The SPS Agreement explicitly cites the standards of the Codex Alimentarius, the OIE, and the Secretariat of the International Plant Protection Convention.

4. For example, Article 2.4 of the TBT Agreement stipulates: "Where technical regulations are required and relevant international standards exist or their completion is imminent, Members shall use them, or the relevant parts of them, as a basis for their technical regulations except when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems".

5. https://industry.gov.au/industry/IndustryInitiatives/PortfolioRegulationReform/Using-Standards-and-Risk-Assessments-in-Policy-Regulation/Pages/default.aspx.

6. See Office of Management and Budget Circular A-119 "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/revised_circular_a-119_as_of_1_22.pdf.

7. See www.usda-eu.org/trade-with-the-eu/trade-agreements/us-eu-organic-arrangement/.

8. www.bipm.org/en/cipm-mra.

9. www.ilac.org/ilacarrangement.html.

10. www.iaf.nu.

11. For food safety and animal and plant health, under the SPS Agreement the term international standards refers expressly to those elaborated by the Codex Alimentarius Commission (CAC), the International Office of Epizootics (OIE) and the International Plant Protection Convention (IPPC). In the TBT Agreement, no specific international bodies are identified; and the TBT Committee adopted in 2000 a set of principles that clarifies the concept of international standards under the Agreement (see the section on international standards) Standards developed by standardisation bodies that follow these procedural criteria are presumed to be effective and relevant on a global basis and hence contributing to the goal of avoiding or reducing unnecessary obstacles to trade.

12. WTO, G/TBT/1/Rev12, Annex 1 (Part 1); and G/SPS/19/Rev.2.

13. "Good Regulatory Practice (GRP) can contribute to the improved and effective implementation of the …TBT Agreement. Effective implementation through best practices is seen as an important means of avoiding and minimising unnecessary technical barriers to trade..." WTO, G/TBT/26, para. 5, p. 2.

14. In the late 2000s, notification formats for TBT and SPS measures were amended to ask governments to indicate whether or not an international standard exists, give a reference, and whether the notified proposed measure is consistent or whether it deviates and the reason for this. Basic statistical information for this reporting activity is published for SPS measures. Many notifications do not provide this information.

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Chapter 3

Conclusion: Considerations to reduce trade costs through IRC

In conclusion, this chapter builds on the lessons learnt from the large range of OECD and other work underpinning this report to draw a list of considerations to reduce trade costs through IRC. It identifies the generic measures that countries can take that promote regulatory quality and trade and highlights the considerations that can drive the selection of specific IRC approaches.

Trade costs may arise from unintended regulatory heterogeneity. They involve the costs for traders of gathering information on regulations that apply in different jurisdictions, of adjusting products and production processes to different regulatory requirements, and of proving conformity to such requirements. Differences in local conditions, domestic preferences and policy objectives may justify variations in regulations. However, given the still limited consideration of the international environment in rule-making, it is likely that some of the trade costs of regulatory divergence are avoidable without compromising the quality of regulatory protection.

Looking ahead and building on the lessons learnt from the large range of OECD and other work underpinning this report, the conclusion draws together a preliminary list of considerations to reduce trade costs through IRC. It identifies the generic measures that countries can take that promote regulatory quality and trade. It highlights the considerations that can drive the selection of specific IRC approaches – building on the characteristics of IRC mechanisms and drawing from structural factors.

Unilaterally, good regulatory practices in principle provide an opportunity to include the consideration of trade costs (and more generally of the international environment) in the design of new or amended rules. In practice, however, the measurement and consideration of trade costs and more generally of the broader regulatory environment remains partial, partly because the main task of regulators focuses on achieving specific domestic objectives (such as safety, health, environment and consumer protection), but also because of resource and other constraints.

Beyond what is possible through unilateral action and information exchange alone, co-operation through bi- or pluri-lateral agreements may allow to further reduce regulatory heterogeneity. Such agreements require that regulators of different countries join their efforts to better align their rules, thereby generating trade cost reductions that would not be possible if each country acted independently and hence improving participants' welfare. Given that such an agreement, while benefiting all participants, creates incentives for each country to deviate by changing its regulations closer to its original preferences, such an outcome can only be stable if embedded in sufficient confidence or enforcement mechanisms.

Generic measures

They are good across the board and do not raise trade-offs between trade costs and regulatory objectives.

- **Increase transparency of regulatory frameworks** – domestically and multilaterally to systematically address information costs

The information cost of regulatory divergence is the easiest to address – it requires transparency about regulation. Increasing access to information about regulatory frameworks should be done domestically (through, for instance, one stop shop and web portals providing a unique point of contact for regulations affecting specific sectors or areas) and multilaterally through WTO mechanisms.

- **Apply more systematically the disciplines of regulatory policy** (good regulatory practices) – they promote both regulatory quality and trade

Beyond addressing the information costs through increased transparency, GRP foster regulatory quality by providing the conditions for evidence-based and fit for purpose regulations. By channelling trade concerns – along with other considerations – and promoting the collection and discussion of evidence on the impacts of regulation, they also help to reduce unnecessary and unintentional trade frictions. The *2012 OECD Recommendation on Regulatory Policy and Governance* sets out the measures that governments can take to promote regulatory quality and ensure continued relevance of the regulatory framework in the face of continuous changes. The *2015 Regulatory Policy Outlook* shows that there is still room for further uptake of these reforms in OECD countries and beyond.

- **Consider more systematically international standards in the development and revision of regulation** – they drive regulatory convergence globally, cutting specification and conformity assessment costs, while preserving the flexibility to regulate domestically.

In the context where regulatory harmonisation through joint supra-national institutions is difficult to achieve, international standards offer a significant alternative. Their adoption in national legislation supports regulatory convergence while preserving the flexibility for regulators to account for local specificity. Given their potential to harmonise product specifications and conformity assessment methods (including testing methods) internationally, and hence to radically cut specification and conformity assessment costs across value chains, they should be considered more systematically in the adoption and revision of technical regulations. At the same time, there should be increased confidence that international standards are fit for purpose.

- **Engage early on new areas of regulation** (e.g. related to new technologies) – it is likely to be less costly than amending later on regulations that are developed independently.

Given the costs associated with making changes to existing regulations, a specific focus should be given to areas where new regulations are required across countries, for instance due to new technological developments that require public rules which, without co-operation, could generate substantial new trade costs in emerging sector markets.

Selecting the appropriate IRC approaches

They will depend on the trade costs raised by regulatory divergence, structural factors and the balances of benefits and costs of adopting a specific regulatory co-operation approach. Trade costs need to be balanced against domestic regulatory objectives and some insurance that the control over compliance for imported products through conformity assessment procedures will be effective.

- **Consider the trade costs of regulatory divergence** – prioritisation on the basis of trade cost evidence will determine where to focus and how to act in a specific country and sector context.

Depending on which cost needs to be addressed (information, specification or conformity assessment costs – relevant cost elements should be identified at as detailed a level as possible), co-operation efforts will mainly need to focus on transparency, regulatory alignment or conformity assessment procedures. Convergence in rules, harmonisation of conformity assessment methods and simplification and recognition of conformity assessment procedures also reduce information requirements for trading firms and, hence, information costs.

- **Consider the structural factors that will impact the case for IRC** (i.e. its value vs. the costs of developing and maintaining co-operation) and ultimately its success. A number of structural factors strongly impact the likelihood of success of IRC (OECD, 2016):
  - **Geographical proximity**: geographical proximity increases the need and likelihood of co-operation due to joint challenges, similar worldviews and preferences.
  - **Economic interdependence**: high trade volumes increase the likelihood for co-operation to lock in a certain level of regulatory openness and to lower trade costs through the dismantling of unnecessary regulatory divergence. But while a balanced trade relationship will promote the use of negotiated IRC instruments, an imbalanced one will promote the unilateral adoption of regulation from the country most dependent on the trade relationship.

- **Political and economic properties of potential partners**: IRC has proved easier between rule-makers and rule-takers than among rule-makers or rule-takers. In non-hierarchical complex relationships, the availability of international regulation and standards should significantly facilitate IRC.
- **Nature of regulation**: the political sensitivity of regulation – i.e. their inherent risk levels or social and economic nature – impacts the likelihood of IRC. IRC on politically sensitive measures should be more difficult than IRC on less sensitive measures.

- **Consider the characteristics of various IRC approaches and mechanisms to address trade costs.**
  - **Multilateral approaches to IRC are harder to develop and sustain.** However, from a trade costs perspective, they are more likely to bring about the expected benefits and avoid potentially significant trade diversion that may harm both co-operating and third countries.
  - **The WTO already provides a multilateral platform for exchange of information on new regulation. Its role could be strengthened.** Assessment of the trade effects of IRC approaches would be facilitated by greater transparency of countries' use of IRC mechanisms for trade purposes. Towards that end, WTO members could strengthen their reporting of regulatory alignment measures under the notification provisions of the TBT and SPS Agreements and engage a regular review of this information.
  - **There is space for bilateral and regional approaches**. Co-operation involving a smaller number of countries (typically through RTAs) and aiming at concrete, politically supported and binding outcomes are more likely to be implemented and to yield noticeable reductions in trade costs. At the same time, however, the limitation of the regional coverage restricts the global benefits co-operation can bring about and risks to generate potentially significant trade diversion effects. They should therefore be used in support of international approaches. They can provide for instance the opportunity to pilot an ambitious co-operation agreement on a specific sector, driven by a specific market, before it can be scaled up to the international level.

– **Cross-border frameworks for mutual recognition can help on specification and conformity assessment costs.** In sectors where science and technology are clear, trade value is high, regulations across jurisdictions differ, but not too much, traditional governmental MRAs can help cut trade costs. Although perceived as expensive to develop and maintain, they have nevertheless proved effective to cut trade costs in a number of sectors with complex GVCs, while respecting the respective regulatory frameworks of partners. There is variety of other governmental and non-governmental recognition frameworks that can also be considered by regulators.

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UNDERSTANDING THE TRADE COSTS OF REGULATORY DIVERGENCE AND THE REMEDIES

Regulatory differences across jurisdictions can be costly for traders. While these costs may reflect variations in domestic conditions and preferences, they may also be the result of rule-making processes working in isolation and of a lack of consideration for the international environment. Thus, some of the trade costs of regulatory divergence may be avoided without compromising the quality of regulatory protection. Building on lessons learnt from OECD analytical work and the experiences of OECD countries in regulatory policy and trade, this report proposes a definition of trade costs of regulatory divergence and analyses various approaches to addressing them, including unilateral, bilateral and multilateral approaches. It focuses on the contribution of good regulatory practices, the adoption of international standards, and the use of cross-border recognition frameworks and trade agreements. Based on this, the report provides indications for policy makers on how to reduce trade costs through international regulatory co-operation.

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