Product Market Regulation Indicators

A detailed explanation of the methodology used to build the OECD PMR indicators

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A detailed explanation of the methodology used to build the OECD PMR indicators

This note explains in some detail the approach used by the OECD to build the latest vintage of the PMR economy-wide and sector indicators.

PMRindicators@oecd.org

A detailed explanation of the methodology used to build the OECD PMR indicators

1. In 1998, the OECD developed a set of indicators of product market regulation (PMR) in order to measure a country's regulatory barriers to competition and to track reform progress over time. This set included a PMR economy-wide indicator and a group of indicators that measure regulation at the sector level, which are referred to as PMR sector indicators. The PMR indicators have been updated every five years since then.

2. Over time, the PMR indicators have become an essential element of the OECD's policy analysis toolkit, as they enhance the knowledge of regulatory practices in individual countries and permit the investigation of their link with economic performance. The PMR indicators form an integral part of the Going for Growth exercise and the OECD Economic Surveys, where they are used to formulate recommendations for policy reforms. These indicators and their underlying database are also widely used by national governments, other international organisations (e.g. IMF, WB, and European Union), and international forums, such as the G20 and APEC, to determine areas for regulatory change. Academics and research institutions also employ largely the PMR indicators, as it is the most extensive quantitative measure of the state of regulation in the markets for goods and services currently available.

3. This note provides a detailed explanation of the methodology used to build the PMR indicators for the 2023 update.

4. This note is completed by Annex A, which explains in detail the additional sources of information used to compile the PMR database.

The PMR indicators

5. The PMR indicators are based on an extensive database, which is prepared by the OECD relying on the answers to a questionnaire compiled by national authorities.

6. The information included in the database is used to build two sets of indicators: an economy-wide indicator, which provides a general quantitative measure of a country's regulatory stance, and a group of sector indicators, which focus on regulation at the level of specific network and service sectors.

7. To calculate the indicators, the qualitative information is transformed into quantitative information by assigning a numerical value to each answer. The coding is based on accepted international best practices, which are summarised in the 2023 PMR schemata (available on the PMR webpage). The coded information is normalised over a zero to six scale, where a lower value reflects a more competition-friendly

regulatory stance. This information is then incorporated through a bottom-up approach into the two sets of indicators. This bottom-up approach allows tracing indicator scores back to individual policies.

8. The information refers to laws and regulations in force in the countries surveyed at a specific point in time. For most OECD countries included in the latest vintage, the information refers to 1 January 2023. However, for some countries, where the data collection was undertaken at a later stage, the information refers to a later date. The database available on the PMR webpage contains further details on the reference year for each country.

9. The information mostly captures the *'de jure'* policy settings. This means that the answers are not based on 'subjective' assessments by market participants, as in opinion surveys, and that they do not reflect the actual enforcement of the laws. These two aspects make the indicators' comparability across countries more reliable by insulating them from context-specific assessments, and by allowing the OECD to verify the reliability and precision of the answer. However, this entails that the extent and manner in which laws and regulations are applied are hardly reflected in the indicators. Hence, a country that has laws "in the books" that are competition-friendly, but does not enforce them, would still obtain a favourable score.

Box 1. De facto questions in the PMR indicators

The PMR indicators are mostly based on information about '*de jure'* policy settings that capture the laws and regulations in force in the country as explained above. However, in certain cases, the indicators inquire about '*de facto'* information about the effective application of these laws and regulations. This allows a more nuanced evaluation of the country's regulatory environment. The de facto information is based on verifiable sources that enable cross-country comparison.

Below are some examples of such de facto information included in the PMR indicators:

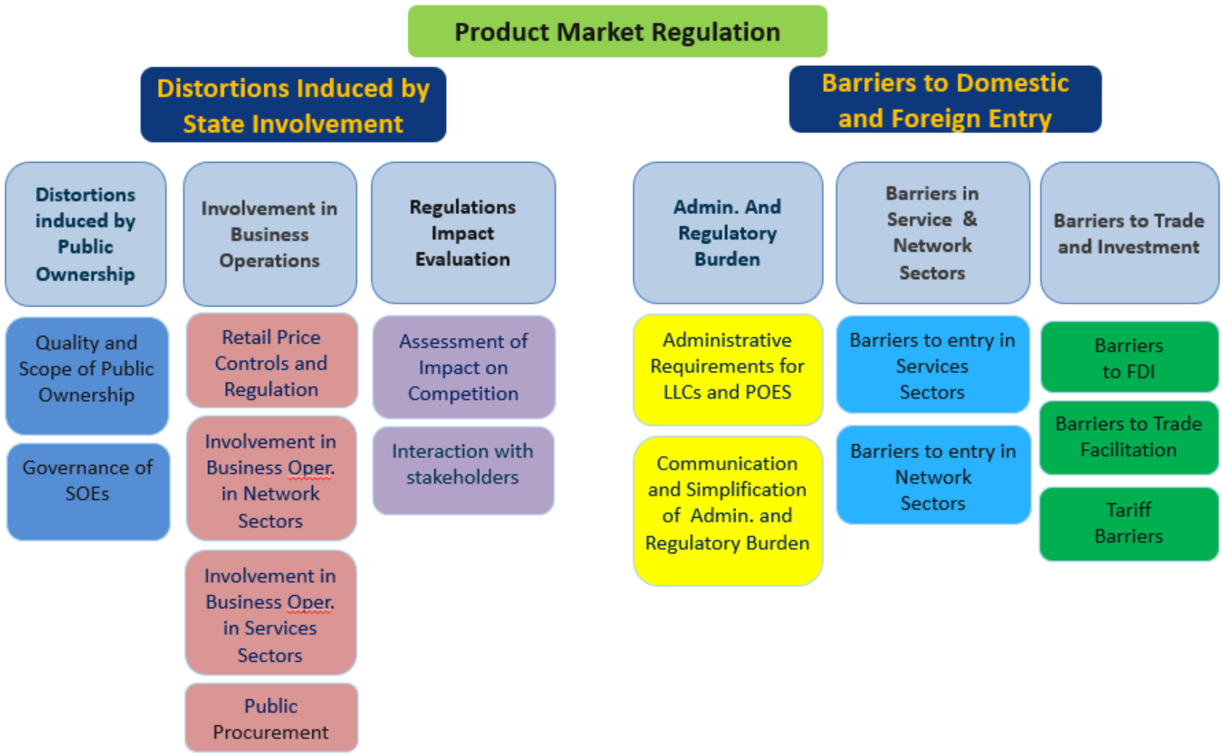
- If there is an electricity/gas exchange market, what is the percentage of the total annual electricity/gas supply that was traded on this exchange market in 2021?
- If at least some consumers have the legal right to choose their supplier, what percentage of these consumers has switched their retail electricity/gas supplier in 2021?
- Is there at least one independent retail price comparison tool available for domestic consumers to compare the offers (including tariffs) of electricity/gas retail suppliers?
- Is there an electronic platform where network operators are required to publish information on the occupation level of all elements of the passive network infrastructure for the provision of e-communication services?
- What form of vertical separation effectively exists between port authorities and operators of terminal facilities offering commercial services in sea- and coastal and inland ports?

The PMR economy-wide indicator

10. The structure of the PMR indicators reflects its content. The economy-wide indicator is composed of two high-level indicators, which focus on the two major areas that influence how markets for goods and services are regulated: state involvement in the economy, and barriers to entry and expansion faced by domestic and foreign firms.

11. Each of these high-level indicators is composed of three medium-level indicators. Each medium-level indicator is composed of low-level indicators that focus on specific regulatory domains (Figure 1).

Figure 1. The structure and content of the PMR economy-wide indicator (2023 update)



Distortions Induced by State Involvement

12. The first high-level component of the PMR economy-wide indicator, ***Distortions Induced by State Involvement***, captures the degree to which the involvement of the state distorts competition through the control and governance of various firms, and through the imposition of other forms of obligations on private firms. It also captures the way in which new and existing regulations are evaluated to minimize the impact on competition, and the nature of rules that discipline the public procurement of goods, services, and public works.

13. Its three mid-level components focus on:

1. The prevalence of state-owned enterprises in the economy and the quality of their governance (*Distortions induced by Public Ownership)*,
2. Controls and obligations imposed on private firms (e.g. price regulation) including the rules regulating public procurement (*Involvement in Business Operations*), and
3. Rules in place to evaluate new and existing regulations to minimize negative impacts on competition, and the regulation of the interaction between stakeholders and policymakers, (*Regulations Impact Evaluation*).

14. The 8 low-level indicators focus each on a specific regulatory area, more specifically:

- *Quality and Scope of Public Ownership:* This low-level indicator is given by the combination of two measures: i) *Scope of Direct and Indirect Control of firms by the State*, which measures whether the government controls directly or indirectly, via special voting rights, at least one firm in 24 sectors (including 7 network sectors), and ii) *Governance of SOEs* (see the description under the following bullet point). These two measures are interacted according to the following formula to produce this low-level indicator:

Scope of Direct and Indirect Control of firms by the State(Governance of SOEs/6)*

- *Governance of SOEs:* measures the rationale for public ownership, the degree of insulation from market discipline, the degree of political inference in SOE operations, and the arrangement of Public Services Obligations.
- *Retail Price Controls and Regulation*: measures the extent and type of retail price controls in the key network and service sectors, as well as in the retail distribution of certain goods and services.
- *Involvement in Business Operations in Network Sectors*: measures the extent to which the government imposes restrictions on the conduct of firms in key network sectors (e.g. regulation of fixed and mobile number portability, constraints on the ability of airlines to choose the routes to serve or the frequency of the flights to offer).
- *Involvement in Business Operations in Services Sectors*: measures the extent to which the government imposes restrictions on the conduct of firms in key service sectors (e.g. restrictions on the ownership and legal form of professional firms, restrictions on the geographic location of pharmacies, regulation of retail shop opening hours).
- *Public procurement*: measures the degree to which procurement rules ensure a level playing field for all firms in access to public contracts for the provision of goods, services, and public works.
- *Assessment of Impact on Competition*: measures the level of assessment of the impact of new and existing regulations on competition to ensure minimization of distortions to competition. For OECD countries, this indicator partially relies on the regulatory policy and governance (iREG) database developed by the OECD Directorate for Public Governance[1].
- *Interaction with Stakeholders*: measures the existence of rules for engaging stakeholders in the design of new regulations to reduce unnecessary restrictions to competition and for ensuring transparency in lobbying activities. For OECD countries, this indicator also partially relies on the iREG database.

15. For more information on the use of the iREG database in the computation of the PMR indicators, please refer to Annex A.

Barriers to Domestic and Foreign Entry

16. The second high-level component of the economy-wide PMR indicator, ***Barriers to Domestic and Foreign Entry***, includes information on the level of the barriers to entry and expansion of domestic and foreign firms in various sectors of the economy.

17. Its three mid-level components focus on:

   1. The administrative and regulatory burdens that new firms have to face to start their business (*Administrative and Regulatory Burden*),
   2. The qualitative and quantitative barriers firms face to enter specific key economic sectors (*Barriers in Service and Network Sectors*),
   3. The barriers that could limit the access to domestic markets of foreign firms and foreign investors (*Barriers to Trade and Investment*).

18. The 7 low-level indicators focus each on a specific regulatory area, more specifically:

[1] More information on this database can be found at: https://www.oecd.org/gov/regulatory-policy/indicators-regulatory-policy-and-governance.htm

- *Administrative Requirements for Limited Liability Companies and Personally Owned Enterprises*: measures the administrative requirements necessary to set up new enterprises, including the number of private and public bodies that need to be contacted, the number of procedures required, and the costs of complying with these procedures, with a focus on two specific legal forms: limited liability companies and personally owned enterprises.
- *Communication and Simplification of Administrative and Regulatory Burden*: measures the existence of an online database of all laws and regulations and regulatory agenda, the requirement of plain language drafting of laws and regulations, the principle of risk-proportionality for new licensing requirement, the application of 'silence is consent' rule for issuing new licenses.
- *Barriers to entry in Services Sectors*: measures the extent of the qualitative and quantitative barriers to entry arising from existing regulation in key service sectors.
- *Barriers to entry in Network Sectors*: measures the extent of the qualitative and quantitative barriers to entry arising from existing regulation in network sectors.
- *Barriers to Foreign Direct Investment (FDI)*: measures the restrictiveness of a country's FDI rules in 22 sectors in terms of foreign equity limitations, discriminatory screening or approval mechanisms, restrictions on the employment of foreigners as key personnel, and other operational restrictions. This indicator reflects the value of the FDI Regulatory Restrictiveness Index developed by the OECD Directorate for Financial and Enterprise Affairs.
- *Barriers to Trade Facilitation*: measures non-tariff barriers, including the level of complexity of the technical and legal procedures for international trade, ranging from border procedures to the simplification and harmonisation of trade documents. This indicator reflects the value of the Trade Facilitation Indicators (TFIs) developed by the OECD Trade and Agricultural Directorate.
- *Tariff barriers*: reflect the value of a cross-product average of effectively applied tariffs. The source of the relevant information is the UNCTAD Trade Analysis Information System database.

19. For more information on the use of other indicators and databases in the computation of the PMR indicators, please refer to Annex A.

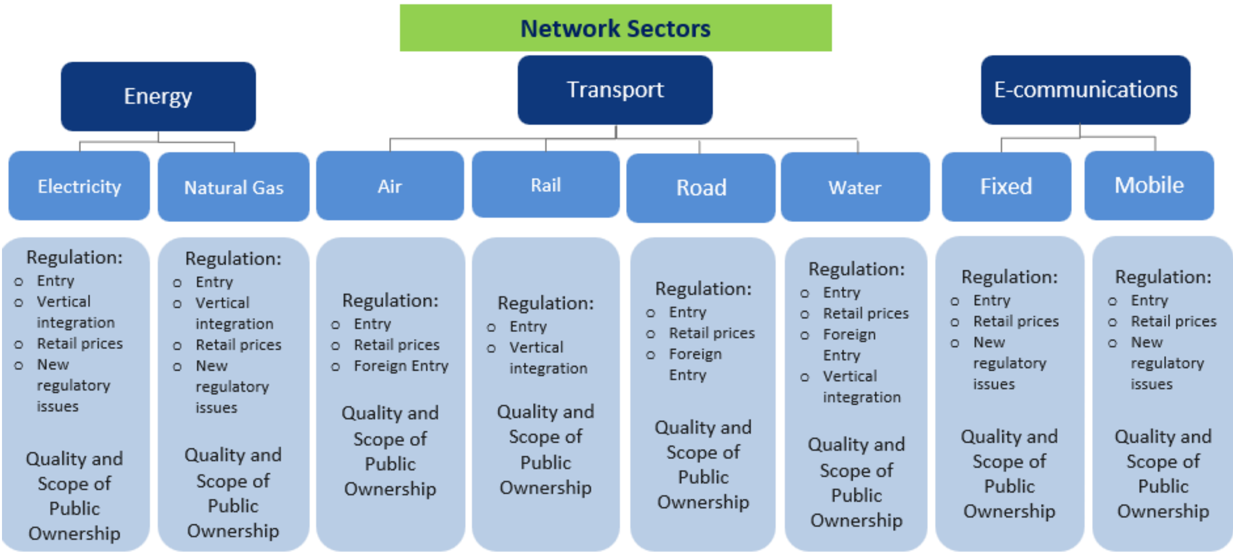
The PMR sector indicators

20. The PMR sector indicators summarize information by sector, and not by regulatory domain, as in the economy-wide indicator. These indicators cover network industries; professional services; retail distribution and retail sale of medicines, and digital markets.

21. The indicators for network industries assess eight sectors: electricity, natural gas, air transport, rail transport, road transport, water transport, as well as fixed and mobile e-communications. Each of these indicators is composed of information on how entry and conduct in the relevant sector is regulated and, on the scope and quality of public ownership.

22. These eight indicators are then aggregated into three indicators, one for each industry (energy, transport and e-communications), and in a single overall indicator for all network industries (Figure 2). This latter indicator is an average of the three industry ones.

Figure 2. Structure of the PMR sector indicators for Network Sectors



23. The services sector indicators cover six professions (accountants, architects, civil engineers, estate agents, lawyers, and notaries), as well as two sectors in retail distribution (general retail trade and retail sales of medicines).

24. There is no aggregate indicator covering all eight sectors given the very different nature of the sectors covered. In addition, there is no single indicator on the regulation of all professional services, because some professions do not exist in all countries and a single average would distort comparisons.

25. The professional services indicators cover information on entry requirements and conduct constraints (Figure 3), whereas the retail trade indicators cover a broad set of regulatory issues, ranging from shop opening hours to retail price regulation, and licensing (Figure 4).

Figure 3. Structure of the PMR sector indicators for Professional Services

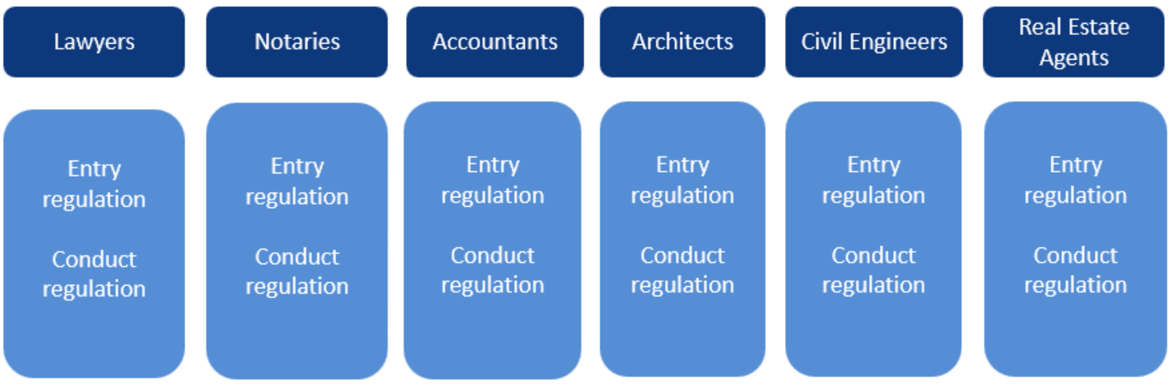
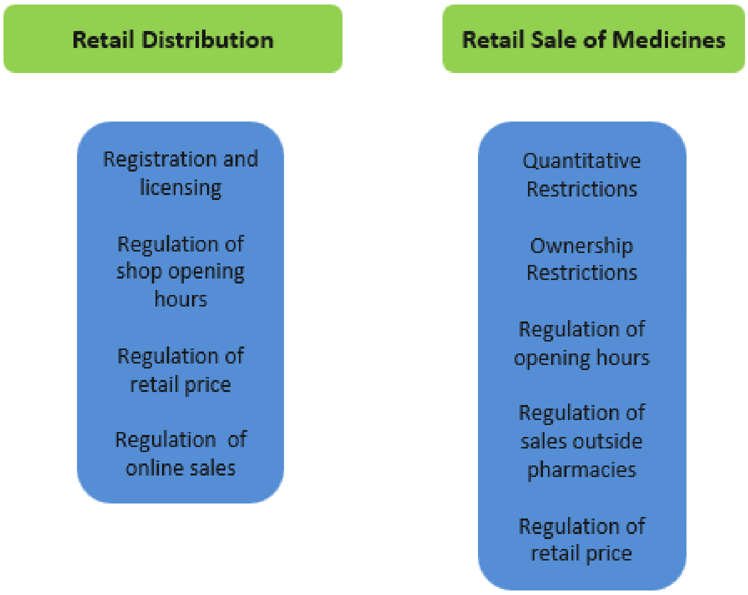


Figure 4. The structure of the PMR sector indicators for Retail Distribution and Retail Sale of Medicines



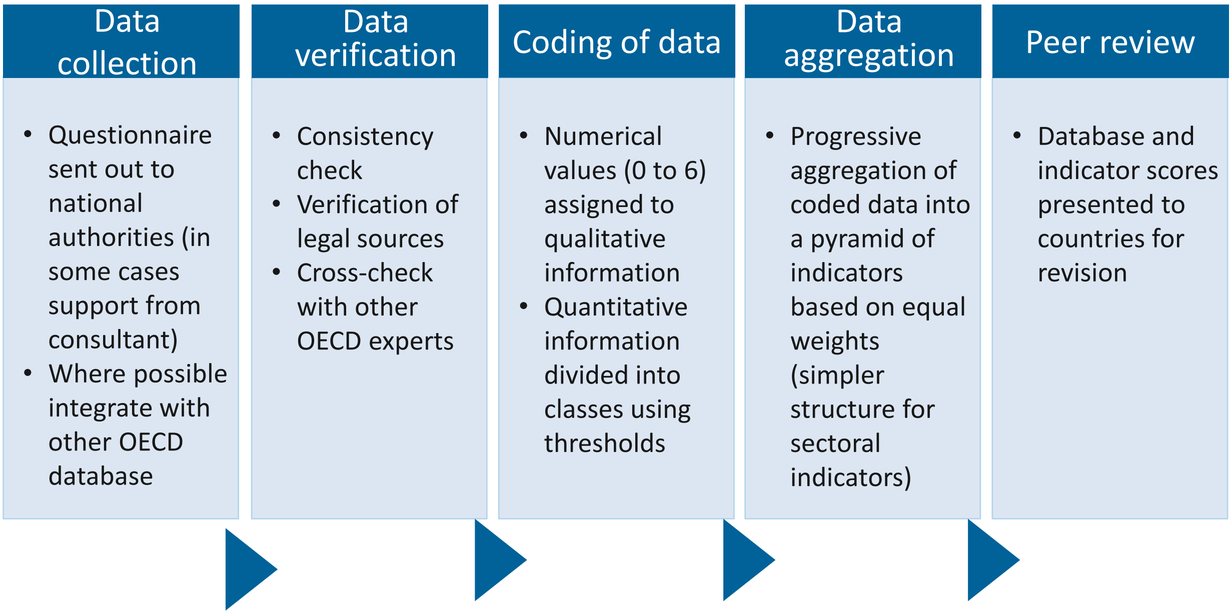
26. The indicator on digital markets (Figure 5) includes information on whether countries perform market studies to understand and assess barriers to competition in these markets, if they have specific merger rules or guidance targeted at digital markets, if they have regulations to ensure fair trading on large platforms for business users, as well as rules on use and access to data and to foster market contestability.

Figure 5. The structure of the PMR sector indicators for Digital markets

Calculating the PMR Indicators

27. The PMR indicators are calculated through a process articulated in many phases (Figure 6).

Figure 6. Process followed to calculate the PMR indicators



How the information is collected[2]

28. The information is collected using a large questionnaire.

29. Each of the countries surveyed appoints a contact person in the public administration, who coordinates the PMR data collection process in his/her country. The point of contact is responsible for identifying the relevant bodies within his/her country that have the competences to answer the various sections of the PMR questionnaire, to distribute the questionnaires, and to ensure the filled in questionnaire is returned to the OECD. He/she also handles all contacts with the OECD concerning the answers to the questionnaire.

30. Once the national authorities have completed the questionnaire, the OECD PMR team proceeds to the verification of the answers. This process is essential to ensure that questions have been correctly interpreted, that the answers are consistent across countries and, where relevant, over time, and that the information provided is in line with similar information held by the OECD (e.g. information collected through other projects). Without these checks the OECD could not guarantee the comparability of the information across countries and, where applicable, over time.

31. To facilitate the verification process, the questionnaire asks national authorities to provide legal references and other supporting information for each of the answers they provide. In addition, where

[2] The approach herein described refers to the OECD PMR indicators. The data collection and verification that leads to the computation of the OECD-WBG PMR indicators, which are the outcome of a joint programme of work between the OECD and the World Bank Group, follows a slightly different process. However, the methodology for verifying and calculating the indicators is the same.

relevant, the OECD team involves experts from other OECD directorates to rely on their country and sectoral knowledge.

32. When doubts or uncertainties about specific answers arise, or when answers are missing, the OECD PMR team requires the relevant country's authorities to provide clarifications or further information. If the authorities do not respond, the OECD PMR team tries to fill the answers using other reliable sources or leaves them as missing answers. The OECD PMR team tries to keep the number of missing answers to the minimum[3].

33. In order to limit the burden imposed on national authorities, the PMR database also draws information directly on other OECD indicators and databases. Further, in one specific area, tariff barriers to trade, the OECD relies on an external dataset: the UNCTAD Trade Analysis Information System database (see Annex A for more details).

Box 2. Representative states used when collecting data on federal countries

The information used to build the PMR indicators refers to laws and regulations in force in the countries surveyed at a specific point in time. These laws and regulations are usually those set by the central government, and for federal countries, this would be the federal government. However, there may be sectors or regulatory areas where laws, regulations, and policies are set by lower levels of government, for example, they may be set at regional level or even at city level. Respondents are then asked to refer to the laws and regulations set at the level that is most relevant in the specific case. For example, regulation of shop opening hours in some countries is set at national level, while in others it is set at city level.

In federal countries, it is often the case that some sectors are regulated at state level, rather than by the central (federal) government. In these circumstances the PMR questionnaire has to be answered with reference to state legislation. The answers should then refer to a state that is considered as representative. The table below shows the designated representative state that is considered for the federal countries for which such a selection has been necessary. In order to ensure that answers are comparable over time this list remains fixed from one PMR vintage to the next one.

Federal Country	PMR representative state
Australia	New South Wales
Brazil	Sao Paolo
Canada	Ontario
Germany	Bavaria
Indonesia	Special Capital Region of Jakarta (DKI Jakarta)
Mexico	Districto Federal de Mexico
Switzerland	Canton of Zurich
USA	New York State

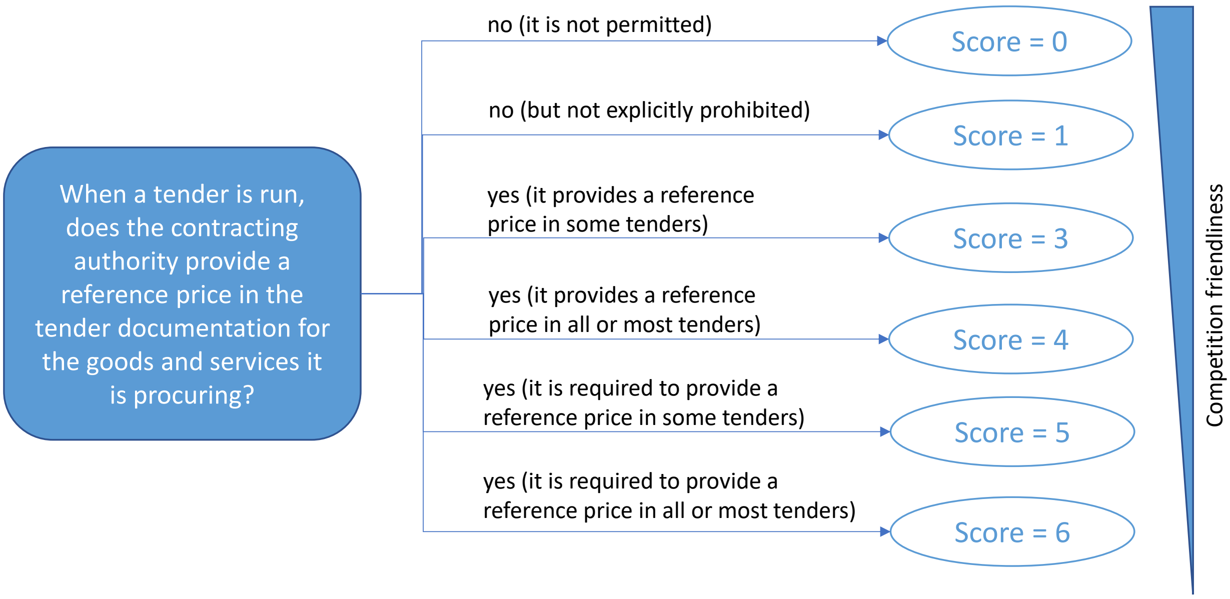
[3] Below the paper explains how missing information is treated when indicators are calculated, as well as what happens if too much information is missing.

The procedure described above does not apply to the questions regarding firm ownership and control. When answering these questions, federal countries are asked to consider all firms that are controlled by all levels of government, excluding municipal, in all the states (and not just in a representative state). This is necessary to ensure comparability with non-federal states, which must consider all firms that are controlled by the various levels of government in their country.

How the information is scored

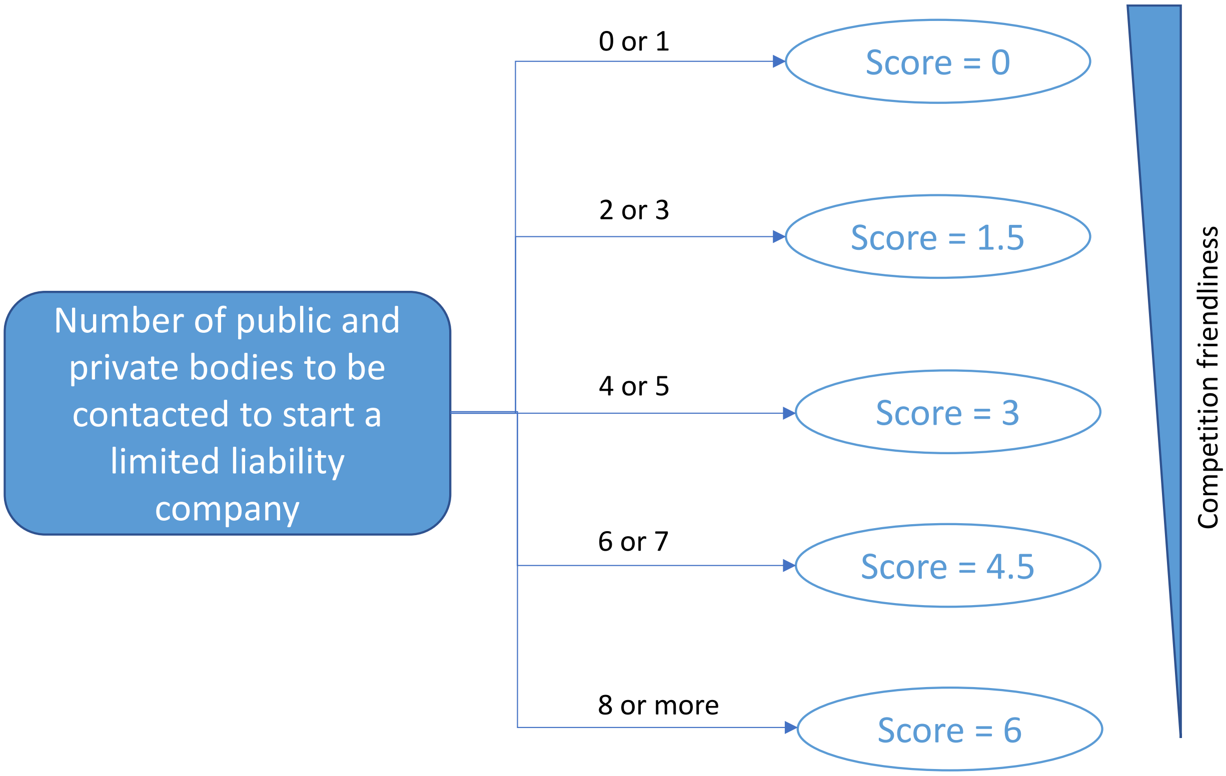
34. When the verification is completed, the OECD team assigns quantitative values to the answers collected (Figure 7). The values range from zero to six, where a lower value reflects a more competition-friendly answer. Zero represents the international best practice.

Figure 7. Example of how an answer providing qualitative information is scored



35. Some questions require the respondent to answer by giving a numerical value, rather than qualitative information. In this case, the possible answers are grouped into classes according to a set of thresholds, and the 0 to 6 values are applied to these classes (Figure 8).

Figure 8. Example of an answer providing quantitative information is scored



36. If an answer is missing, it is not scored. If more than 20% of the data points that are necessary to calculate a low-level indicator are missing, the OECD does not calculate that low-level indicator because it considers the information not sufficient to provide a reliable score. If one low-level indicator is missing, the OECD cannot compute the aggregate PMR economy-wide indicator. Similarly, if more than 20% of the data points that are necessary to calculate a sector indicator are missing, the OECD does not calculate that indicator.

37. The PMR Schemata, available on the PMR dedicated webpage, explain how each answer is scored.

The PMR Schemata

38. The PMR Schemata are three files that explain how the information collected is scored and the weights used to aggregate it into the PMR economy-wide and sector indicators, and digital markets indicator.

39. The PMR Schemata for the economy-wide indicator is composed of 14 tables, one for each low-level indicator, while the PMR Schemata for the sector indicators is composed of 16 tables, one for each sector indicator. The scoring of the questions on digital markets is included in a separate Schemata for the Digital Markets indicator.

40. Figure 9 below provides an example of the structure of these tables by showing the table for one low-level indicator: *Assessment of Impact on Competition.*

Figure 9. Schemata table for the low-level indicator Assessment of Impact on Competition

Table 6. Assessment of Impact on Competition*x

Weight decomposition				Final weight	Coding of answers				
Topic weight	**Intermediate topic weight**	**Data point weight**		**w_i**					
			Regulatory impact assessment						
1/10	1/2		When developing **primary laws**, are regulators required to identify and assess the impacts of the following:		yes		no		
		1/4	The preferred regulatory option	0.0125	0		6		
		1/4	The baseline or 'do nothing' option	0.0125	0		6		
		1/4	Alternative regulatory options	0.0125	0		6		
		1/4	Alternative non-regulatory options	0.0125	0		6		
	1/2		When developing **subordinate regulations**, are regulators required to identify and assess the impacts of the following:		yes		no		
		1/4	The preferred regulatory option	0.0125	0		6		
		1/4	The baseline or 'do nothing' option	0.0125	0		6		
		1/4	Alternative regulatory options	0.0125	0		6		
		1/4	Alternative non-regulatory options	0.0125	0		6		
					yes	yes, but there are rules for exemptions or a threshold	no		
1/10		1/2	Is there a requirement to conduct a Regulatory Impact Assessment to inform the development of **new primary laws**?	0.0500	0	0	6		
		1/2	Is there a requirement to conduct a Regulatory Impact Assessment to inform the development of **new subordinate regulations**?	0.0500	0	0	6		
					yes	no	no /not applicable, RIAs are not required		
1/10			Is a written guidance on the preparation of Regulatory Impact Assessments publicly available ?	0.1000	0	6	6		
1/10			Is a government body - outside the ministry sponsoring the regulation - responsible for reviewing the quality of the Regulatory Impact Assessment?	0.1000	0	6	6		
					yes		no		
1/10		1/2	When developing new **primary laws** are regulators required to assess the impact of these primary laws on competition?	0.0500	0		6		
		1/2	When developing **new subordinate regulations** are regulators required to assess the impact of the new subordinate regulations on competition?	0.0500	0		6		
					yes	no	no / not applicable (assessement of impact on competition not required)		
1/10			Is written guidance publicly available on how to assess the impact of new primary laws and/or secondary regulations on competition?	0.1000	0	6	6		
					yes		no		
1/10		1/2	When developing **new primary laws** are regulators required to include the assessment of the impact of the new primary laws on the ability of businesses to innovate?	0.0500	0		6		
		1/2	When developing **new secondary regulations** are regulators required to include the assessment of the impact of the new secondary regulations on the ability of businesses to innovate?	0.0500	0		6		
					yes	no	no / not applicable (impact on ability of businesses to innovate not required)		
1/10			Is written guidance publicly available on how to assess the impact of **new primary laws** and/or **secondary regulations** on the ability of businesses to innovate?	0.1000	0	6	6		
			Competition advocacy						
1/10			Is there an independent body in your jurisdiction that can advocate competition at central and local government level?	0.1000	yes		no		
					0		6		
1/10			Can market/sectoral studies be performed in your jurisdiction?	0.1000	yes (by an independent public body)		yes (by ministries)		no
			If yes, when a market/sectoral study identifies an one or more obstacles or a restriction to competition caused by an existing laws or regulations and proposes recommendations to address them, is the government required to publicly respond to these recommendations?		yes	no	yes	no	no/ not applicable
					0	2	3	4	6

41. The first three columns, collectively titled *Weight Decomposition*, show more in detail how the answers are weighted. Each topic is given an equal weight – this is shown in the *Topic wight* column –, but when there are sub-questions, the averaging happens in steps. In these cases, the weights shown in the column *Intermediate Topic* and *Individual Data Point* are used first. Only some questions have two or three sets of weights, hence some of the columns under 'Weight decomposition' may be empty.

42. The column marked *Final weight*, which is the product of the topic, intermediate topic and data point weights provides the final weights attributed to each data point.

43. The central column shows the questions.

44. The last columns show all the possible answer options with the relevant score in red listed under each one.

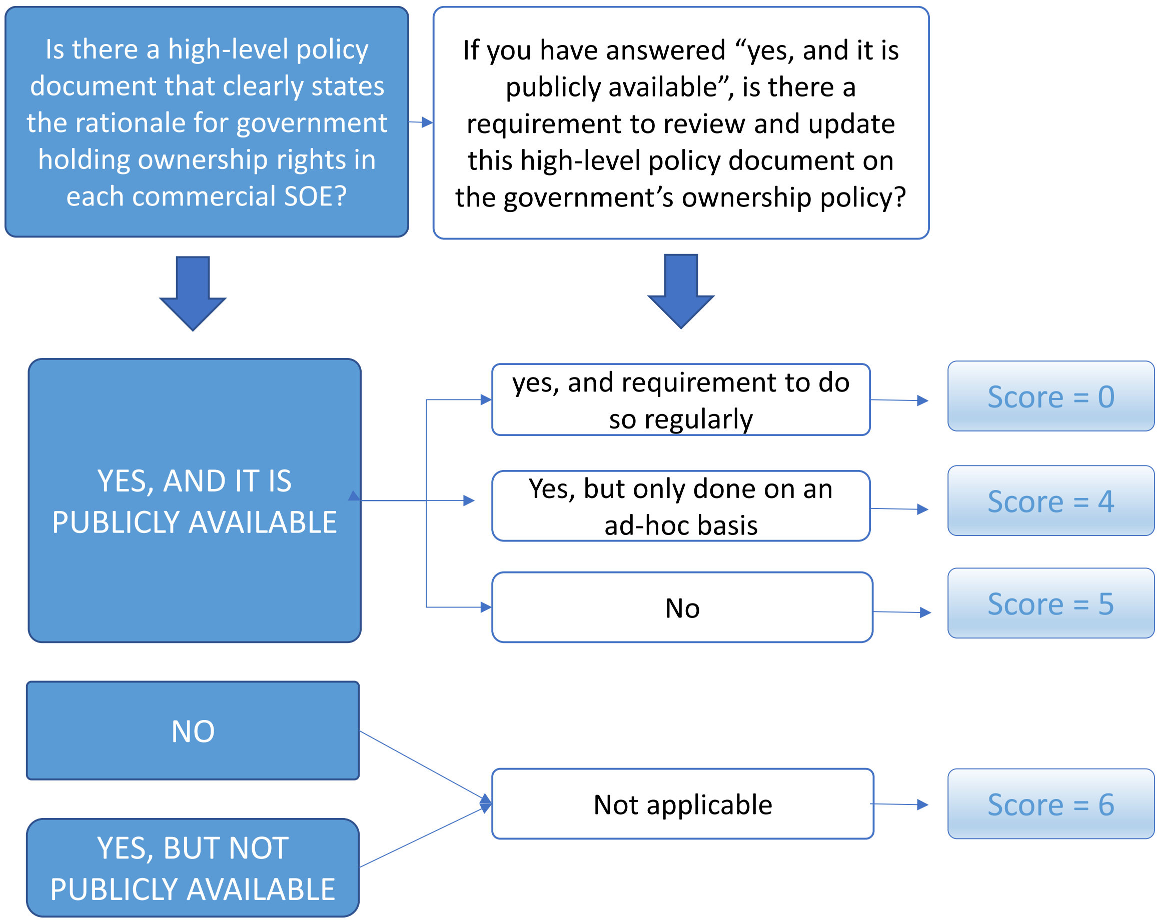
45. If more than one answer option has the same score, the two options are listed together. For example, in Figure 10 on Governance of Commercial SOEs, the two answer options ‘a coordinating agency/department’ and ‘Twin track model’ (circled in yellow) both lead to a score of 2, hence they are presented in the same column.

Figure 10. Example from the Schemata table for Governance of Commercial SOEs

	Final weight w_i	Coding of answers			
Which ownership model best characterises the ownership arrangements for commercial SOEs in your country?	0.053	centralised model	a coordinating agency/department/ Twin track model	dual ownership	dispersed ownership
		0	2	4	6
May the public body that exercises ownership rights over commercial SOEs also set policy priorities and /or exercise regulatory powers, concerning areas that affect the operation of these SOEs?	0.053	yes (in all or most sectors)		yes (in some sectors)	no
		6		3	0

46. Sometimes the answers to two questions can be scored jointly. An example can be seen in Figure 11 below that relates to the two questions: “*Is there a high-level policy document that clearly states the rationale for government holding ownership rights in each commercial SOE?*”, and “*If you have answered “yes, and it is publicly available” to the question above, is there a requirement to review and update this high-level policy document on the government’s ownership policy?*”. In this case, the scores are attributed to a combination of the answers to the two questions.

Figure 11. Example of a score attributed to a combination of the answers



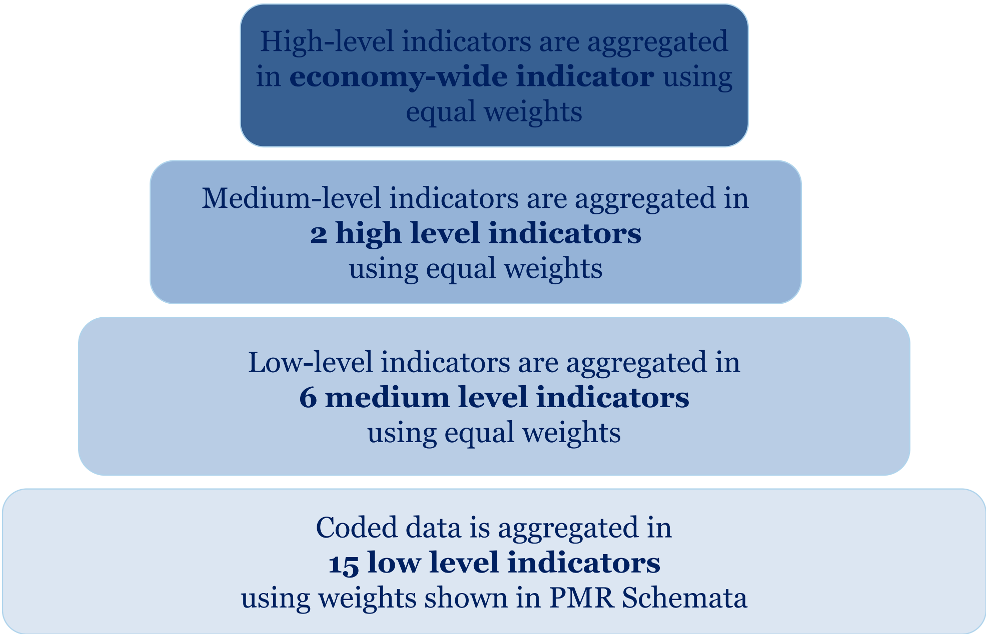
How the scores are aggregated

47. The scores of the questions are aggregated into the 15 low-level indicators (those shown in Figure 1) using the weights that are provided in the relevant tables of the economy-wide PMR Schemata (Figure 10).

48. The only exception is the *Quality and Scope of Public Ownership* low-level indicator, which is generated by interacting the *Scope of Direct and Indirect Control of firms by the State* and *Governance of SOEs* low-level indicators based on the following formula *Scope of Direct and Indirect Control of firms by the State*(Governance of SOEs/6)* (see under paragraph 14).

49. The low-level indicators are then aggregated into six medium-level indicators, which are in turn aggregated into two high-level indicators. The overall economy-wide indicator is the average of these two high-level indicators. At each step of aggregation, the composite indicators are calculated as a simple average of their components (Figure 12).

Figure 12. Aggregation process for the PMR economy-wide indicator



50. A similar approach is used for the sector indicators, though the aggregation involves fewer steps.

51. It should be stressed that the weights shown in the Schemata are the ones that are used when all data points for a low-level indicator are available. However, there can be cases when one or more data points are missing, because the answer was not provided or because the question does not apply to that country[4]. In those cases, the final weights applied to these data points are set at zero and the final weights attributed to the other data points contained in the same low-level indicator/sector indicator are rebalanced.

52. For instance, the low-level indicator Assessment of Impact on Competition is composed of ten data points, each with a final weight of 1/10 (Figure 9). In case the answer to one of the questions contributing to the low-level indicator is missing, the data points would become nine and the final weight for each would become 1/9. The rebalancing is not always as easy as in the example just given, since there could be more than one set of weights, whose product gives the final weight. The rebalancing of the weights is done using the statistical program Stata.

[4] For example in Iceland there is no natural gas sector, hence the questions on this sector are not taken into account for this country.

Annex A. Other data sources

53. The following sections will explain more in detail the additional sources of information used to compile the PMR database.

Main source: the PMR questionnaires

54. The PMR database is mostly based on the answers to the PMR questionnaire provided by the relevant authorities of the countries surveyed. However, in order to limit the burden imposed on these authorities, where possible the PMR database directly draws on other OECD indicators and databases. The OECD also relies on one external dataset, the UNCTAD Trade Analysis Information System database, for data on trade barriers.

Services Trade Restrictiveness Index (STRI)

55. A few answers related to some professional services are taken from the database underlying the OECD Services Trade Restrictiveness Index (STRI)[5], developed by the OECD Trade and Agricultural Directorate (See Box A.1 for more details). The STRI measures to what extent national regulations create obstacles to international trade in 22 service sectors, such as e-communication, transport, and professional services.

56. The STRI database covers all the OECD countries and a few other important world economies. When the STRI database does not include a country, the national authorities are asked to answer the relevant questions.

[5] https://www.oecd.org/trade/topics/services-trade/

Box A.1. Information that come from the STRI database

The answers to the following questions, which are related to barriers to foreign entry, are taken from the STRI database:

Professions:

- Q8a.4.1/Q8c.4.1/Q8d.4.1/Q8e.4.1: Is nationality or citizenship required for a lawyer/accountant/architect/civil engineer to practice in your country?
- Q8a.4.2/Q8c.4.2/Q8d.4.2/Q8e.4.2: Do laws or regulations establish a clear and transparent process for recognizing education titles that have been earned abroad in the case of lawyers/accountants/architects/civil engineers?
- Q8a.4.3/Q8c.4.3/Q8d.4.3/, Q8e.4.3: Are lawyers/accountants/architects/civil engineers that have acquired their qualifications in a foreign country required to take a local examination in order to practice?

Indicators of Regulatory Policy and Governance (iREG)

57. The Regulatory Policy and Governance (iREG)[6] indicators have been developed by the OECD Public Governance Directorate to measure regulatory performance in three regulatory areas – stakeholder engagement, regulatory impact analysis (RIA), and ex-post evaluation – advocated in the 2012 Recommendation of the Council on Regulatory Policy and Governance[7]. The iREG indicators provide a baseline measurement to track countries' progress over time. Indicator values are available for the years 2014, 2017, and 2021.

58. For the countries for which the iREG database is available, the information therein contained is used to provide the answers to some of the questions that are included in three low-level components of the PMR economy-wide indicator: Assessment of Impact on Competition, Interaction with Stakeholders, and Communication and Simplification of Administrative and Regulatory Burden (See Box A.2 for more details).

59. At present, the iREG database includes information on OECD member countries, and the 5 EU member states that are not part of the OECD. When the iREG database does not include a country, the national authorities are asked to answer the relevant questions.

[6] https://www.oecd.org/gov/regulatory-policy/indicators-regulatory-policy-and-governance.htm

[7] https://www.oecd.org/gov/regulatory-policy/2012-recommendation.htm

Box A.2. Information that come from the iREG database

The answers to the following questions are taken from the iREG database:

Communication and Simplification of Administrative and Regulatory Burden:

- Q4.1.1 Is a complete online database of all primary laws currently in force freely available to the public in a searchable format?
- Q4.1.1b If yes, is it up-to-date?
- Q4.1.2 Is a complete online database of all subordinate regulations currently in force freely available to the public in a searchable format?
- Q4.1.2b If yes, is it up-to-date?
- Q4.1.5 Does the government publish online a list of primary laws to be prepared, modified, reformed or repealed in the next six months or more?
- Q4.1.6 Does the government publish online a list of subordinate regulations to be prepared, modified, reformed or repealed in the next six months or more?
- Q4.1.7 Is there an explicit, published regulatory policy program promoting government-wide regulatory reform or regulatory quality improvement?
- Q4.1.8 Is there a dedicated body (or bodies) responsible for promoting this regulatory policy, as well as for monitoring and reporting on regulatory reform and regulatory quality in the national administration from a whole-of-government perspective?
- Q4.1.9 Are there ongoing mechanisms by which the public can make recommendations to modify, provide feedback or dispute specific existing laws and regulations?

Assessment of Impact on Competition:

- Q4.3.1 When developing primary laws, are regulators required to identify and assess the impacts of the following: The preferred regulatory option/ The baseline or ‘do nothing’ option/ Alternative regulatory options/ Alternative non-regulatory options
- Q4.3.2 When developing subordinate regulations, are regulators required to identify and assess the impacts of the following: The preferred regulatory option/ The baseline or ‘do nothing’ option/ Alternative regulatory options/ Alternative non-regulatory options
- Q4.3.4 Is there a requirement to conduct a Regulatory Impact Assessment to inform the development of new primary laws?
- Q4.3.5 Is there a requirement to conduct a Regulatory Impact Assessment to inform the development of new subordinate regulations?
- Q4.3.7 Is a government body - outside the ministry sponsoring the regulation - responsible for reviewing the quality of the Regulatory Impact Assessment?
- Q4.3.8 When developing new primary laws are regulators required to assess the impact of these primary laws on competition?
- Q4.3.9 When developing new subordinate regulations are regulators required to assess the impact of the new subordinate regulations on competition?
- Q4.3.11 When developing new primary laws are regulators required to include the assessment of the impact (i.e. costs and benefits) of the new primary laws on the ability of businesses to innovate?
- Q4.3.12 When developing new secondary regulations are regulators required to include the assessment of the impact (i.e. costs and benefits) of the new secondary regulations on the ability of businesses to innovate?

Interaction with Stakeholders:

- Q4.4.1 Is there a requirement to conduct stakeholder engagement to inform the development of primary laws?
- Q4.4.2 Are guidelines available on how to conduct stakeholder engagement on primary laws?
- Q4.4.3 Are regulators required to consider all comments received from the stakeholders during the consultation process before finalising any primary laws?
- Q4.4.5 Is there a requirement to conduct stakeholder engagement to inform the development of subordinate regulations?
- Q4.4.6 Are guidelines available on how to conduct stakeholder engagement on subordinate regulations?
- Q4.4.7. Are regulators required to consider all comments received from the stakeholders during the consultation process before finalising any subordinate regulations?

Regulatory Restrictiveness Index (FDI index)

60. The Regulatory Restrictiveness (FDI)[8] Index, developed by the Directorate for Financial Affairs, measures statutory restrictions on foreign direct investment across 22 economic sectors.

61. It assesses four main types of restrictions on FDI: 1) foreign equity limitations; 2) discriminatory screening or approval mechanisms; 3) restrictions on the employment of foreigners as key personnel and 4) other operational restrictions, e.g. restrictions on land ownership by foreign-owned enterprises, restrictions on corporate branch establishment, restrictions on access to local finance. Restrictions are evaluated on a 0 to 1 scale, from more to less open. The overall restrictiveness index is the average of 22 sectoral scores.

62. The FDI Index is used to calculate the low-level indicator of the economy-wide PMR Barriers to FDI. In 2022, a new methodology was introduced to calculate the FDI Index. The FDI values presented in the latest PMR indicators are based on this new methodology. The value of this low-level indicator is set equal to the value of the FDI index, adjusted to 0 to 6 scale. (as explained in Box A.3).

Box A.3. Adjusting the value of FDI Index

The FDI index is between 0 and 1, where 0 designates a situation in which there are no restrictions to FDI, and 1 designates a situation in which restrictions are very high. In order to adjust the FDI index to the 0 to 6 scale used in the PMR indicators, the following formula is used:

Barriers to FDI = FDI index * 6

63. The FDI index is calculated for all OECD countries and an increasing number of other countries. However, if the FDI index is not available for a country that is included in the PMR database, the following approach is used:

- If the country is a European Union member, the average of the FDI indexes for all the EU member states for which such an index is available is used as a proxy
- If the country is neither a member of the OECD nor of the EU, the average of the FDI index for all the non-OECD countries for which such an index is available is used as a proxy.

[8] https://www.oecd.org/investment/fdiindex.htm

Trade Facilitation Indicators (TFIs)

64. The TFIs, developed by the OECD Trade and Agricultural Directorate, are 11 indicators that measure trade border procedures[9]. Each of the eleven TFIs is composed of several specific and fact-based variables assessing existing trade-related policies and regulations and their implementation. They are updated every two years.

65. The low-level indicator of the economy-wide PMR Barriers to Trade Facilitation is calculated as the simple average of the eleven TFI indicators, adjusted to reflect the PMR scale (as explained in Box A.4).

Box A.4. Adjusting the value of the TFIs

The TFIs range from 0 to 2, where 2 designates the best performance that can be achieved. Hence, not only is the scale different, but also the highest and the lowest value have the opposite interpretation for the PMR indicators. Thus, in order to adapt the TFIs to the PMR, the following formula has been used:

$$\boldsymbol{Barriers\ to\ Trade\ Facilitations} = \left(\mathbf{1} - \frac{\boldsymbol{TFI}}{\mathbf{2}}\right) * \mathbf{6}$$

66. The TFIs are calculated for more than 160 countries. In those rare cases in which the TFIs are not available for a country that is included in the PMR database, the following approach is used:

- If the country is an OECD member, the average of the TFIs for all the OECD member states for which such indexes are available is used as a proxy
- If the country is not an OECD member, the average of the TFIs for all the non-OECD countries for which such indexes are available is used as a proxy.

UNCTAD Trade Analysis Information System database

67. The UNCTAD Trade Analysis Information System (TRAINS)[10] is a computerised database that contains information on tariffs and non-tariff measures. It includes data on more than 160 countries.

68. The OECD takes from this database the average value of the tariff rates effectively applied in a country for all trade. This average value is broken down into classes to which the 0 to 6 PMR scale is applied. This value feeds into the Tariff Barriers low-level indicator in the PMR economy-wide indicator.

69. For EU countries the overall EU average of the tariff measure for all the EU member states explained in the previous paragraph is used as a proxy.

[9] https://www.oecd.org/trade/topics/trade-facilitation/

[10] https://wits.worldbank.org/about_wits.html