



SUPREME DECREE 004-2022 THE TECHNICAL REGULATION ON MILK AND DAIRY PRODUCTS OF PERU

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Executive Summary

Decree No. 004-2022-MIDAGRI ("Decree"), partially amends the Regulation on Milk and Milk Products ("Regulation"¹) and impacts the dairy production sector. The amendment applies a U.S.-based standard, which only allows using fresh milk to produce evaporated milk. As a result, U.S. dairy producers effectively lose their market for importing milk powder into Peru, since the primary use for milk powder in the Peruvian market had been for the production of evaporated milk.

Measure at Issue

Regulation of Milk and Milk Products, Article 2.1 replacing CODEX STAN 281-1971 with FDA (21 CFR 131.130) Requirements for standardized milk and creams, Article 2.2 "Definitions - Evaporated milk" and Article 14 "Technical specifications of evaporated milk," amended by the Supreme Decree No. 004-2022-MIDAGRI of Peru.

Summary of the Arguments under the Covered Agreement

The primary issue for consideration is whether the technical specification(s) for milk and milk products, as provided in the Regulation, falls within the ambit of the Agreement on Technical Barriers to Trade ("TBT Agreement"). We found the measure constitutes a technical regulation.

Since the TBT Agreement applies, the secondary issue is whether the amendment may violate any substantive obligations of Peru under the Agreement. The single measure generates two levels of impact on the Peruvian market. On the production level, the measure prohibits evaporated milk producers from adding milk powder and only allows fresh milk to be used, affecting the raw material market. On the distribution level, the measure prohibits evaporated milk made of milk powder from being labelled as "evaporated milk," affecting the final product market.

The two levels of impact may potentially incur three violations under the TBT Agreement, *i.e.*, Articles 2.1, 2.2 and 2.4., Article 2.1, and Article 2.2 of the TBT Agreement are relevant for the analysis under the production level, since the measure likely discriminates between imported milk powder and domestic fresh milk as well as raises unnecessary barriers to trade, where the affected imported good is milk powder. Article 2.4 is relevant for the analysis under the distribution level, since the measure may not be based on the relevant international standard concerning the denomination and labelling of evaporated milk.

The measure amounts to a technical regulation

For a measure to be regulated by the TBT Agreement, it has to fall within its scope of application. The amendment introducing new technical specifications for milk powder amounts to a "technical regulation" under Annex 1. This specification applies to an identifiable product, defines the product characteristics, and mandates compliance, distinguishing itself from voluntary standards or conformity assessment procedures. Essentially, these mandatory technical specifications apply to "evaporated milk."

The measure may violate Article 2.1 of the TBT Agreement

Article 2.1 of the TBT Agreement provides for the non-discriminatory obligation, including the national treatment obligation, which requires that domestic and foreign like products

¹ When referred to in this Memorandum, "Regulation" is used in the meaning that it is the 2022 amended version.

should not be treated differently to the detriment of the imported product.² The issue here is whether the imported milk powder and domestic fresh milk are 'like products' and whether the amendment 'accords less favorable treatment' to the latter. Since the measure allows fresh milk to be used by manufacturers but restricts milk powder from being used, there could be a violation of the national treatment obligation.

The measure may violate Article 2.2 of the TBT Agreement

Article 2.2 of the TBT Agreement requires that measures amounting to technical regulations should not create unnecessary obstacles to trade. In this instance, Peru's technical specifications exclude milk powder from the definition of "evaporated milk." Most of the milk powder in the Peruvian market is manufactured in the U.S. and imported into Peru for the purposes of producing evaporated milk. Peru's main objective may be protection of human health and safety, or increasing modernization in the milk production process. However, the measure is likely disguised protectionism.

On the face of it, the measure appears to be trade-restrictive in nature, because it has the effect of preventing the use of powdered milk for its main purpose, *i.e.*, the production of evaporated milk. It is likely more trade-restrictive than necessary because there appears to be no direct genuine link between the limitation of imports of milk powder from the U.S. to Peru and the achievement of the two objectives. Lastly, there exist other less trade-restrictive, equally effective and reasonably available alternatives that Peru could pursue.

The measure may violate Article 2.4 of the TBT Agreement

Article 2.4 of the TBT Agreement requires that technical regulations be based on relevant existing international standards. Peru's measure appears inconsistent with this provision because it does not base its technical regulation on the relevant international standard, *i.e.*, CODEX STAN 281-1971. Rather, it replaces it with a more stringent foreign standard, namely, FDA (21 CFR 131.130). As long as the relevant international standard is effective and appropriate, relying on a more stringent standard constitutes a violation. This obligation ensures that Members are bound by the relevant international standard, which prevents them from picking and choosing standards, as well as raising barriers to international trade.

The international standard is effective because it can achieve Peru's objectives. At the same time, it is more appropriate not only because it is in line with worldwide common practice, but also because it imposes a lesser burden on international trade, a key requirement of Article 2.4. It is likely that Peru selected this stricter standard in order to revive its dairy industry, by discouraging imported milk powder and supporting domestic fresh milk. Therefore, a violation of Article 2.4 seems apparent.

² Agreement on Technical Barriers to Trade, Article 2.1.

1. Introduction

1.1 Production of evaporated milk

Peru's Regulation amends the denomination and composition of evaporated milk, prohibiting the use of milk powder in raw materials. Therefore, the products at issue are evaporated milk and its raw materials. In Peru, these raw materials mainly consist of fresh milk, milk powder (whole and skim), and anhydrous milk fat. However, Peru does not have the capacity to produce enough fresh milk to satisfy domestic demand for milk products, and it is estimated that 30% of its supply should be imported to fill the gap.³ Essentially, all milk powder and anhydrous milk fat are imported.⁴ In 2021, milk powder imports reached US\$189.65 million, which accounted for 59.48% of the volume of imports, to meet the demand for raw materials in the domestic dairy market.⁵ Peru mainly imports milk powder from the U.S. and Argentina.⁶ At the same time, Peru is one of the major producers of evaporated milk in the Latin America region.⁷

Though milk powder is relied on by producers of evaporated milk, the Peruvian government has adopted a trade-restrictive policy towards it. From 1991 to 2008, producers of liquid milk, cheese, butter, and similar products were prevented from using imported milk powder to manufacture those products.⁸ Moreover, a 9% tariff on milk powder was not eliminated until 2011.⁹

Until 2007, the use of domestic fresh milk in evaporated milk production remained at 88.4%, subject to the restriction on imported milk powder since 1991. In 2007, industrial milk producers were allowed to recombine milk powder when manufacturing evaporated milk. This had a positive impact on the Peruvian evaporated milk market, since after 2008, the use of fresh milk sharply dropped while the use of milk powder (whole and skim) rose. In 2020, the use of milk powder (whole and skim) reached 30.6%, though the use of fresh milk fell to 62.9%.¹⁰

This inclination is largely attributed to the structure of Peru dairy processing industry, which is highly concentrated. Three large companies Gloria (70%), Nestlé and Laive (15%) account for 85% of total industrialized milk production, while the remaining 15% of the market share is made up of 160 small processors throughout the country.¹¹ The large companies prefer imported milk powder, likely because of its cheaper price,¹² convenience for transportation, as well as stability of its supply. Alternatively, 77% of fresh milk in Peru is produced by small and medium producers mainly in mountainous areas,¹³ and they are of high atomization and

³ Gaspar Nolte, 'Dairy Update' (United States Department of Agriculture Foreign Agricultural Service, December 22, 2021)

<https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Dairy%20 Update_Lima_Peru_12-03-2021.pdf> accessed September 25, 2022

⁴ Explanatory Memorandum, p.11.

⁵ Explanatory Memorandum, p. 12.

⁶ Explanatory Memorandum, p.12.

⁷ Explanatory Memorandum, p.13.

⁸ Explanatory Memorandum, p 17.

⁹ Explanatory Memorandum, p.18.

¹⁰ Explanatory Memorandum, pp.18-19.

¹¹ Gaspar Nolte, 'Dairy Update' (United States Department of Agriculture Foreign Agricultural Service, December 22, 2021)

<https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Dairy%20 Update_Lima_Peru_12-03-2021.pdf> accessed September 25, 2022

¹² Evaporated milk could only be made with fresh milk and no longer powdered' La República (Lima, March 15, 2022) <https://larepublica.pe/economia/2022/03/15/leche-evaporada-solo-podria-elaborarse-con-leche-fresca-y-ya-no-en-polvo/> accessed September 25, 2022

¹³ INEI, 'IV National Agricultural Census 2012' (*National Institute of Statistics and Informatics*, March 6, 2012) accessed">https://www.fao.org/food-agriculture-statistics/resources/resources-detail/fr/c/1373860/>accessed September 25, 2022.

informality.¹⁴ Their supply is especially volatile as a result of COVID-19 and its relevant restriction measures.¹⁵

1.2 Consumption of evaporated milk

According to the information provided by the Ministry for Agriculture and Irrigation ("MIDAGRI"), evaporated milk is largely purchased for culinary use in the global market, but a large market share is for direct human consumption in Peru. Historically, evaporated milk was sometimes the only milk product in the Peruvian market.¹⁶ Thus, it is a socially and economically important product in Peru.

Due to the direct human consumption of evaporated milk, Peru has stated concerns about its protein/milkfat ratio. It alleges that this ratio affects its nutrition level. According to Peru, the ideal ratio should be as close to 1 as possible.¹⁷ Peru attributed its current nutrition deficit (in protein/milkfat ratio) to the reliance on the international standard, CODEX STAN 281-1971, according to which the ratio could be as low as 0.79.¹⁸ It also allows the addition of milk powder in evaporated milk. Based on this, Peru amended its Regulation to prohibit the use of milk powder in the production of evaporated milk.

1.3 Dairy industry crisis and national strike

The stated nutritional objective may not show the full picture, because there is also a political motivation. The Peruvian dairy industry is in a tough period. On one hand, there are increasing high prices of imported feed and freight costs. Its currency, Peruvian Sol, devalued 14% against the dollar in 2021 because of political tension.¹⁹ On the other hand, the milk prices paid to producers remained as low as S/1.06 per liter, causing many of them to be forced out of business.²⁰ The low collection price of fresh milk is due to the high concentration of the dairy processing industry. Since the ranchers' bargaining power is small, they seldom have a choice but to sell fresh milk to those major companies at the price they offer.²¹ Furthermore, the president of Association of Dairy Farmers of Peru (AGALEP) alleges that the reliance on CODEX STAN 281-1971 creates unfair competition for local production, because when major companies prefer the imported milk powder for its cheaper price, they stop buying from local farmers.²²

On March 15, 2022, AGALEP called for a national strike to express their dissatisfaction regarding the low prices paid for fresh milk and asked the executive branch to adopt the FDA standard, prohibiting the use of milk powder in evaporated milk. The ranchers believed in this way the major companies would purchase more domestic fresh milk.²³

¹⁴ Explanatory Memorandum, p.9.

¹⁵ Explanatory Memorandum, p.7, p.10.

¹⁶ Explanatory Memorandum, pp.13-14.

¹⁷ Explanatory Memorandum, p.21.

¹⁸ Explanatory Memorandum, p.22.

¹⁹ Gaspar Nolte, 'Dairy Update' (United States Department of Agriculture Foreign Agricultural Service, December 22, 2021)

<https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Dairy%20 Update_Lima_Peru_12-03-2021.pdf> accessed September 25, 2022.

²⁰ MIDAGRI presents decree to make changes to the milk regulation' La República (Lima, March 14, 2022) https://larepublica.pe/economia/2022/03/14/midagri-presenta-decreto-para-hacer-cambios-al-

reglamento-de-la-leche/> accessed September 25, 2022.

²¹ 'Collection of fresh milk by the dairy industry fell 14% between January and February' La República (Lima, April 28, 2022) https://larepublica.pe/economia/2022/04/28/acopio-de-leche-fresca-por-parte-de-la-industria-lactea-cayo-14-entre-enero-y-febrero/ accessed September 25, 2022.

²² 'Evaporated milk could only be made with fresh milk and no longer powdered' La República (Lima, March 15, 2022) https://larepublica.pe/economia/2022/03/15/leche-evaporada-solo-podria-elaborarse-con-leche-fresca-y-ya-no-en-polvo/ accessed September 25, 2022.

²³ 'Today Begins National Strike of Dairy Farmers' 247 News Agency (Lima, March 15, 2022) < https://247newsagency.com/economy/87166.html> accessed September 25, 2022.

1.4 Amendment of regulation on evaporated milk

Following the domestic strike, on April 7th, 2022, the amended Regulation on Milk and Milk Products finally came out. It was targeted at strengthening small family dairy farming, as well as guaranteeing the sanitary quality of those products. More specifically, it amended Articles 2, 14, 31, 32, 38 and 59. For present purposes, we will focus on Article 2 and Article 14 of the Regulation, which modify the definition and composition of evaporated milk.

The new definition prevents products made of milk powder from being labelled as "evaporated milk." This seriously impacts the U.S. dairy producers, since the main exportation of milk products from the U.S. to Peru is milk powder. \$84 million or 28,000 metric tons of milk powder were exported from the U.S. to Peru in 2021.²⁴

The amendment on the classification of evaporated milk is based on the United States Code of Federal Regulations, FDA (21 CFR 131.130), titled "Requirements for standardized milk and creams." This standard has been in effect in the U.S. since 1978. While the international standard established by Codex Alimentarius allows evaporated milk to be made of milk powder, Peru has narrowed down this criterion to limit the exportation of U.S. milk powder, in the name of protecting human health and strengthening the production chain of dairy products. To facilitate its objective, Peru believes the protein/milkfat ratio in evaporated milk should become closer to 1 by only using fresh milk as raw material.

2. The Measure may violate Articles 2.1, 2.2 and 2.4 of the TBT Agreement

The amendment to the Regulation likely violates these TBT provisions on account of (i) the modification of competitive conditions for imported milk powder in a manner which accords 'less favorable treatment' within the meaning of Article 2.1, (ii) the 'trade-restrictiveness' it causes U.S. imports into Peru, within the context of Article 2.2, and (ii) its non-application of an existing relevant international standard, within the meaning of Article 2.4. Before expounding on these points, the measure shall be categorized as a technical regulation for the TBT Agreement to apply.

2.1 The Measure is a technical regulation

Annex 1 of the TBT Agreement limits its scope of application to either a technical regulation, a standard, or conformity assessment procedure. The present qualifies as a technical regulation because it is related to the production method.

Firstly, Article 2.1 of the amended Regulation replaces CODEX STAN 281-1971 with FDA (21 CFR 131.130). Secondly, Article 2.2 of the Regulation establishes the definition of evaporated milk, precluding the use of milk powder when producing evaporated milk. Additionally, Article 14 of the Regulation modifies the technical specifications of evaporated milk, increasing the protein/milkfat ratio. Title III of the Regulation provides packaging and labelling requirements for milk and milk products, including evaporated milk. These three articles and the corresponding labelling requirements, as a whole, constitute a measure regulating evaporated milk production and distribution.

According to Annex 1.1 and 1.2 of the TBT Agreement, the major difference between a technical regulation and a standard is whether compliance is mandatory.²⁵ While they both (to use the language of the Agreement) "include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product and process or

²⁴ Information provided by the Beneficiary.

²⁵ Panel Report, *EC – Sardines*, paras. 7.64-7.65.

production method,"²⁶ conformity assessment procedures refer to "any procedure used, directly or indirectly, to determine that relevant requirements in technical regulations or standards are fulfilled."27

A three-tier test is followed to determine whether a measure constitutes a "technical regulation": (i) the document applies to an "identifiable" product or group of products; (ii) the document must lay down one or more characteristics of the product, which are either intrinsic or related to the product; and (iii) compliance with those product characteristics must be mandatory.²⁸ Peru's measure fulfills this three-tier test because it applies to identifiable products, it defines the product characteristics, and compliance is mandatory.

On the first test, the amended Regulation applies to three identifiable products, *i.e.*, evaporated milk, fresh milk and milk powder. Evaporated milk and fresh milk are identified under Article 2.2 of the Regulation, which gives a direct definition.²⁹ Furthermore, the chapeau of this Article 2.2 is worded, "specifically for the purposes of this Regulation, the following definitions will apply," meaning that evaporated milk and fresh milk belong to the products being regulated. In addition to these two, milk powder is also identifiable.

Peru may argue that only evaporated milk and fresh milk are identifiable products while milk powder is not, but this line of argument was invalidated in EC - Sardines. In that case, the European Communities' ("EC") Regulation provided that only products made from Sardina pilchardus (sardines mainly from EC) can be marketed as "preserved sardines" and under the relevant trade description.³⁰ The Appellate Body (AB) rejected the EC's claim that the product coverage of the EC Regulation is limited to preserved Sardina pilchardus, and that Sardinops sagax (sardines mainly from Peru) was not an identifiable product under the EC Regulation.³¹The term "identifiable" does not only mean expressly identified.³² In that case, the preserved products made of Sardinops sagax were still covered, in the sense that they had been prohibited from being identified and marketed under the term "sardines."33

This rationale applies squarely to the Peruvian Regulation. Though the term "milk powder" is not explicitly mentioned in the Regulation, it is not excluded from the regulatory scope. By allowing evaporated milk to be made of only fresh milk, the liquid product containing milk powder is, by definition, prohibited from being classified as "evaporated milk." Therefore, both the evaporated milk, as the end product, and milk powder are identified by the Regulation.

On the second test, both Articles 2.2 and 14 of the Regulation provide for the characteristics of evaporated milk. In EC - Sardines, the AB recalled that the word "characteristics" refers to "any objectively definable features, qualities, attributes, or other distinguishing marks of a product, which may relate to its composition."³⁴ In addition to these intrinsic features, "means of identification" could also constitute product characteristics. 35 In this regard, the Regulation's Article 2.2 provides the denomination criteria from the perspective of processing raw materials as; "evaporated milk is the liquid food obtained by the partial removal of water only from milk." This constitutes a "means of identification." Article 14 provides the technical

²⁶ See Annex 1.1, 1.2 of the TBT Agreement.

²⁷ See Annex 1.3 of the TBT Agreement.

²⁸ Appellate Body Report, EC - Sardines, para. 176 (referring to Appellate Body Report, EC - Asbestos, paras. 66-70).

⁹ To be clear, this memorandum uses the term "fresh milk" to refer to the term "milk" in the Regulation. ³⁰ Panel Report, *EC – Sardines*, para. 2.6.

³¹ Appellate Body Report, EC – Sardines, para. 177.

³² Appellate Body Report, EC – Sardines, para. 184.

 ³³ Appellate Body Report, *EC – Sardines*, paras. 182-184.
 ³⁴ Appellate Body Report, *EC – Sardines*, para. 189 (quoting Appellate Body Report, *EC – Asbestos*, para. 67).

³⁵ *Ibid*.

specifications of three types of evaporated milk, (Evaporated Whole Milk, Evaporated Partially Skimmed Milk, and Evaporated Skimmed Milk) from the perspective of their physicochemical composition. Therefore, the Regulation indeed provides the product characteristics.

Thirdly, compliance with this Regulation is mandatory. In *EC – Trademarks and Geographical Indications (Australia)*, the Panel noted that the word "mandatory" means "obligatory in consequence of a command, compulsory."³⁶ The Explanatory Memorandum annexed to the Regulation clarifies that if the industry decides to continue using imported milk powder in its production, it cannot be labelled as "evaporated milk."³⁷ In this instance, any Peruvian producers of evaporated milk shall package, label, and advertise their products with the correct denomination and composition.

In *Australia – Tobacco Plain Packaging*, the Panel noted that the legal enforceability and binding character under a Member's law is an important component of the 'mandatory' nature.³⁸ For Peru's Regulation, Title III gives the packaging and labelling requirements for milk and milk products, which are subject to penalties in case of infringements. It is provided under Article 62.1 of the Regulation that "[a]ny conduct that by action or omission implies total or partial non-compliance with the provisions of these Regulations shall be considered a violation." Further, Article 65 provides that "[v]iolations and penalties applicable to labelling and consumer information shall be subject to the provisions of Law No. 29571, Code of Consumer Protection and Defense." Therefore, in addition to the inability to use the label of "evaporated milk," producers may even be subject to relevant penalties if they misuse the label.

In conclusion, compliance with the denomination and composition rules is mandatory for evaporated milk producers. For these reasons, Peru's Regulation is a "technical regulation" within the meaning of Annex 1.1 of the TBT Agreement.

2.2 The Measure may be in violation of Article 2.1 of the TBT Agreement

Peru's measure, which constitutes a technical regulation, needs to go through a two-pronged test which was established by the Appellate Body in *US-Tuna II (Mexico)*, in order to determine whether it is consistent with Article 2.1 of the TBT Agreement. The test is that (i) the imported products must be like the domestic products; and (ii) the treatment accorded to these imported products must be less favorable than that accorded to the like domestic products.³⁹

2.2.1 Imported milk powder and domestic fresh milk are like products

Milk powder and fresh milk are like products. This determination of likeness is based on the competitive relationship between the two products in the Peruvian market.⁴⁰ Context for interpretation of Article 2.1 of the TBT Agreement includes Article III of the GATT because it is directly referenced in the second recital of the TBT Agreement.⁴¹ Article III of the GATT prohibits both internal taxes and regulations which promote protectionist objectives of a state. Even though the GATT and the TBT Agreement are separate, the AB reasoned that the GATT gives some context because the TBT aims at furthering the GATT objectives.⁴²

³⁶ Panel Report, EC – Trademarks and Geographical Indications (Australia), para. 7.453.

³⁷ Explanatory Memorandum, p.33.

³⁸ Panel Reports, Australia – Tobacco Plain Packaging, para. 7.168.

³⁹ Appellate Body Report, US - Tuna II (Mexico), para. 202 (referring to Appellate Body Report, US -

Clove Cigarettes, para. 87). See also Appellate Body Reports, US - COOL, para. 267.

⁴⁰ Appellate Body Report, *US-Clove Cigarettes*, para. 111. See also para. 108: It is to be approached based on a competition-oriented approach.

⁴¹ *Ibid.* See also comment by Appellate Body that context is derived from the TBT Agreement as a whole. ⁴² Second Recital to the Preamble of the Agreement on Technical Barriers to Trade.

Therefore, examining the competitive relationship of both milk powder and fresh milk primarily entails establishing the 'nature' and 'extent' in which they compete in the market.⁴³

Incidentally, this same argument to determine likeness is applicable when examining consistency with Article III:4 of the GATT. This is owing to the reasoning of the AB in *US-Clove Cigarettes* which allows the national treatment under both Article 2.1 of the TBT Agreement and Article III:4 of the GATT to be interpreted identically.⁴⁴

As mentioned above, Peruvian producers of evaporated milk mainly rely on the domestic supply of fresh milk as well as imported supply of milk powder.⁴⁵ The amendment concerns two products (fresh milk and milk powder) which are affected at the first chain of production. They shall be the only products of comparison for this test. The evaporated milk production chain contains two links: one link involves the supply of raw materials to the manufacturers, while the other concerns the supply of the finished products to the final consumers.⁴⁶ To determine likeness, attention is given to the first link, where milk powder and fresh milk are supplied as raw materials for production of evaporated milk.

Milk powder and fresh milk are directly competitive and substitutable because they are both supplied to Peruvian dairy manufacturers for the production of evaporated milk. Determining the degree of the competitive relationship involves an examination of the 'extent of demand and supply substitutability'.⁴⁷ Prior to the amendment, both U.S. importers of milk powder and Peruvian suppliers of fresh milk competed to market their products to the Peruvian evaporated milk producers, for the purpose of producing evaporated milk. The producers of evaporated milk could either use fresh milk or milk powder, or, as established from the MIDAGRI data, both products.⁴⁸ Thus, both products have a degree of substitutability sufficiently strong to make it likely that differential treatment would have protective effects.⁴⁹

The Peruvian market heavily relies on the supply of milk powder, whose traditional use in this market is the production of evaporated milk.⁵⁰ On the other hand, it appears as though Peru intends to strengthen the production of fresh milk to increase its supply to these producers in the production of evaporated milk. If one product is available in excess, it may be substituted for the other one, because it is in large supply.⁵¹

Admittedly, the test of whether products are directly competitive and substitutable is not an easy one,⁵² but there is guidance, that it is determined based on the relevant marketplace, and the similarity in 'end use' as measured by 'elasticity of substitution across products.'⁵³ In this case, both milk powder and fresh milk have 'common end-uses' in the Peruvian market, which is the production of evaporated milk. This is a good indicator that they are directly competitive and substitutable.⁵⁴ It was noted by the Appellate Body in *Philippines-Distilled Spirits*, that the focus of this test should be narrowed down to the specific market and the specific use(s) of

⁴³ Appellate Body Report, *EC-Asbestos*, para. 99.

⁴⁴ Appellate Body Report, US-Clove Cigarettes, para. 111.

⁴⁵ Explanatory Memorandum, p. 11.

⁴⁶ Ibid.

⁴⁷ Ibid.

⁴⁸ Explanatory Memorandum, p. 18.

⁴⁹ T. Cottier, P. C. Mavroidis, 'Regulatory Barriers in the Principle of Non-Discrimination in WTO Trade Law: "Like Product": The Differences in Meaning in GATT Articles I & III'(2000) The World Trade Forum Vol. 2, p. 107.

⁵⁰ Explanatory Memorandum, p. 20.

⁵¹ M. Krajewski, 'Like Products' in International Trade Law-Towards a Consistent GATT/WTO Jurisprudence by Won-Mog Choi, King's Law Journal' (2004) p. 21-22.

⁵² D. J. Neven, 'How should "Protection" be evaluated in Art. III GATT Disputes?' University of Lausanne and CEPR (July 2000).

⁵³ Ibid. p. 9. See also Appellate Body Reports, Japan-Alcoholic Beverages II, p. 25.

⁵⁴ Appellate Body Reports, *Japan-Alcoholic Beverages II*, p. 25.

the two products, and not their general uses.⁵⁵ So, concern is not with the general end-uses of milk powder and fresh milk, but rather, the identified specific use of these products in the Peruvian market. This is the manufacture of evaporated milk. Both products may be substituted for each other, and they compete in the Peruvian market. For these reasons, milk powder and fresh milk are like products.

2.2.2 The Measure likely accords less favorable treatment to imported milk powder

On the face of it, Peru's regulation seems to treat imported milk powder 'less favorably' compared to domestic fresh milk. This position is based on the standard for establishing 'less favorable treatment', which has been expounded on many times to mean the *de jure* or *de facto* modification of the conditions of competition, thereby causing detrimental impact to imported products as compared to domestic products.⁵⁶ The Regulation does not constitute a *de jure* discrimination because the 'less favorable treatment' is not based on the origin of the product. However, it appears to generate a *de facto* detrimental impact on imported milk powder.

When examining whether the *de facto* detrimental impact exists, we need to consider "any implications for competitive conditions discernible from the design and structure of the measure itself, as well as all features of the particular market at issue that are relevant to the measure's operation within that market."⁵⁷

In this case, the *de facto* detrimental impact exists in the Peruvian market. As mentioned, the amendment removes milk powder as an ingredient to the supplier for production of evaporated milk. It only allows fresh milk that is sourced from the domestic market. To show the magnitude of the 'less favorable treatment', the U.S. is one of the major importers of milk powder to Peru.⁵⁸ The two major players in the Peruvian market are therefore U.S. suppliers of milk powder and Peruvian suppliers of fresh milk. The local producers of evaporated milk rely on supply from each of these players. However, the amendment effectively prevents the U.S. from importing milk powder to the evaporated milk producers. In this way, the measure seems to modify the conditions of competition to the detriment of imported milk powder.

Besides the establishment of detrimental impact, the test for 'less favorable treatment' entails assessing whether such detrimental impact "stems exclusively from a legitimate regulatory distinction."⁵⁹ This means that the measure unfairly discriminates against imports for no good reason and is to be determined by assessing whether the measure applied in an 'even-handed manner' (*i.e.*, is the measure calibrated to the specific risk which Peru intends to mitigate?)

On the face of it, Peru's measure does not seem to have been applied even-handedly because it is doubtful whether it is actually based on the objectives being pursued.⁶⁰ This is because for a measure to be applied in an even-handed manner, there should be a clear nexus between the regulatory distinction, which causes the detrimental impact, and the objective(s) being pursued.⁶¹ The measure's design and architecture should also be interrogated.⁶² As it stands, it is doubtful that Peru's measure passes this test.

⁵⁵ Appellate Body Reports, *Philippines-Distilled Spirits*, para. 220-221.

⁵⁶ Appellate Body Report, US-Clove Cigarettes, para. 175; Appellate Body Reports, EC-Asbestos, para. 100.

⁵⁷ Appellate Body Report, *US – COOL*, para. 286.

⁵⁸ Explanatory Memorandum, p.12.

⁵⁹ Appellate Body Reports, US – Tuna II (Mexico), para. 215; US – COOL, para. 271; and US – Tuna II (Mexico) (Article 21.5 – Mexico), para. 7.26. See also Panel Reports, US – Tuna II (Mexico) (Article 21.5 – Mexico), para. 7.73; and US – COOL (Article 21.5 – Canada and Mexico), paras. 7.60-7.62.

⁶⁰ Appellate Body Reports, US – Clove Cigarettes, para. 175.

⁶¹ G. Marin-Duran, 'Measures with multiple competing purposes after EC-Seal Products: Avoiding a conflict between GATT XX-Chapeau and Article 2.1 TBT Agreement' (2016) Journal of International Economic Law, Vol. 19, p. 18-19.

⁶² Ibid. p. 18.

To illustrate, it appears as though Peru's measure pursues two objectives: (i) protecting human health and (ii) modernization of the milk production industry. The legitimacy of these objectives are examined at a later stage of this memorandum. However, to make this point, it is crucial to mention that from a close evaluation of the manner in which Peru's measure is applied, it is not clear that any of these objectives informed the regulatory distinction reflecting in this measure.

It is evident that by changing the nutritional components of evaporated milk, Peru's measure has the effect of preventing the supply of milk powder to Peruvian producers. In this way, the measure conveniently blocks one category of suppliers (importers) from reaching Peruvian producers, while allowing the other category (domestic suppliers) to supply their products for production of evaporated milk. The problem with this is that from the information given by the Peruvian Government, there is little evidence to show that restricting imported milk powder would contribute either to the nutritional or to modernization objective(s).⁶³ What seems to come out clear though is that the measure could be said to arbitrarily discriminate between these two products. It could also, for these reasons, be concluded that the measure affords 'less favorable treatment' to imported milk powder compared to domestic fresh milk.

2.3 The Measure may violate Article 2.2 of the TBT Agreement

The Appellate Body in US-COOL (Article 21.5 Canada and Mexico) stated that in order for a measure to be permissible under Article 2.2 it must (i): have a legitimate objective; (ii) not be "more trade-restrictive than necessary" to fulfil the legitimate objective; and (iii) fulfil the legitimate objective taking account of the risks non-fulfilment would create, *i.e.*, the test of whether there was a contribution, and what would happen if the objective of the measure was not fulfilled. Peru's measure shall be assessed against each of these elements.

2.3.1 Existence of a legitimate objective

Firstly, the proper identification of the measure is determined not only by a Member's statements regarding what they are pursuing, but also by its design, structure and operation.⁶⁴ This is important because the Peruvian government indicates that it seeks to achieve the appropriate nutritional components for evaporated milk in order to protect human health or safety.⁶⁵ From the design and operation of the Regulation, however, this does not seem to be the goal. There is no evidence, even in the form of scientific basis available from MIDAGRI, revealing that there is a specific problem with the use of milk powder to manufacture evaporated milk. Even though there exists legislation and guidelines (such as Law No. 26842, General Health Law), these are not the only factors taken into account when establishing whether a Member is pursuing a certain objective. If this were so, Members could enforce large-scale protectionism through unilaterally defined goals, which could not be questioned by others. Thus, a more objective test is incorporated into WTO law.

Without belabouring much on this issue, we believe that the real objective of the measure may be to support the domestic milk industry. This is because historically, the milk production industry in Peru has not been performing well since the majority of milk producers are small, under-equipped artisanal producers.⁶⁶ By amending the regulation in question, it appears as though Peru intends to promote the local production sector by empowering them to produce

⁶³ See this Memorandum: p.14- p.16.

⁶⁴ Appellate Body Report, US-Tuna II (Mexico), para. 314 citing the Appellate Body Report, US-Gambling, para. 304.

⁶⁵ Explanatory Memorandum p.21-23; Peruvian Law No. 26842, General Health Law and Regulation of Milk and Milk Products.

⁶⁶ Explanatory Memorandum p.9, When MIDAGRI conducted a survey to establish the main challenges that producers have, they mentioned that they require equipment to produce milk products.

more evaporated milk.⁶⁷ Part IV of the Explanatory Memorandum seems to support this conclusion because it conducts a thorough cost-benefit analysis concerning the amendment of the Regulation on evaporated milk. The focus of this analysis is the amount of economic benefit the domestic dairy industry can gain. The improvement of the health conditions of the Peruvian consumers is not mentioned.⁶⁸ This is a good indicator that the primary objective of the amendment may be to protect the domestic industry and as a consequence, this adversely affects the competitiveness of imported products.

2.3.2 Trade restrictiveness of the measure in fulfilling the legitimate objectives

The manner in which Peru seeks to achieve the stated objectives appears to be trade-restrictive and may contravene Article 2.2 of the TBT Agreement.

The Appellate Body in *US-Tuna II (Mexico)* suggested a weighing exercise to determine whether a measure is "necessary," wherein the trade-restrictiveness of the technical regulation is weighed against the degree of the contribution that it makes to achieve the identified legitimate objectives. The risk of non-fulfilment is also considered, meaning that it must be determined what detriment would occur if the objective is not pursued in this manner.⁶⁹ In this regard, the trade-restrictiveness of the measure is weighed against possible alternative measures which are reasonably available, and the degree of their achievement of the objective.⁷⁰ Each of the identified objectives will be analysed against these tests by considering: (i) whether the measure, at all, contributes to the identified objectives; (ii) the necessity of the measure; and (iii) the reasonably available alternatives which Peru could pursue to achieve the intended level of protection.

2.3.2.1 The measure likely does not contribute to the targeted objectives

On the face of it, it does not appear as though the measure contributes either to the objective of protection of health or safety, or to modernization of the milk production industry. In assessing the measure's contribution, due regard should be given to the sixth recital of the Preamble of the TBT Agreement as well as the measure's design, structure and operation.⁷¹ This is important because the sixth recital recognizes that a Member has a right to pursue a legitimate objective at the level that they consider to be appropriate.

Regarding the objective for protecting human health, Peru argues that it is concerned with the low nutritional value of milk produced from powder, supposedly because the protein/milkfat ratio of the milk is distorted by milk powder.⁷² It argues that under the previously utilized CODEX STAN 281-1971, protein/milkfat ratio was 0.79, while under the newly applied FDA standard, the protein/milkfat ratio is 0.92.⁷³

Accordingly, Peru conducted a comparative nutritional value of protein/milkfat ratio under both the FDA and CODEX STAN 281-1971, with the baseline being the ratio for fresh milk. The analysis revealed the protein/milkfat ratios to be as follows: for fresh milk, it is 0.91, for evaporated milk under the FDA standard, it is 0.92 and for evaporated milk under the CODEX standard, it is 0.79. Peru thus sees it necessary to implement this amendment because it will allow evaporated milk to be closer to the protein/milkfat ratio contained in fresh milk.

⁶⁷ See also Peruvian Ministerial Resolution No. 297-2017 MIDAGRI-The National Plan for Livestock Development and the National Agricultural Policy 2021-2030.

⁶⁸ Explanatory Memorandum, pp.33-39.

⁶⁹ Appellate Body Report, US-Tuna II (Mexico), para 318.

⁷⁰ Appellate Body Report, US-Tuna II (Mexico), para 321.

⁷¹ Appellate Body Report, US-Tuna II (Mexico), para 317.

⁷² Explanatory Memorandum p.21-23; Tables N. 6, N. 7, N.8 and N. 10.

⁷³ Ibid.

This way, consumers retain the original nutritional benefits of milk products. To this extent, the measure may partly achieve the stated objective, as it optimizes the protein/milkfat ratio.

However, it is important to highlight that some have argued that this change of ratio degrades the quality of milk, by making it more "watery."⁷⁴ The Dairy Committee of the National Society of Industries termed "[t]he attempt to ban the use of high-quality powdered milk for the production of evaporated milk" as "a populist measure that threatens family nutrition."⁷⁵

Regarding the objective of modernization, it is unclear how the exclusion of milk powder from the definition of 'evaporated milk' will ensure that the MYEPs and natural persons producing evaporated milk have access to equipment or that the sector sees full modernization. In 2021, the Peruvian authorities conducted a survey to find out the problems faced by milk producers and 50% of them identified inadequate plant equipment as a challenge, while 40% identified high cost of plant manufacturing.⁷⁶ Based on this feedback, it follows that the design, structure and operation of the measure aimed at modernization by fully equipping plant manufacturing, perhaps progressively. However, there appears to be no genuine link between the objective to modernize this sector and the removal of milk powder from evaporated milk.

Lastly, the context for interpreting Article 2.2 also includes Article XX of the GATT and this is important since the test of 'necessity' involves establishing a genuine relationship between the objective being pursued and the measure.⁷⁷

For these reasons, Peru's measure seems inconsistent with Article 2.2 because the relationship between the measure and objective is unclear.

2.3.2.2 The measure is likely more trade-restrictive than necessary

Even though Peru's measure may partly achieve the objective to ensure that the protein/milkfat ratio of evaporated milk is as close as possible to that of fresh milk, it is likely more trade-restrictive than necessary to protect the quality for consumers. Assessing 'effectiveness' in the context of Article 2.2 requires considering the 'limiting effect of a measure' beyond what is required to achieve a Member's objective.⁷⁸

In this case, Peru's measure essentially limits importation of milk powder by restricting it from its traditional use, i.e. the manufacture of evaporated milk. It does so to achieve protection of human health, however, it is likely that this objective is sought in a manner which unnecessarily limits imports of milk powder from the U.S. because the same could be achieved by alternative, reasonably available and less-restrictive means.

First, it is important to highlight that Peru provides no scientific basis to demonstrate that milk powder as a component of evaporated milk is harmful to consumers. In fact, some studies have demonstrated some of the nutritional *benefits* that come with using milk powder.⁷⁹ Second, based on the data provided by Peru,⁸⁰ the required protein/milkfat ratio in evaporated milk may also be achieved by reducing the milk powder used during the manufacturing process, *i.e.*,

⁷⁴ 'Milk does not get dirty: Patricia Chirinos wants to drink 'watery' powdered milk' La República (Lima, April 29, 2022) <https://agronoticias.pe/ultimas-noticias/la-leche-no-se-ensucia-patricia-chirinos-quiere-tomar-leche-en-polvo-aguada/> accessed September 25, 2022.

⁷⁵ 'Dairy industry does not support proposal to make evaporated milk only with fresh milk' La República (Lima, March 15, 2022) https://larepublica.pe/economia/2022/03/15/sni-industria-lactea-no-apoya-propuesta-para-elaborar-leche-evaporada-solo-con-leche-fresca/ accessed September 25, 2022. ⁷⁶ Explanatory Memorandum, p.10.

⁷⁷ Appellate Body Report, *China-Publications and Audiovisual Products*, paras 243-245.

⁷⁸ Appellate Body Report, US-Tuna II (Mexico), paras 319 and 323.

⁷⁹ A. Olagunju, A. Muhammad, S. Aliyu, S.B. Mada, R. Isah, S.A. Abdullahi, Z.O. Audu, 'Nutritional Values of Powdered Milk Commercially consumed in West Africa', 20 August, 2013, International Journal of Food Nutrition and Safety.

⁸⁰ Explanatory Memorandum p.21-22.

by using smaller quantities of it. Therefore, there is no need to entirely ban this product from the Peruvian milk market.

With regard to the objective of modernization, the amendment is likely more restrictive than necessary because it restricts importation of milk powder, while making no direct contribution to the development of the local milk-manufacturing industry. This is because applying the reasoning of the Appellate Body in *US-Tuna II (Mexico)*, the trade restrictiveness of the measure must be weighed against Peru's objective to increase modernization of production in the dairy sector.⁸¹ Additionally, the Panel in *Australia-Tobacco Plain Packaging* reasoned that in order to establish whether a measure contribution made by the challenged measures themselves²⁸² and this entails 'ascertaining the actual contribution'.⁸³ In this case, there is no information sufficient to enable easy identification of the actual, specific contribution which the measure makes to the modernization objective.

Prior to this amendment, U.S. dairy producers imported milk powder to Peru which was used to produce evaporated milk. This was helpful for Peruvian producers because they do not manufacture milk powder and are thus heavily reliant on imports from the U.S.

In making this assessment, we consider whether the measure has any impact on the modernization objective, *i.e.*, would blocking the importation of milk powder to Peru assist in ensuring that MYEPs and natural persons in the artisanal industry have plant equipment for efficient dairy processing? Based on the available information, the answer is likely "no" because there is nothing to indicate that excluding milk powder from the production of evaporated milk would make any contribution to the modernization goal which Peru seeks to achieve. It is unclear that the importation of milk powder was ever an impediment to the Peruvian Government achieving this objective. In fact, as observed from Peruvian data in the Explanatory Memorandum, blocking out these imports is detrimental to the industry as it drastically reduces revenue earned from such importation.

In this way, the measure is likely more trade-restrictive than necessary to achieve both objectives because it unnecessarily restricts importation of milk powder without linking such restriction to achievement at any level.

2.3.2.3 There are less-restrictive, reasonably available alternatives which would contribute to the same level of protection

In any case, there exist reasonably available alternatives which would not be as trade-restrictive and would still meet Peru's preferred level of protection. The standard to demonstrate that an alternative is reasonable and is less restrictive only stretches to the extent that the complainant (i) identifies the alternatives and (ii) demonstrates a *prima facie* case that they would still meet the same level of protection.⁸⁴

Firstly, regarding the nutritional objective, Peru could regulate the quantities of milk powder that are used in the manufacture of evaporated milk. This alternative is readily available because it would primarily only entail the formulation of a similar regulation, which would require that fewer quantities of milk powder are utilized in the manufacture of evaporated milk. It is also less restrictive because it does not have the limiting effect which the amendment in question has.

⁸¹ Appellate Body Report, US-Tuna II (Mexico), para 318.

⁸² Panel Report, Australia-Tobacco Plain Packaging, para 7.506.

⁸³ Panel Report, Australia-Tobacco Plain Packaging, para 7.483.

⁸⁴P. Bossche, W. Zdouc, 'The Law and Policy of the World Trade Organization', Fourth Edition.

Secondly, regarding the objective of modernization, Peru could utilize the import revenue received from the importation of milk powder from the U.S. as well as the other dairy products which are imported into Peru. According to the United States-Peru Free Trade Agreement (PTPA), milk powder and other dairy products are subject to a gradual tariff elimination. While a tariff-rate quota (TRQ) will be applied for 16 years from 2009, the amount of milk powder higher than the quota will be subject to extra tariffs.⁸⁵ For example, the quota for 2021 was 18,038 metric tons, ⁸⁶ while the actual quantity of imported milk powder from the U.S. was 28,000 metric tons, far beyond that quota. Peru may easily attain the import revenue from the goods beyond the quota until 2025, as it has been recording an increase in imports of milk powder, especially from the U.S.⁸⁷ Judging by this trend, it is predictable that the imports may continue to increase gradually, and this would be a good source of revenue for Peru to invest in technological advancement of machinery to produce milk products.

Both these alternatives are presented to make a *prima facie* case that they are available to Peru in place of the present measure, which is likely more trade-restrictive than necessary.

2.4 The Measure may violate Article 2.4 of the TBT Agreement

Before analysing whether Peru fails to comply with the harmonization obligation contained in Article 2.4, it is important to introduce the intention behind this obligation.

When examining whether the measure is consistent with Article 2.4, we must determine: (i) whether there exists or there is an imminent completion of a relevant international standard; (ii) whether the international standard has been used as a basis for the technical regulation; and (iii) whether the international standard is an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued, taking into account of fundamental climatic or geographical factors or fundamental technological problems.⁸⁸

2.4.1 A Relevant international standard exists

Before the amendment of the Regulation, Peru based its measures on an international standard, CODEX STAN 281-1971.⁸⁹ In order to constitute an "international standard," it should first constitute a "standard" and be adopted by an "international standardizing body" for the purposes of the TBT Agreement.⁹⁰ Therefore, it should be examined whether CODEX STAN 281-1971 falls within both scopes under Annex 1.2 of the TBT Agreement.

First, CODEX STAN 281-1971 constitutes a "standard," because it specifies rules for evaporated milk, dealing with its terminology, composition, and labelling requirements. Additionally, the compliance is voluntary, since WTO Members can choose whether to comply with it.⁹¹ Therefore, CODEX STAN 281-1971 qualifies as a "standard" within the definition stipulated in Annex 1.2 of the TBT Agreement.

Second, it was recognized by the Panel in EC – *Sardines* that the Codex Alimentarius Commission is an "international body" within the meaning of annex 1.4 of the TBT Agreement.⁹² It is an internationally recognized standardizing body that develops standards

⁸⁵ Annex 2.18 (2) (d) of the PTPA, paragraph 9 of Appendix I to Peru's Schedule to Annex 2.3 of the PTPA.

⁸⁶ Paragraph 9 of the Appendix I to Peru's Schedule to Annex 2.3 of the PTPA.

⁸⁷ Explanatory Memorandum, p.12, Table No. 3.

⁸⁸ Panel Report, US – Tuna II (Mexico), para. 7.627 (referring to Panel Report, EC – Sardines, paras. 7.61-7.139 and Appellate Body Report, EC – Sardines, paras. 217-291).

⁸⁹ Article 2.1 of the Regulation on Milk and Milk Products.

⁹⁰ Appellate Body Report, US - Tuna II (Mexico) (2012), para. 356.

⁹¹ About Codex Alimentarius, accessed September 25, 2022">https://www.fao.org/fao-who-codexalimentarius/about-codex/en/>accessed September 25, 2022

⁹² Panel Report, *EC – Sardines*, para. 7.66.

for food products and is highly reputed in this field. Peru also recognized its status in EC-Sardines case.⁹³ Therefore, CODEX STAN 281-1971 constitutes an international standard.

Lastly, CODEX STAN 281-1971 is "relevant" for the Regulation at issue. A plain reading of the term "relevant" is "bearing upon or relating to the matter in hand; pertinent."⁹⁴ The title of CODEX STAN 281-1971 is "Standard For Evaporated Milks" and the amended Regulation lays down the denomination and composition of evaporated milk, indicating that both of them deal with the same product, namely evaporated milk. The scope of CODEX STAN 281-1971 covers evaporated milk made of fresh milk, which the Regulation also covers. CODEX STAN 281-1971 also includes, inter alia, essential composition and quality factors (Article 3), hygiene (Article 6), and labelling (Article 7), while the Regulation includes similar corresponding provisions. Additionally, the using of CODEX STAN 281-1971 before amending the Regulation per se clearly shows that Peru also regarded this international standard as a relevant one for its Regulation. Therefore, CODEX STAN 281-1971 exists as a relevant international standard.

2.4.2 The international standard is not used as a basis for the technical regulation

It is vital to point out at the outset that not any and every inconsistency will frustrate the requirement of "used as a basis." As the Appellate Body found in EC - Hormones, "based on" is not the same as "conform to."⁹⁵ The latter involves a much higher threshold.⁹⁶ An international standard is used as a "basis" for a technical regulation when it is used as the principal constituent or fundamental principle for the purpose of enacting the technical regulation. This requires "a very strong and very close relationship" between them.⁹⁷ The Appellate Body further clarified the term from the reverse side: "if the technical regulation and the international standard contradict each other, it cannot properly be concluded that the international standard has been used 'as a basis for' the technical regulation."⁹⁸ In light of this, the issue at hand is whether the Regulation's exclusion of some products from the definition of evaporated milk, when the international standard permits it, would contradict the latter.

A problem inevitably arises from the term "contradict" (as used by the AB), that is to what extent will the inconsistency reach the level of contradiction. Prior disputes have so far remained silent on the scope and quality of the deviation. However, they do make clear that "when compliance with the international standard can result in a violation of the domestic regulation, this latter cannot be deemed to be adopted 'on the basis' of the former." 99

In both, EC - Hormones and EC - Sardines, there were violations of Article 2.4 of the TBT Agreement, as the regulations concerned were more stringent than the relevant international standard, meaning that it is insufficient to only comply with the international standard. Therefore, it needs to be examined whether Peru's amendment will lead to a stricter regulation on evaporated milk. The comparison will focus on the parts relevant to the denomination and composition of evaporated milk, *i.e.*, Article 2.2 and Article 14 of the Regulation and Article 2, Article 3.1 and Article 3.3 of CODEX STAN 281-1971.

As for the denomination, the major difference between Article 2.2 of the Regulation and Article 2 and Article 3.1 of CODEX STAN 281-1971 is that the former prevents those evaporated milk made of milk powder from being named as "evaporated milk," while the latter

⁹³ Ibid.

⁹⁴ Panel Report, EC - Sardines, para. 7.68, quoting Webster's New World Dictionary (William Collins & World Publishing Co., Inc. 1976), p. 1199.

⁹⁵ Appellate Body Report, EC – Hormones, para. 166.

⁹⁶ Appellate Body Report, EC – Hormones, para. 163.

⁹⁷ Appellate Body Report, *EC – Sardines*, paras. 243-245.
⁹⁸ Appellate Body Report, *EC – Sardines*, para. 248.

⁹⁹ Filippo Fontanelli, ISO and Codex Standards and International Trade Law: What Gets Said is Not What's Heard' (2011) 60 Int'l & Comp LQ 895, p.990.

permits this classification. As for the composition, Article 14 of the Regulation raises the ratio of protein/milkfat from 0.79 to 0.91.

In summary, by adopting FDA (21 CFR 131.130), the Regulation narrows the raw materials of evaporated milk to fresh milk and lifts the ratio of protein/milkfat, both of which leads to a stricter standard. Such an amendment ultimately precludes products made of milk powder being named and labelled as "evaporated milk," which contradicts the relevant international standard. Therefore, Peru has stopped using the international standard as a basis for its Regulation.

2.4.3 The international standard is both effective and appropriate for the fulfilment of the legitimate objectives pursued

The Appellate Body clarified that the burden of proof of the third element also rest on the Claimant,¹⁰⁰ which means that Peru does not need to prove that CODEX STAN 281-1971 is ineffective or inappropriate to fulfil the so-called "legitimate objectives." It is any member challenging the measure that needs to prove CODEX STAN 281-1971 is both effective and appropriate.

As discussed above, the Regulation probably does pursue some legitimate objectives, including the protection of human health by raising the protein/milkfat ratio and the modernization of the dairy industry, especially the production chain of evaporated milk. However, CODEX STAN 281-1971 as an international standard is both effective and appropriate for the fulfilment of those legitimate objectives pursued. Though the last sentence of Article 2.4 of the TBT Agreement recognizes that there may exist some barriers leading to the ineffectiveness and inappropriateness of the international standard, like fundamental climatic or geographical factors or fundamental technological problems, no such barriers exist in Peru.

An "ineffective means" is a means which does not have the function of accomplishing the legitimate objective pursued, whereas an "inappropriate means" is a means which is not particularly suitable for the fulfilment of the legitimate objective pursued. Effectiveness focuses on the results, while appropriateness relates more to the nature of the means employed.¹⁰¹ This view is supported by the Appellate Body, as it found that "it is conceptually possible that a measure could be effective but inappropriate, or appropriate but ineffective."¹⁰² Both requirements need to be met for a measure to be consistent with Article 2.4, and CODEX STAN 281-1971.

With respect to the first objective, *i.e.*, the protection of human health or safety, CODEX STAN 281-1971 is both effective and appropriate. The Appellate Body in EC – Sardines found that the consideration of effectiveness and appropriateness of the standard at issue were interrelated because of the nature of the objectives of the EU Regulation, since both of these were decisively influenced by the perceptions and expectations of consumers.¹⁰³

In the case of the Peruvian Regulation, CODEX STAN 281-1971 is an effective and appropriate standard to protect the health of Peruvians since consumers can purchase those evaporated milk products with an optimized protein/milkfat ratio.

Firstly, the CODEX STAN 281-1971 is effective in achieving the objective regarding nutrition requirements. Peru explains that the CODEX STAN 281-1971 has a higher minimum requirement on milkfat (7.5%) than the FDA standard (6.5%), while their minimum protein

¹⁰⁰ Appellate Body Report, *EC – Sardines*, para. 282.

¹⁰¹ Panel Report, *EC – Sardines*, para. 7.116.

¹⁰² Appellate Body Report, *EC – Sardines*, paras. 285 and 289.

¹⁰³ Appellate Body Report, EC – Sardines, para. 289.

requirements are both close to 6%. Therefore, the protein/milkfat ratio of the FDA standard is closer to 1 (0.92) while the protein/milkfat ratio under CODEX STAN 281-1971 only achieves 0.79, rendering the former standard a more ideal one.

However, there are at least two reasons why the CODEX STAN 281-1971 remains effective if Peru wants to provide its consumers with more protein/milkfat-balanced evaporated milk. The core idea is to achieve the ideal ratio by either decreasing the percentage of milkfat or increasing the percentage of protein under the international standard.

First, the denomination of evaporated milk under CODEX STAN 281-1971 is subdivided into different products, based on their milkfat percentages. The subdivisions are (1) Evaporated (whole) Milk (7.5% minimum milkfat requirement); (2) Evaporated Skimmed Milk (1% minimum milkfat requirement); (3) Evaporated Partly Skimmed Milk (1% minimum milkfat and 7.5% maximum milkfat requirement); (4) Evaporated High-fat Milk (15% minimum milkfat requirement). ¹⁰⁴ All of them contain the same minimum protein requirement, which is 34% in milk solids-not-fat, *i.e.*, minimum protein = (minimum milk solids - milkfat) * 100 * 34%. These subdivisions of evaporated milk leave enough flexibility for regulators in Peru, enabling them to adjust the ratio between protein/milkfat, while still employing the classification of "evaporated milk."

Using the Evaporated Partly Skimmed Milk as an example, Peru can fix the minimum requirement of milkfat at 5%, which falls within the permitting scope $(1\% \sim 7.5\%)$. In this scenario, the protein content should be (20% - 5%) *100 * 34% = 5.1, while the milkfat is 5. The protein/milkfat ratio is 1.02, which is quite close to 1. This can be achieved without switching to the FDA standard, since what Peru wants is only a balance of the protein/milkfat ratio.¹⁰⁵ According to Article 7.1 and Article 7.5 of CODEX STAN 281-1971, the evaporated milk will be labelled to the subdivided level, enabling the consumers to distinguish between them and to choose the one they need. The objective of providing nutritious evaporated milk can therefore be fully achieved without monopolizing the general description "evaporated milk" only made of fresh milk. Peru can inform the consumers that the Evaporated Partly Skimmed Milk contains less fat and is more suitable for direct consumption, as suggested by the alternatives before.

Second, Article 3.3 of CODEX STAN 281-1971 establishes the composition requirements of Evaporated Milk. It leaves some flexibility, allowing Peru to achieve its objective under this label rather than under "Evaporated Partly Skimmed Milk." Since the composition requirements of Evaporated Milk set by CODEX STAN 281-1971 are the minimum protein and milkfat requirements, Peru can increase the minimum requirement of protein, making the protein/milkfat ratio closer to 1. In analysis under Table 10 of the Explanatory Memorandum, the MIDGARI explains that any raw material that exceeds the coefficient of 0.9375 increases the protein level above what is needed; however, due to costs it is not feasible.¹⁰⁶ Therefore, it is possible to add milk powder, whose protein/milkfat ratio is 0.96 to achieve the balance.

Peru argues that it is not feasible to add such raw materials due to cost reasons. It may rely on the fact that the price of milk powder imported from the U.S. (S/2.40 per liter) is almost eight times as expensive as fresh milk (S/1.00 ~ S/1.50 per liter).¹⁰⁷ However, there are at least two reasons to rebut this point.

¹⁰⁴ Article 3.3 of CXS 281-1971.

¹⁰⁵ Explanatory Memorandum, p.22.

¹⁰⁶ Explanatory Memorandum, p.23.

¹⁰⁷ 'Collection of fresh milk by the dairy industry fell 14% between January and February' La República (Lima, April 28, 2022) https://larepublica.pe/economia/2022/04/28/acopio-de-leche-fresca-por-parte-de-la-industria-lactea-cayo-14-entre-enero-y-febrero/ accessed September 25, 2022.

First, the actual costs incurred by using milk powder per unit of evaporated milk may not be that high. Since milk powder is the concentrated product obtained after removing water from fresh milk, its content of nutrients per unit will be higher and its volume of addition will be much lower than the latter. Furthermore, the price of raw materials is not the only element that the producers are concerned with. The stability of supply is also one of the elements.¹⁰⁸

The supply of imported milk powder is more stable than fresh milk in Peru. Not only because milk powder is easier for storage and transportation due to its low moisture content,¹⁰⁹ but also because of the instability of fresh milk collection caused by both COVID-19¹¹⁰ and the high atomization and informality of the artisanal dairy industry, which accounted for nearly half of the national production of fresh milk in 2021.¹¹¹

Second, as reasonable economic actors, the evaporated milk producers are self-interested and will pursue their profits optimally.¹¹² In other words, they would replace milk powder with fresh milk if the supply was actually cheaper and more stable. Data also proves that Peru's argument seems to be a merely a pretext for its protectionism. From 2008 to 2021, *i.e.* before the amendment, and when the market for evaporated milk's raw materials was under free competition, more and more producers voluntarily chose to add milk powder when manufacturing evaporated milk, rather than using fresh milk as the sole raw material.¹¹³ Contrary to this trend, the use of fresh milk dropped from 88.4% (2007) to 58.1% (2021), a 30% decrease in total.¹¹⁴ This indicates that the evaporated milk producers regard imported milk powder as more cost-effective compared with domestically produced fresh milk. It is their deliberate choice to use imported milk powder.

In any case, Peru should not decide what is more cost-effective on behalf of its market, yielding to domestic strikes held by some dairy farmers.¹¹⁵ Since this will not only damage the foreign exporters of milk powder, but also damage its domestic producers by forcing them to use fresh milk when more and more producers have voluntarily decided not to do so.

Secondly, CODEX STAN 281-1971 is appropriate to achieve the objective regarding nutrition requirements. Beyond the different thresholds for the nutrition content, another difference between CODEX STAN 281-1971 and the FDA standard is that the latter limits the permissible raw materials only to fresh milk. However, as discussed above, it would be unfair to regard CODEX STAN 281-1971 as inappropriate to achieve its nutritional objective, when it can reach the target of protein/milkfat ratio and in absence of special reasons to explain why it will be inappropriate. The properties of evaporated milk made of milk powder are essentially not different from those of evaporated milk made of fresh milk.¹¹⁶ Furthermore, Peru has itself listed some foreign legislations in the Explanatory Memorandum,¹¹⁷ which do not limit the raw materials of evaporated milk only to fresh milk. By listing them, Peru implicitly accepted that the use of milk powder in evaporated milk production is a common practice worldwide.

¹⁰⁸ Nigel Harris, John Palmer, World Crisis: Essays in Revolutionary Socialism (1st edn, Routledge 2021).

¹⁰⁹ Cargo Handbook, 'Milk, dry of powdered' https://cargohandbook.com/Milk,_dry_of_powdered accessed September 25, 2022.

¹¹⁰ Explanatory Memorandum, p.7.

¹¹¹ Explanatory Memorandum, pp.9-10.

¹¹² Levy, D.M. Paul J. Zak (ed.), 'Moral markets: The critical role of values in the economics' (2010) J Bioecon 12.

¹¹³ Explanatory Memorandum, p.19.

¹¹⁴ Ibid.

¹¹⁵ 'MIDAGRI presents decree to make changes to the milk regulation' La República (Lima, March 14, 2022) https://larepublica.pe/economia/2022/03/14/midagri-presenta-decreto-para-hacer-cambios-al-reglamento-de-la-leche/ accessed September 25, 2022.

¹¹⁶ J.A. Nieuwenhuijse, 'Concentrated Dairy Products: Evaporated Milk' (2011) Encyclopedia of Dairy Sciences.

¹¹⁷ Explanatory Memorandum, p.15.

For example, the European Union Legislation (75/118/EEC), amended by 2001/114/EC and 2007/61/EC, ¹¹⁸ defines condensed milk (evaporated milk) as "Partly dehydrated milk containing, by weight, not less than 15 % fat, and not less than 26.5 % total milk solids."¹¹⁹ While partly dehydrated milk is defined as "the liquid product, whether or not sweetened, obtained by the partial removal of water from milk, from wholly or partly skimmed milk or from a mixture of these products, which may have a mixture of cream or of wholly dehydrated milk (which is milk powder) or both, the addition of wholly dehydrated milk not to exceed, in the finished products, 25 % of total milk solids."¹²⁰ The difference between the 2007 version and 2001 version is the definition of "partly dehydrated milk", where the former deletes the qualification "directly" in the term "obtained directly by the partial removal of water". The amendment makes it clear that evaporated milk can also be produced by adding milk powder, though there is a maximum 25% limitation on the use of it in evaporated milk.

Similarly, in the legislation of Chile, the definition of evaporated milk is "the liquid product obtained by partial removal of water from milk", without the qualification of "only" in front of "milk".¹²¹ Another article classifies milk as natural milk as well as reconstituted milk, which can be obtained by adding drinking water to milk powder as long as it reaches the fat content requirement.¹²² These two legislations regulate the nutrition content without limiting raw materials of evaporated milk only to fresh milk, which is in line with CODEX STAN 281-1971.

Other large economies' legislations like China,¹²³ the United Kingdom¹²⁴ all permits milk powder to be added when producing evaporated milk. These all indicate that the nature of such a regulation is reasonable. Therefore, CODEX STAN 281-1971 is both effective and appropriate to achieve the nutritional objective.

With respect to the second objective, *i.e.*, the promotion of the production chain of evaporated milk, CODEX STAN 281-1971 is also both effective and appropriate for it secures the supply of raw materials. Under CODEX STAN 281-1971, Peruvian producers can use more reliable imported milk powder rather than fresh milk, which smooths out the production chain. The stability of the production chain is even more imperative after COVID-19 has significantly damaged the production chain from its source, *i.e.*, the collection of fresh milk.¹²⁵ Milk powder is not only easier for storage and transportation, but also easy to access.¹²⁶ Therefore, compared with only limiting the raw material to fresh milk, CODEX STAN 281-1971 is even more effective and appropriate, since it expands the scope of raw materials that can be used. In other words, it strengthens the stability of the evaporated milk production chain by enlarging the sources of raw materials, which lowers the risks of supply chain disruption.

¹²² Article 204 (Food Sanitary Regulation DTO ND 977/96).

¹¹⁸ Council Directive 2007/61/EC (OJ L258, p27, 04/10/2007) of 26 September 2007 amending Directive 2001/114/EC relating to certain partly or wholly dehydrated preserved milk for human consumption. ¹¹⁹ Annex I 1(b) of 2001/114/EC.

¹²⁰ Annex I 1 of 2001/114/EC, amended by 2007/61/EC.

¹²¹ Article 214 (a) (Food Sanitary Regulation DTO ND 977/96).

¹²³ Article 3.1 (Evaporated Milk, Sweetened Condensed Milk and Formulated Condensed Milk GB 13102-2010).

¹²⁴ Article 2 and Schedule 1 (Condensed Milk and Dried Milk (England) Regulations 2015 No. 675).

¹²⁵ Explanatory Memorandum, p.10; 'Small milk producers, the most affected during the state of emergency' La República (Lima, April 29, 2020) <https://larepublica.pe/economia/2020/04/28/pequenos-productores-de-leche-los-mas-afectados-durante-estado-de-emergencia-covid19/> accessed September 25, 2022; Acosta, A., McCorriston, S., Nicolli, F., Venturelli, E., Wickramasinghe, U., ArceDiaz, Scudiero, E.L., Sammartino, A., Schneider, F., Steinfeld, H., 'Immediate effects of COVID-19 on the global dairy sector'(2021) Agricultural Systems 192.

¹²⁶ Explanatory Memorandum, p.12.

Finally, the harmonization obligation under Article 2.4 of the TBT Agreement still leaves some flexibility¹²⁷ and allows Members to adapt policy to their fundamental climatic or geographical factors or technological problems.¹²⁸ Since harmonization based on international standards may not be desirable in all contexts due to divergent national preferences and circumstances,¹²⁹ this is not the case for Peru. Peru emphasizes that its consumers have distinct consumption habits rooted in history and prefer consuming evaporated milk directly rather than for culinary purposes.¹³⁰ However, this will not constitute a fundamental climatic, geographical factor, or a fundamental technological problem invalidating the effectiveness and appropriateness of the international standard.

The factors mentioned by Article 2.4 of the TBT Agreement are admittedly illustrative rather than exhaustive because it uses the term "for instance". However, consumers' habits may not constitute such a variable factor. According to the *ejusdem generis* principle, which is recognized in US - COOL when determining the legitimate objectives listed in Article 2.2 of the TBT Agreement,¹³¹ those factors should be of the same type or kind as the ones explicitly listed in that provision. Therefore, the factors listed in Article 2.2 of the Regulation, should qualify at least two conditions: (1) the degree needs to reach the fundamental level; (2) the difficulties incurred are physical impossibilities, since climatic, geographical or technological factors only generate physical impossibilities. Consumers' habit cannot fulfil either of these conditions. On one hand, very slight difference between the ratio of protein/milkfat will not make a great impact on consumers' habits; on the other hand, consumers' habits will be shaped by the States' policies.

A better way to provide consumers with evaporated milk that can be consumed directly is to allow them to choose between those qualified products, rather than to limit their choice to only evaporated milk made with fresh milk. For example, Peru can label the protein/milk fat ratio on the package of evaporated milk and explain whether it is appropriate for culinary use or direct consumption. While a necessary precondition for this possibility is that Peru permits the evaporated milk producers to compete in the way they want, and its only concern shall be the final ratio of protein/milkfat, let alone whether there is any milk powder added or not.

In conclusion, CODEX STAN 281-1971 is a relevant international standard, which is both effective and appropriate to achieve those legitimate objectives and shall be used as a basis for technical regulation. The TBT Agreement obliges Members to harmonize their technical regulations to reduce restrictiveness of their policies to international trade. Article 2.4 of the TBT Agreement was intended to prevent exactly the kind of behavior sought by Peru through the amendment. By replacing the international standard with the FDA standard, Peru is picking and choosing standards favoring its domestic dairy industry under the so-called legitimate objectives and thus violating Article 2.4 of the TBT Agreement, as the international standard is both effective and appropriate to achieve its objectives.

3. Conclusion

In summary, the amendment to the Regulation is a technical regulation within the meaning of Annex 1.1 and 1.2 of the TBT Agreement. We argue that this amendment of the Regulation likely constitutes a violation under the TBT Agreement, particularly Articles 2.1, 2.2 and 2.4.

¹²⁷ Wijkström, Erik and McDaniels, Devin, 'International Standards and the WTO TBT Agreement: Improving Governance for Regulatory Alignment' (2013) <https://ssrn.com/abstract=2258413> accessed September 25, 2022.

¹²⁸ The last sentence of Article 2.4 of the TBT Agreement.

¹²⁹ WTO, 'The WTO Agreement Series: Technical Barriers to Trade', (*WTO Publication*, August 2014) https://www.wto-ilibrary.org/content/books/9789287042194> accessed September 25, 2022.

¹³⁰ Explanatory Memorandum, p.22.

¹³¹ Appellate Body Report, US – COOL, paras. 443-444.

The measure may violate Article 2.1 because it likely accords less favorable treatment to imported milk powder than that accorded to like domestic product, *i.e.*, fresh milk. The measure violates Article 2.2 because it is unnecessarily restrictive and essentially bans importation of milk powder into Peru. The measure appears disguised as a way to protect consumers by ensuring that they acquire full nutritional benefits. Also, it is disguised as Peru's way of achieving modernization of the milk production industry. However, it is unclear how the technical regulation contributes to the achievement of these objectives. In the unlikely event that it does, there are less restrictive and reasonably available alternatives which Peru could pursue. The measure also likely violates Article 2.4 because it deviates from an international standard, which exists and is both effective and appropriate for the fulfilment of the alleged legitimate objectives.

In truth, Panels and Appellate Bodies such as in the case of US - Shrimp and US - Tuna II (*Mexico*) have been reluctant to approve a claim of violation of Article 2.2. This is due to the policy space which WTO Members enjoy in the formulation of regulations aiming at pursuing various objectives. A claim under Article 2.4 would have a higher likelihood of success in comparison with a claim under Article 2.2 of the TBT Agreement.

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