EU, Colombia, Peru and Ecuador's Free Trade Agreement: a sustainable relationship?*

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Abstract

After a challenging negotiating process launched in 2007, the European Union (EU) signed and applied a free trade agreement (FTA) with Colombia, Peru, and Ecuador. Assessments provided by the EU institutions revealed that this agreement would produce positive welfare effects mainly to the classic EU secondary and tertiary (machinery, transport equipment, and services) and Andean primary (fruit and vegetables) export sectors. At the same time, criticisms have been raised concerning the agreement: the economic asymmetry between these economies, the projected small welfare gains, and environmental issues, among others. Furthermore, while there is clarity about the negligible impact of the agreement on the EU output and employment, there is a lack of clarity surrounding the effects on these Latin American economies. Indeed, the agreement nature seems to be promoting the persistence -or even the deepening- of the technological dependence and the primary structure of these developing economies. Therefore, this paper analyses, from a qualitative and quantitative perspective, whether this FTA would be a contributing factor to either reinforcing a sustainable development process or increasing the Andean region's economic, political, and social instability. The paper claims an EU's exhaustive analysis of the agreement's effects on its trade counterparts. When an EU FTA encourages a long-run income convergence process, then the sustainability of the trade relationship may not only be strengthened but also expanded to other sectors and dimensions. Therefore, the critical negative ramifications of an EU- FTA on the counterparts should be identified and minimised through a flexible and compensation public policy according to the asymmetries among countries and within them. This «Good Samaritan» trade approach could be an effective way to protect EU citizens by projecting and expanding EU values and interests around the world. Moreover, this sustainable approach could be a key differentiator factor in the strategic trade negotiations with other regions compared to the USA, Canada, and China.

Keywords: sustainability, trade, structural change, asymmetries

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1 Introduction

From the early 1990s, the EU's 'strategic partnership' with Latin America had been based on a region-to-region dialogue with the region's three most important regional blocs, offering direct technical, financial and institutional support to enhance regional integration based on the EU's own experience. Nevertheless, after a challenging negotiation process launched in 2007 and failing to conclude an Association Agreement on a region-to-region basis with the Andean Community (CAN), the European Union (EU) signed and began – in 2012 – the provisional application of a bilateral Free Trade Agreement (FTA) with Colombia and Peru. Declared a 'mixed' agreement, the parliaments of all 27 members of the EU must ratify the agreement for it to come fully into force. To this date, it has yet to be ratified by Belgium. In November 2016, Ecuador concluded negotiations with the EU to be part of this agreement[1].

While assessments provided by EU institutions signalled overall welfare benefits to the EU's secondary and tertiary sectors (machinery, transport equipment, and services) and the Andean countries' primary export sectors (fruit, vegetables, and raw materials), several concerns have been expressed with regards to the real impact of the agreement, particularly in economic, social and environmental areas. Prior to its signature, civil society organisations and Trade Unions from the Andean countries and the EU alike highlighted the economic and social asymmetries within which this trade agreement would take place, in particular, the high-income inequality and record violations of workers and human rights that marked these countries. According to the EU - Andean Sustainability Impact Assessment of 2009, the gross national income (GNI) per capita of the EU was 3.3 times the GNI per capita of Colombia and 3.6 times the one of Peru[2]. The deteriorating situation of workers and human rights was also of concern: the criminalisation of social movements and indigenous communities, targeted killings and disappearances perpetrated on trade union members and activists, were and continued to be worrisome manifestations of structural inequalities and shrinking democratic space[3].

The Sustainability Impact Assessment showed a negligible impact on the European economy, greatly due to the fact that both partners from the Andean region occupy a minor place in the total of EU trade relations, around 0.3% for Colombia and 0.1% for Peru[4]while being more optimistic on the growth rate that the agreement would produce in both countries. Projections showed a 1.3% growth benefit for Colombia and 0.5% to 0.7% growth for Peru[5]. A few years into its application, there seem to be contradictory results. Economic growth in both countries has dramatically slowed down: from 4.6% in 2013 to 1.8% in 2017 for Colombia; in Peru, from 5.9% in 2013 to 2.5% in 2017[6]. However, this shows a general tendency in the region, mainly due to the slump incurred in global commodity prices, particularly oil. This has also affected the commercial balance as the value of exports to the EU from Colombia has dropped from 63.8 billion dollars in 2012 to 30.2 billion in 2015 and from 47.4 billion to 35.6 billion for Peru[7]. Given these short parameters, it is difficult to conclude that the agreement has incurred long-lasting benefits. Though it is crucial exogenous and regional tendencies significantly explain these trends, the promises of economic development that the agreement supposes are not necessarily realised.

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[1] The text agreed with Colombia and Peru included an accession clause stipulating that any future negotiation with any other Andean country wishing to be part of the agreement should be done on the basis of the already agreed text, limiting any possibility for a differentiated process. https://www.tni.org/files/download/eu-colombia-peru-fta_policy_brief-eu.pdf

[2] DG Trade. Andean Trade Sustainability Impact Assessment. (2009): pg. 24 - 27

[3] Transnational Institute. 'Time for Europe to put values and human rights above commercial advantage' https://www.tni.org/files/download/eu-colombia-peru-fta_policy_brief-eu.pdf

[4] Ibid.

[5] DG Trade. Ibid. 2009.

[6] Van Nuffel, Nicolas. Ratifier l'accord de commerce avec la Colombie, le Pérou et l'Equateur? CNCD 11.11.11. 19 march 2018. https://www.cncd.be/Ratifier-l-accord-de-commerce-avec

[7] Van Nuffel. Ibid.

A few years into its provisional application, therefore, it is important to ask whether the agreement is triggering or enhancing the sustainable development it promises or, on the contrary, whether it is perpetuating technological dependency and deepening the primary structure of these economies?

The paper proposes the following structure to answer this economic and structural key question. Section 2 provides a recap regarding the scope of the free trade agreement signed between the EU and Andean countries and its contents. Section 3 analyses in depth the structure and results of the Sustainability Impact Assessment (SIA) of the European Commission from an economic perspective. This Impact Assessment document has been used as the critical guideline to assess the economic, social, environmental and human rights elements and impacts regarding sustainability. Section 4 discusses whether a truly systemic economic development analysis is already included in this SIA, even as a methodological framework for the European Commission's sustainability analysis, and the reason why it should be used. Section 5 proposes a methodical approach called "Good Samaritan" to ensure that long-term economic sustainability is reached systematically. Finally, section 6 summarises the main conclusions and findings of the paper.

2 The EU - Colombia, Peru and Ecuador Free Trade Agreement in scope

Initially, negotiations aimed to conclude an Association Agreement with the Andean Community (CAN), under three main pillars - political dialogue, trade, and cooperation. Throughout the process, however, the agreement's content was perceived to have evolved substantially to that of a Free Trade Agreement, centred mainly on economic and trade issues. It raised concerns among countries such as Ecuador and Bolivia, which considered issues related to intellectual property and government procurements, in particular, to be detrimental to their countries' endogenous development. The agreed text is evaluated as an 'old generation' agreement centred on trade as the fundamental pillar of such agreements. The scope of the Treaty is nevertheless much larger. In compliance with WTO standards, on the basis of the General Agreement on Tariffs and Trade (GATT), the General Agreement on Trade in Services (GATS) and the Trade-Related Aspects of Intellectual Property Rights Agreement (TRIPS), the Treaty also considers aspects on investment, competition, public procurements and trade facilitation, as well as dispute settlement mechanisms in some areas, which were central to the Singapore issues agenda – WTO-plus issues – in 1996[8].

Trade in goods: The agreement poses for the progressive and gradual liberalisation of trade in goods and the facilitation of trade in goods through the application of agreed provisions regarding customs, standards, technical regulations, conformity assessment procedures and sanitary and phytosanitary measures[9]. Particular interest is given to full trade liberalisation in Agriculture, allowing duty-free market access for agricultural products such as palm oil, bananas, beef and sugar, ethanol and biodiesel from Colombia and Peru[10].

Trade in services: in conformity with the GATS agreement, this FTA proposes a progressive liberalisation of trade in services, particularly in telecommunication, transport, energy and financial sectors (Annex VII - List of Commitments on Establishment). Under the 'National Treatment' principle, equal treatment is granted to EU and domestic economic actors regardless of their size and resources. Despite the fact that the agreement does not contain a dedicated chapter to foreign direct

[8] The Singapore issues refer to the four working groups set up during the WTO's Ministerial Conference in 1996 aiming at deeper integration through the multilateral system: investment, competition, government procurements and trade facilitation. They were originally included in the Doha Development Agenda, but as they became contentious, particularly for developing countries, in 2004 it was agreed to proceed only on issues around trade facilitation. Since then, in regional and bilateral agreements, the EU has pushed to include WTO-plus issues, which refer to both trade-related issues that are outside the scope of the WTO negotiations (i.e., foreign direct investment, environmental issues, etc.), and issues within the scope of the WTO but where trade agreements outside of the WTO have gone further. See: Gstöhl & Hanf, 2014; Woolcock, 2014.]

[9] Trade Agreement between the European Union (and its Member States) and Colombia and Peru', Title III: Trade in Goods, p.27.

[10] DG Trade 2013 http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_113367.pdf

investments, as 'new generation' agreements do, liberalisation in financial services on the basis of the principle of 'non-discrimination"[11]. These financial services are related mainly to current payments and capital movements between contracting parties intend to provide 'a conducive environment to an increase in investment flows and 'to the improvements of the conditions of establishment between the parties. Safeguard measures, such as capital controls, are only allowed in exceptional circumstances 'when capital movements cause or threaten to cause, serious difficulties for the operation of the exchange rate policy or monetary policy'[12], yet these exceptions are not to exceed one year unless circumstances demand an extension.

In regard to the public procurements chapter, economic actors from the Parties gain greater access to the public procurements markets. The agreement provides the right to bid for contracts of central governments, sub-central departments, local municipalities, and state companies, with a few exceptions in sensitive areas (i.e. public services such as water, health, etc.) if the trade partner should wish to. In this agreement there is an extension of the WTO Government Purchasing Agreement (GPA) to Colombia, Peru, and Ecuador, though due to commitments of reciprocity, coverage is somewhat lower than with regard to the EU's commitment[13].

Intellectual property: while in multilateral negotiations Intellectual property rights was a contentious issue, specially from the perspective of developing countries, the EU-Colombia and Peru agreement illustrated how the EU sought to find compromise positions. The chapter on Intellectual Property reaffirms the Parties' commitments to the TRIPS agreement, as well as the Convention on Biodiversity and commitments to relevant agreements on copyright and patents. However, beyond these international obligations, in the case of biodiversity, the parties agree to cooperate to ensure that intellectual property rights are supportive of rather than detrimental to the rights of indigenous peoples and local communities, with the caveat that this is subject to domestic legislation. The latter also applies to the respect and preservation of knowledge innovations and practices of indigenous peoples and local communities (Woolcock, 2014). Another area of relevant developments where the EU has pressed for a TRIPS-plus agenda is the provisions on geographic indications (GIs), in which parties support GIs and commit not to register in future trademarks for supplies of the same or like product from another source. Here, while the commitments are the same among all trade partners, the EU has a longer list of goods subject to GIs than most of its trading partners (ibid.).

Trade and Sustainable Development: provisions under the Lisbon treaty in the EU's foreign policy promote the inclusion of topics related to human rights, democracy and the rule of law in association and free trade agreements. The agreement, therefore, contains an extensive 'Trade and Sustainable Development' chapter, which is, however, non-binding. All human rights and, in particular, labour rights principles are mentioned exclusively in this chapter, yet we may observe that if any of the economic actors concerned by this agreement incurs any violation, it will not necessarily be sanctionable. The chapter only foresees a dialogue mechanism allowing parties to set up a group of experts to observe any case of human rights violations within the framework of the agreement. It contrasts significantly with chapters of the agreement that are the object of dispute settlement mechanisms, such as the trade in services, competition, and intellectual property rights chapters.

From this evaluation, we can observe that the scope includes dispositions that go beyond trade in goods, with the purpose of deeper liberalisation in other key sectors of the partner-countries economies with potential economic, social and environmental impacts. The next section focuses on the Sustainability Impact Assessments (SIA) methodology and the report issued by the European

[11] Trade Agreement between the European Union (and its Member States) and Colombia and Peru, Title I: Initial Provisions. Chapter I: Essential elements, p.10.

[12] Trade Agreement between the European Union (and its Member States) and Colombia and Peru', Title V: Current Payments and movement of Capital, p. 209.

[13] The agreement on Government Procurement is a plurilateral agreement which regulates the procurement of goods and services by the public authorities of the parties to the agreement, based on the principles of openness, transparency, and non-discrimination.] In this framework, we observe there is no consideration of the possible asymmetries in size, capabilities, and resources of the economic actors from the parties, as under the pre-established 'national treatment' and 'non-discrimination' principles in some of the chapters, foreign and domestic economic actors would be able to have equal access to public procurement markets.

Commission. Their objective is to ensure that sustainability issues are identified and managed before a trade agreement through a policy recommendation. A deep understanding of the methodology and content of these kinds of reports provides relevant insights into the sustainability of any trade agreement, particularly about the EU-Andean countries' FTA. For this essay, the focus will be economic, notwithstanding the inclusion of relevant socioeconomic indications.

3 Sustainability Impact Assessments (SIA)

Since 1999, the European Commission (EC) - through DG Trade - have been implementing detailed sustainability impact assessments (SIA's) both prior to the signature and after the conclusion of negotiations of trade agreements. These reports are often performed by external consultants, who base their assessments on the "Handbook for trade sustainability impact assessment" (European Commission, 2016). It is a guide that proposes a structured methodology to assess the economic, social, environmental and human rights sustainability impacts of trade agreements in the EU, the partner country, and developing countries.

An SIA aims to provide a robust, in-depth analysis that estimates the most significant sustainability impacts, based on the Sustainable Development Goals (SDG) perspective, including therefore economic, social, human rights and environmental impacts. Examples of analytical tools typically deployed in SIAs are causal chain analysis, baseline scenario, quantitative and qualitative analysis and stakeholder inputs.

According to the Handbook, these analyses should consider the quantitative assessment of the likely effects of the agreement under negotiation on non-EU countries and partner countries, especially developing countries, by proposing mitigation measures when necessary.

From an economic perspective, the economic impact analysis is focused on assessing the likely consequences of the policy changes on variables such as output, employment, trade flows, prices, fiscal revenues, small and medium enterprises (SMEs), informal economy, income, and welfare. Through the application of a multi-regional Computable General Equilibrium model (IIDE Computable Equilibrium)[14], the economic analysis derives the economic impacts from the trade agreement implementation by estimating the adjustment process as the economy moves from the pre-liberalisation equilibrium to the new post– liberalisation equilibrium. The implications of the model are focused on the identification of the expected magnitudes of the increase or decrease in production in each economic sector.

From a time range perspective, the Computable General Equilibrium model results are projected on short (also called static) and long (also called dynamic) terms effects. In the case of the EU-Andean Trade Sustainability Impact Assessment (EUAT-SIA), the short-term effect represents the expected impact of implementing a trade agreement after approximately a decade[15]. The long-term effect represents effects in ten years based on the assumption that the trade agreement has already been in effect for approximately a decade. Thus, the time scope of the long-run effects analysis of the EU and Andean Countries FTA is about a decade's time window. From a sustainability and structural perspective, it seems that a significantly wider time window should be analysed. However, this critical aspect will be widely clarified in section four.

Nevertheless, it is quite relevant that the methodology recognises that the short-run effects will increase the number of dynamic effects/long-term effects. This link is projected to be tangible through

[14] This economic modelling framework is similar to the models used by the World Bank, the IMF and the OECD.

[15] The static setting represents, in effect, the assumed impact of implementing a trade agreement in 2018. The dynamic/long term setting represents effects in 2018 based on the assumption of the trade agreement already having been in effect for several years so that resulting changes in investment levels and installed capital stocks can be observed (Centre for Economic Policy Research and Institute for Development Policy and Management in the School of Environment and Development at the University of Manchester, 2009).

investment and innovation incentives, resulting in a faster pace of capital accumulation, again in a likely decade.

3.1 EU-Andean Trade Sustainability Impact Assessment (EUAT-SIA)

Based on the described methodology, four reports have been issued by the European Commission (EC) regarding the EU-Andean Countries FTA: the SIA's final report (2009), an SIA's position paper after the negotiations (2010), and two impact assessments updates of the FTA (2012 and 2016). The focus of this section is on the first report, as it sets the baseline of the sustainability impact analysis for the upcoming reports.

EU-Andean[16] Trade Sustainability Impact Assessment Final Report (2009)[17]

Overall, the main results of the assessment from an economic perspective were the identification of "modest income gains for all economies in all settings and scenarios". In absolute terms, the biggest gains occur in the EU and Colombia "where real incomes are projected to increase by up to €4 billion and €2,8 billion respectively". In relative terms, the highest gains are expected to be for Bolivia and Ecuador, "where real income is expected to increase by between 0.5 and 2 per cent of GDP". The EU's impact is marginal, with a lesser amount of than 0.1 per cent of GDP. Finally, from an aggregate perspective: "real income across all Andean countries will increase by €5 billion under the ambitious scenario". (CEPR et al., 2009). Regarding trade flows, a potential EU-Andean trade agreement "will have no significant effect on the EU's trade flows"; while for the Andean countries "imports and exports are expected to increase by between 3 to 10 per cent". Related to employment and wages effects, "for both skilled and unskilled labor are predicted to be minor", despite the fact it is expected an increase at the service sector. With no significant changes in sectoral output for the EU, while the vegetables, fruits, and nuts sub-sectors are projected "to increase by about 10 percent in Colombia and Ecuador". Concerning foreign direct investment flows from EU countries, they are expected to increase, especially in the service sector. A gross output increase of 1,5% is computed and accredited to this foreign investment.

From a sector perspective, the economic analysis provides relevant insights with regard to expected outcomes and impacts in the application of the agreement. Table 1 summarises the main effects and policy recommendations by sector in the EU and Andean countries that is made by the SIA. From a purely economic perspective, there seem to be positive impacts[18] on the economies of the two Andean countries in the short and long-run perspective. For instance, the agriculture (bananas and other commodities production), industry (wages levels) and services sectors are projected to increase according to the final balance.

[16] The fact that two member states of the CAN (Bolivia and Ecuador) suspended their participation in the talks following internal divergences among CAN members has no impact on the overall validity of the conclusions reached by the study (European Commission, 2010)
[17] CEPR et al. (2009).
[18] From a social and environmental perspectives, serious potential negative effects were identified. Given the current scope of this paper these aspects are not analysed here, however this economic focus does not mean that they are not key from a sustainability perspective. Further, these non-economic effects could seriously threaten the agreement sustainability and even the expected positive economic effects. The understanding of the interconnections between economic and non-economic spheres, given its complexity, it would require entire innovative research.

Table 1. EU-Andean countries SIA: Economic Impacts and Policy Recommendation Summary

Sector	Impacts identified	Policy recommendation
Agriculture, processed agricultural goods	Potential for positive impacts of banana sector expansion (Colombia, Ecuador) and other agricultural commodities in Peru and Bolivia on household incomes and poverty reduction depends on the local re-investment of large foreign companies	#9 – Develop an extensive set of economic and social policies oriented to produce pro-poor growth and extend the benefits of agricultural growth to small farmers #21 – Identify and support vulnerable populations likely to be affected by transition and adjustment costs
Industrial Products	Positive impacts on wage levels of skilled and unskilled workers	No specific policy recommendation
Services	Growth in most service sectors leads to a general increase in demand for unskilled and skilled labour	No specific policy recommendation
Deeper Integration	The inclusion of investment in the agreement may lead to an inflow of FDI, act as an encouraging investment sign to non-EU investors and contribute to economic growth and a subsequent increase in employment	#4 - Binding measures on transparency of tax and non-tax incentives to attract FDI in the extractive industries and services sector
	Liberalisation of government procurement will create gains through increased competition and create transparency, thereby contributing to improved governance	No specific policy recommendation
	Trade facilitation measures will positively impact the business environment and facilitate the growth of investment and employment in export production	#19 – Strengthen trade facilitation reform beyond those measures that are agreed upon in the trade agreement. These should be accompanied by a reduction in domestic regulatory barriers to private sector development

Source: Centre for Economic Policy Research and Institute for Development Policy and Management in the School of Environment and Development at the University of Manchester (2009).

However, these potential benefits are contrasted with a set of significant socioeconomic and environmental impacts. They are also reviewed in the SIA, namely: a) the expansion of intensive agriculture, particularly in monocultures such as palm oil, which can lead to deforestation and biodiversity loss, and also as a result of the predicted expansion of timber industries. Also, it has been observed that the expansion of intensive agriculture in specific crops can lead to higher land concentration and social-related conflicts related to land tenure[19]. b) Investments in the energy and mining sectors are also identified as a driver of potential social and environmental impacts, as intensified social conflict could arise from the expansion of mining, hydrocarbon extraction, and logging activities in rural areas.

The report sets out some policy recommendations to mitigate the negative effects: a) increased monitoring and reporting on European companies' compliance with corporate social responsibility in the mining, oil and gas sectors; b) capacity-building and technical assistance in the fields of sustainable

[19] In Colombia, for instance, the GINI index on the concentration of land tenure is at 0.87. It is estimated that 86.3% of rural households, have 8.8% of the total cultivable land (less than 20 ha.), while 0.4% of rural households have 62.6% of cultivable land (more than 200 ha). See Absalon Machado, "Colombia rural: Razones para la esperanza". PNUD. 2011. Pg. 192.

forestry management, environmental protection, industrial restructuring and sanitary and phytosanitary controls; c) cooperation and support in enhancing environmental, public utility and financial sector regulation. Here it is important to note that principles related to 'national treatment' and 'non-discrimination' in trade in goods, services and market access to public procurements could potentially undermine the Andean countries' policy space to regulate financial flows[20] and support small and medium-sized companies. Public procurements remain an essential tool to boost domestic production[21].

Finally, and related to the structural dimension, the SIA's report promotes a set of measures related to industrial cooperation to support and promote industrial policy measures (European Commission, 2009). In 2010, the EU was financing various programmes, both at the national and Andean levels, linked to supporting export portfolio diversification and product development. Also, and under request from the Andean countries, the creation of bilateral mechanisms to share expertise and exchange best practices is being considered (European Commission, 2010).

The following section will extensively explore the critical aspect of the analysed EU and Andean countries' SIA related to the economic development impacts from a structural dimension. As it will be shown, this perspective is key to understanding the economic sustainability implications of the trade agreement in the long term and therefore provide an exhaustive assessment.

4 Trade Agreements' structural impacts

As the previous section has highlighted, both the Handbook for trade SIA and the different SIA reports are focused on the sustainability analysis from an economic, social, environmental, and human rights impacts of EU's trade agreements. However, it seems that from a sustainability perspective, a wider economic perspective is required. While economic growth is focused on the income expansion - gains of the economies -, economic development is a "process of economic growth that is based on the increase in an economy's productive capabilities: its capabilities to organise and, more importantly, transform its production activities" (Chang, 2014). Therefore, productive capabilities are the key elements of economic development and long-term economic growth.

Despite the SIA's Handbook (European Commission, 2016) having plenty of income impact analysis references – from an economic growth perspective -it seems that a structural analysis - from an economic development perspective -is at least not strongly emphasized.

According to our research, we did not find any reference to either structural change or technology upgrade measures in the last version of the Handbook for Trade Sustainability Impact Assessment (European Commission, 2016). However, the previous version of the Handbook (European Commission, 2006) considers a structural change metric -the gross fixed capital formation- as a core sustainability indicator. Moreover, despite the analysis of this structural indicator and a set of references regarding technological upgrades on the EU-Andean Trade SIA[22], these findings are not even explained in the executive summaries of the reports (CEPR et al., 2009 & European Commission, 2010).

While economic growth analysis is a necessary condition for economic sustainability, it is not sufficient. Therefore, economic development implications should be carefully analysed because they

[20] Vander Stichele, Myriam and van Os, Roos (2010) Business as Usual How Free Trade Agreements Jeopardise Financial Sector Reform, SOMO. Available online at: http://www.somo.nl/publications-en/Publication_3611

[21] Transnational Institute. 'Time for Europe to put values and human rights above commercial advantage' https://www.tni.org/files/download/eu-colombia-peru-fta_policy_brief-eu.pdf

[22] See: the Social Impacts Section (related to the potential increase in health problems resulting from contamination of water sources and soil by the mining sector), whose policy recommendations are: a) include a sustainable development chapter in the Trade Pillar of the Agreement stressing technological upgrading that minimises negative environmental externalities in the mining sector; and b) establish an institutional framework for the monitoring of environmental outcomes (CEPR et al., 2009).

will strengthen or deteriorate the economic growth conditions in the long run and, therefore, the long-term sustainability of the overall agreement.

Given its long-term and systemic relevance, a structural analysis should be a comprehensive section in any trade sustainability impact analysis, and their findings should be prioritised. Moreover, when an FTA includes a developing country, significant reasons justify an even deeper structural analysis. The reason behind this is that given the dramatic technological asymmetries -as is the case between EU and Andean countries[23]-, the entire sustainability of the trade agreement could be significantly threatened. Even worse, when these 'Low productivity capabilities' conditions are persistent after the agreement, the developing countries are even more dependent on commodities export incomes whose prices are determined by volatile commodity markets.

Therefore, if a trade agreement does not promote effective opportunities for industrial upgrading and, on the contrary, even deepens the primary structure of these low-productivity economies, this should be considered a critical sustainability issue.

But which aspects of a detailed structural analysis should be required from a sustainability perspective? Or in other words, which dimensions should be analysed to understand the structural impact of a trade agreement? Structural results can be measured by analysing the projected effects on different indicators and metrics such as the structure of production (i.e. the share of hi-technology industries in total manufacturing output), infrastructure (i.e. broadband connections per capita), skills (i.e. the share of workers with a university degree), and innovation activities (i.e. R&D spending as a share of GDP, or the number of patents per capita). However, there is a broad consensus among economists regarding the share of investment in GDP[24] as a relevant indicator to measure the economic development potential, or - more technically - the gross fixed capital formation (as a percentage of the GDP). This indicator is relevant given its proven impact on long-term economic growth. The rationality is that to be used, technologies should be absorbed in fixed capital, such as machines and structures. So, without a high investment rate in fixed capital (Gross fixed capital formation, GFCF), an economy cannot develop its productive potential (Chang, 2014).

4.1. Towards a detailed economic development or structural analysis

An extensive structural analysis is important to enhance the comprehensive economic and sustainable development of the Parties involved in the agreement. Therefore, if economic development should be promoted, economic development impacts should be rigorously analysed, measured, monitored and communicated. Not only the economic growth dimension.

Regarding a practical justification, structural analysis can deeply improve the understanding of the technology convergence and asymmetry processes among trade partners and their productive capabilities, potentialities and weaknesses to trade (ex-ante analysis). Moreover, structural analysis can be a helpful tool to assess the evolution of productive capabilities and, thus, the long-term economic, social and environmental conditions (ex-post analysis).

Also, a rigorous structural analysis can highlight the key drivers of economic growth between partners due to either a mere accumulation of factors or increases in productivity (Brown, 2006). In the end, these root factors will determine in the long term the living standards of the population, which is another key principle promoted by the agreement[25]. Finally, as globalization and trade are fundamental drivers of structural change, understanding its impact is a crucial task.

[23] Descriptive support about these asymmetries will be provided in section 5.

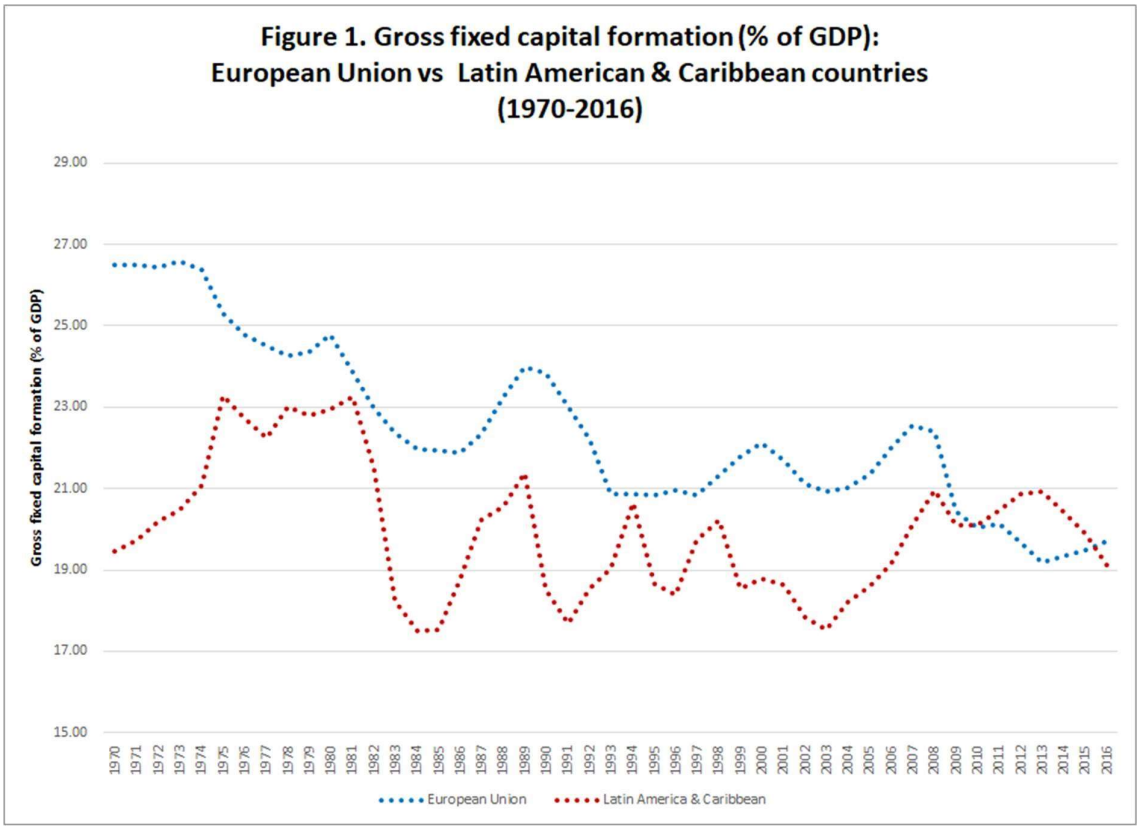
[24] Often referred as investment ratio.

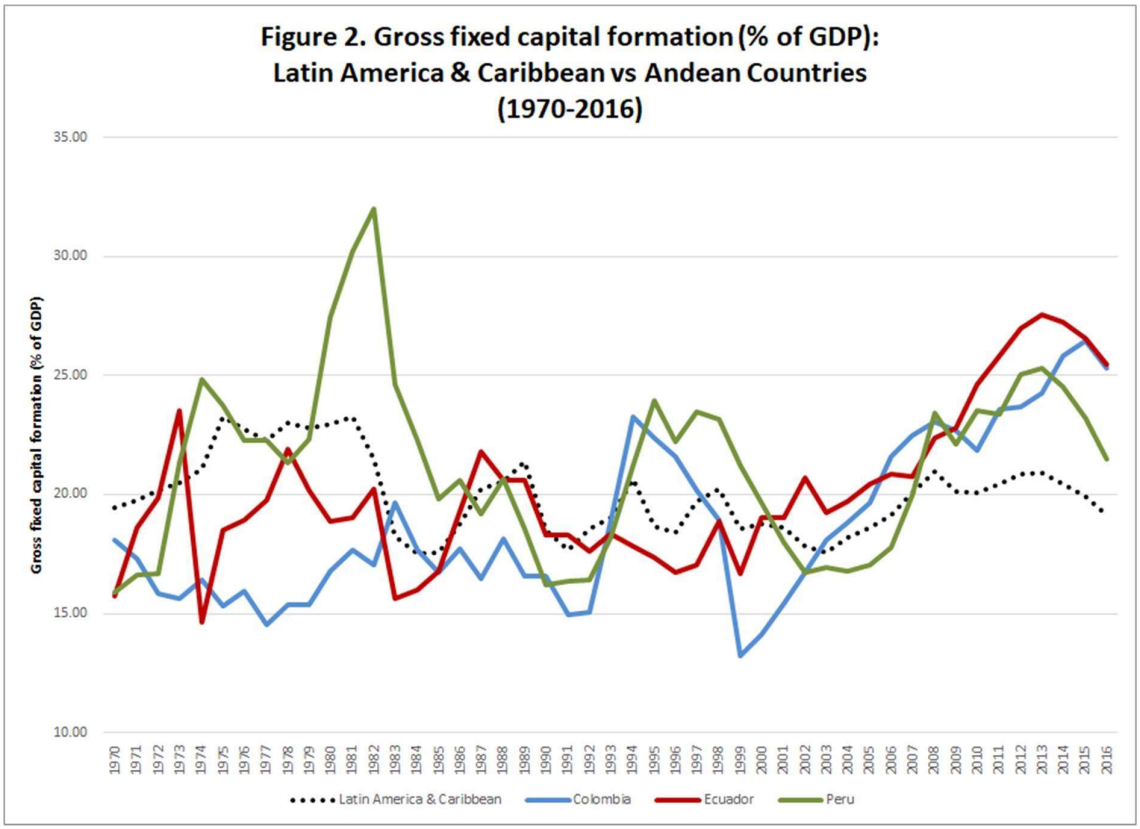
[25] See: Trade Agreement between the European Union (and its Member States) and Colombia and Peru (European Commission, 2012) Title I: Initial Provisions. p.5: "with the objective of reducing poverty, and creating new employment opportunities and improved working condition, as well as raising living standards".

While the following figures do not pretend to be an extensive ex-ante structural examination, they may show the analytical relevance of its outcomes. The time range selection should be a vital decision of this type of analysis. However, given its long impact and structural focus, it may be better to discuss decades rather than only years.

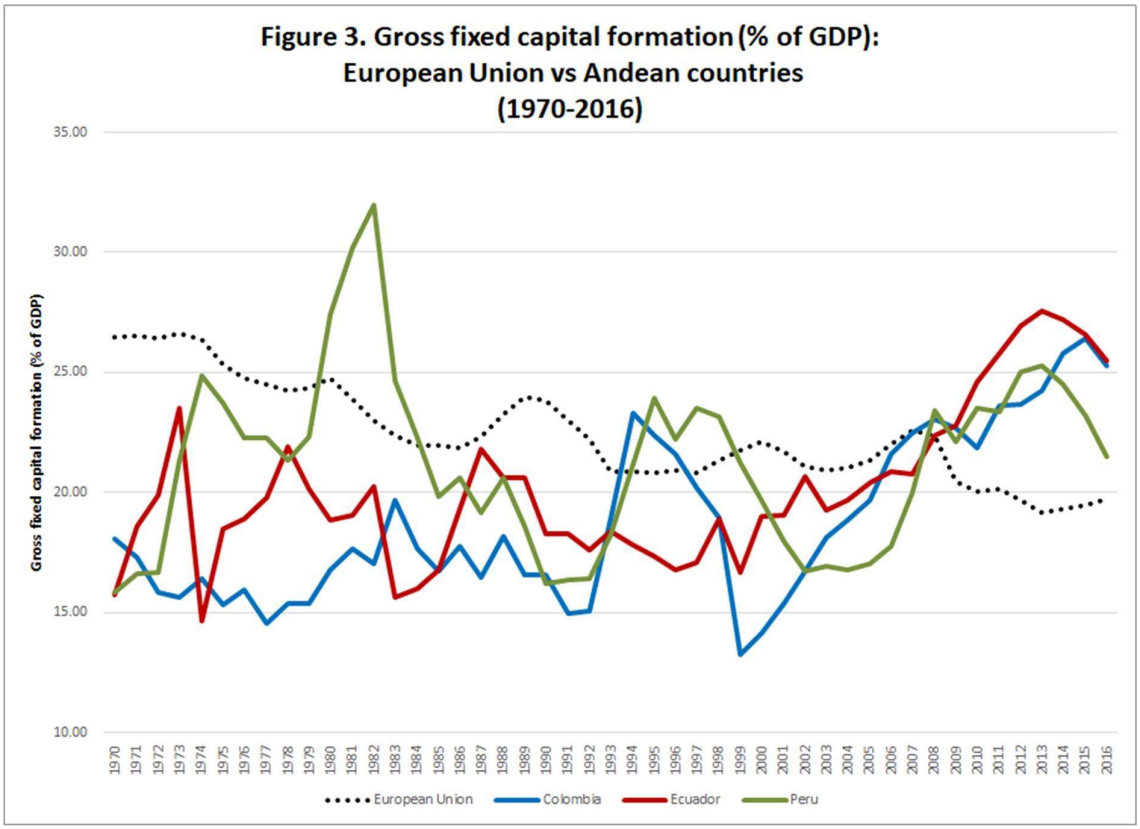
Figures 1-4[26] describes a set of plots related to gross fixed capital formation as a percentage of GDP or investment ratio explained before. This indicator may depict the level of technology absorbed by the economy through the formation of fixed capital. Figure 1 describes a clear convergence pattern during the last four decades between the investment ratios of the European Union and Latin American and Caribbean countries around 20% of their GDPs. It is clear - and an observed pattern - that developed countries are decreasing their investment ratios. Figure 2 portrays the comparison of the investment rates between the three Andean countries (Colombia, Ecuador, and Peru) and the average of Latin America and the Caribbean. Investment ratios of the Andean countries during the last decade are far above the average of the region (around 20%). The same conclusion can be deduced from Figure 3 as the investment ratios between European and Latin American countries are converging. Finally, Figure 4 relates the investment ratios of the Andean countries with two illustrative European Union countries: Germany and Greece. During the first two analysed decades (1970-1990), it seems that the investment ratios of these two countries were frequently higher than Andean countries (especially Colombia and Ecuador). However, there was a turning point from around 2008, when the ratios started to be systematically lower in Germany and Greece than in their Andean counterparts.

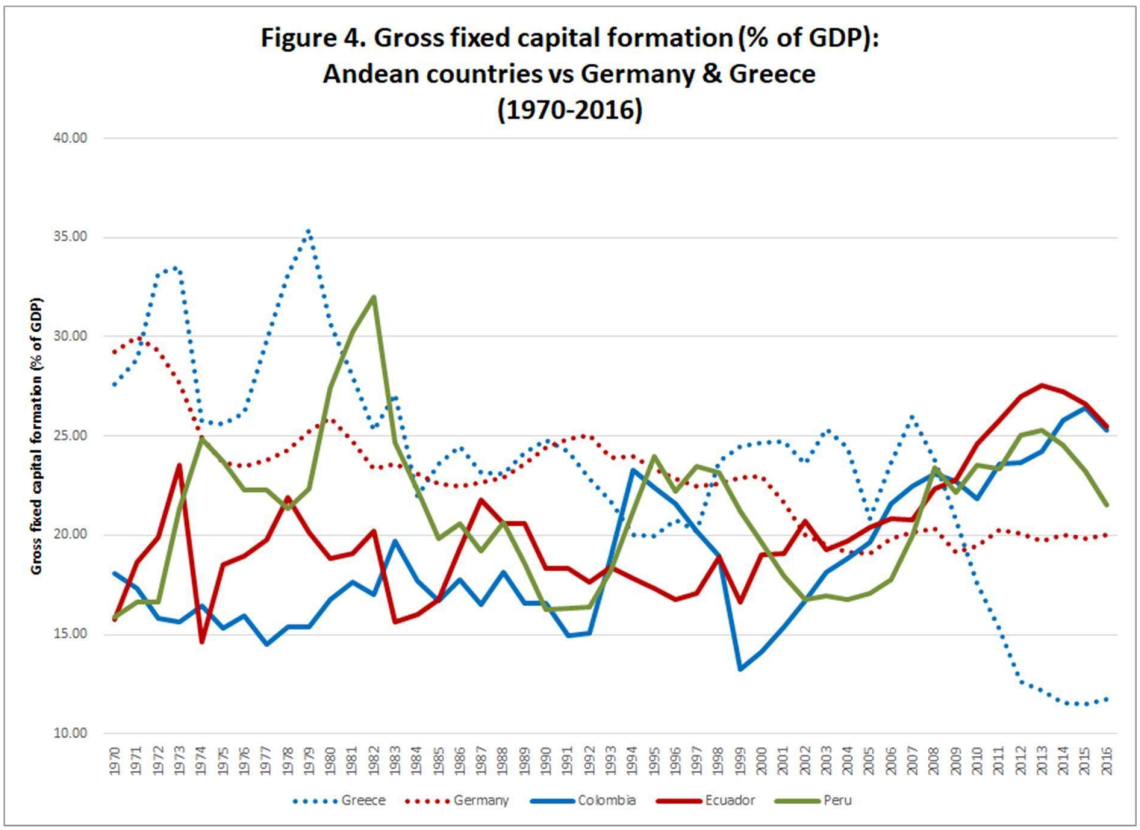
[26] The source of all the figures related with the indicator gross fixed capital formation, as percentage of the GDP is the World Bank national accounts data and OECD National Accounts data files (2018).





Source: World Bank and OECD (2018).





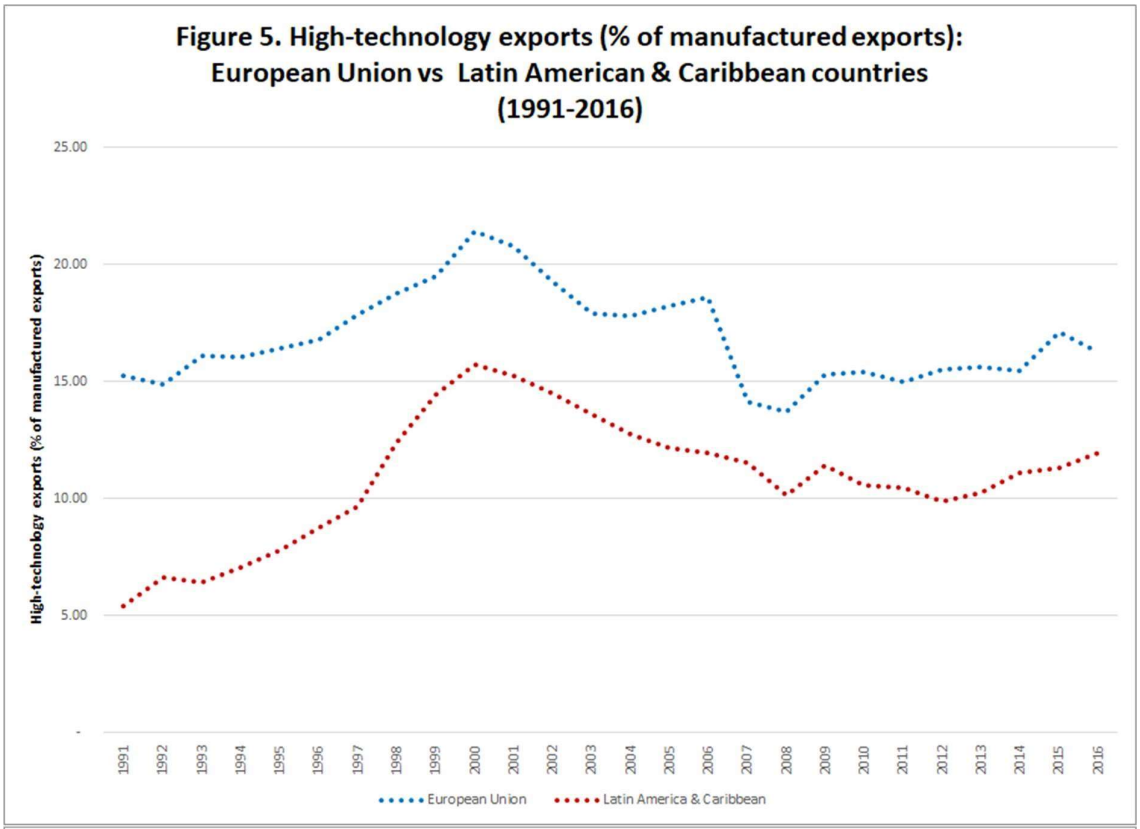
Source: World Bank and OECD (2018).

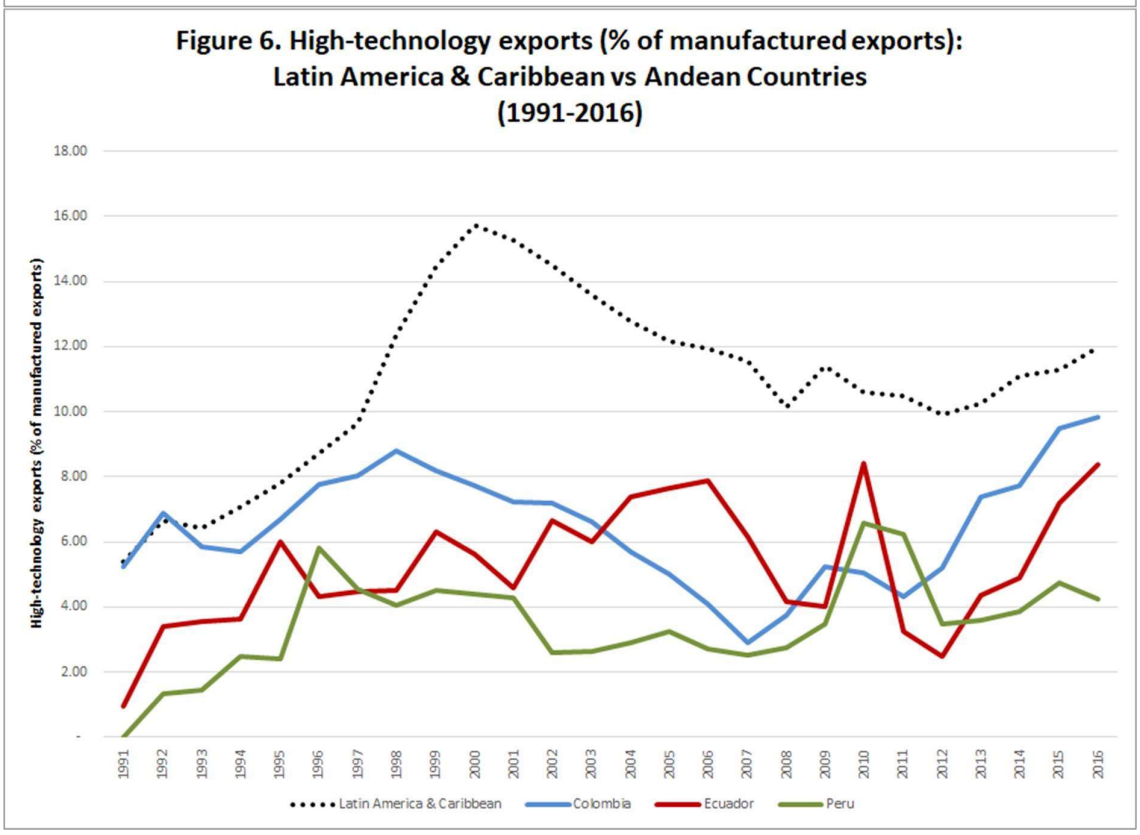
Even more insightful conclusions start to arise when the high-technology exports - as a percentage of manufactured export figures are analysed. While the investment ratio can be considered as an input indicator, given the level of investment in fixed capital in the economy, the high technology exports can be considered as an output indicator regarding the market results of these investments or efforts in the world. High-technology exports[27], as a percentage of total or manufactured exports- can directly describe the level of high-added value products exported by the origin country or region. It is a key indicator to understand the technological upgrade level of products - processes and skills behind - of a country that has been inserted through exports - actual sales - in the global market. For instance, constant and significant improvements in the high-tech exports share, could be an indication of a dynamic process of industrial upgrading and structural change with new and different goods and services produced continuously. High-technology exports usually are products with high R&D intensity, such as in aerospace, computers, pharmaceuticals, scientific instruments, and electrical machinery (United Nations, 2018).

Figures 5-8[28] describe, under the same approach, a set of plots related to high-technology exports as a percentage of manufactured exports. Figure 5 describes the significant gap between European Union and Latin American high-technology exports ratios during approximately the last three decades. However, this gap has constantly reduced from around 10 (1991) to 5 (2016) percentage points. Moreover, it seems that a common cyclical factor affects both curves. Figure 6 depicts Latin America and the Caribbean's high-technology export share versus those of Andean countries. Latin America and the Caribbean's benchmark is significantly and permanently higher than the Andean countries' participation by showing a relatively low presence of these countries in the high-tech global markets. Figure 7 portrays an even higher gap (around ten percentage points) between European Union countries share of high-tech exports and the Andean ones. Given this figure, the technological asymmetry between the EU and Andean countries is dramatically high. Furthermore, the technological asymmetry among Andean countries also seems significant. These kinds of asymmetries could trigger meaningful discussions regarding the structural differences among partners, especially when a trade agreement is applicable to many countries. Last but not least important, Figure 8 shows the gaps between high-tech exports of the Andean countries and Germany and Greece. While in comparison with Germany, the indicator asymmetry is dramatically high, when compared with Greece, high-tech share differences seem to be reachable by Andean countries in the short run.

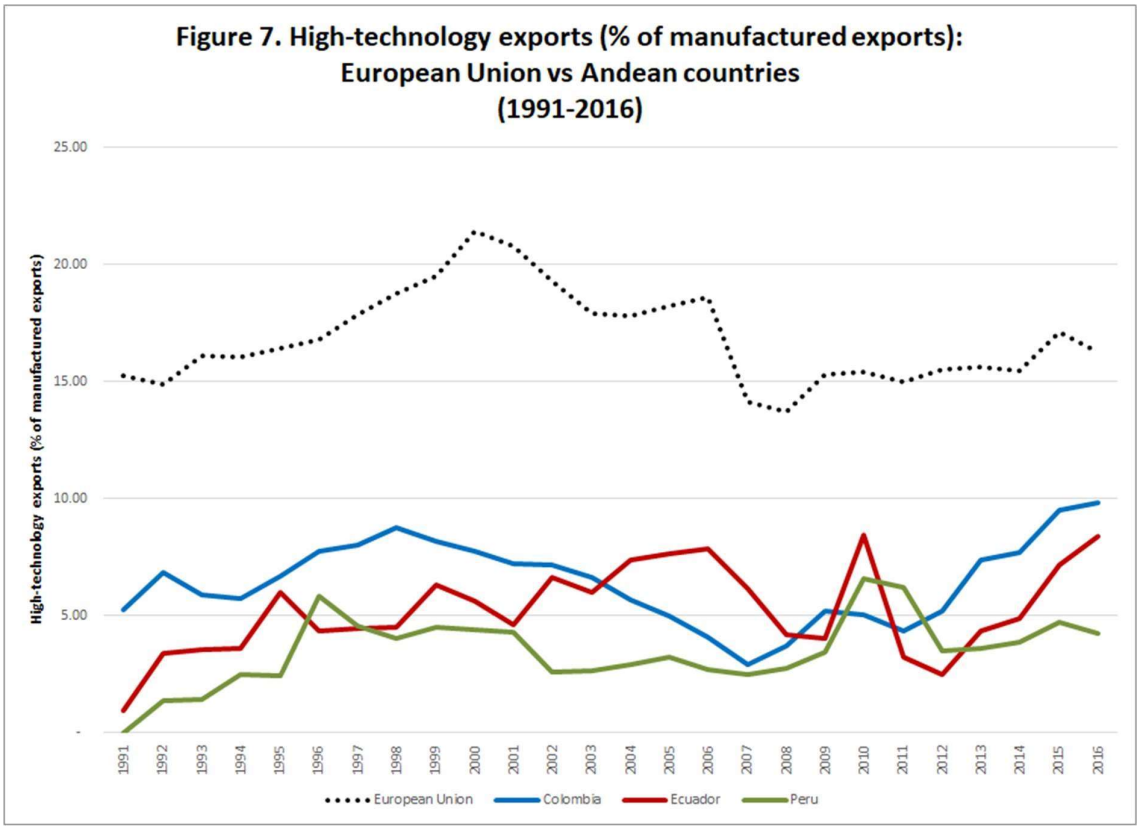
[27] There is some criticism about this indicator as it may not always reflect an increase in tech. It is widely know the Ireland's case. Using this indicator Ireland seems to more present in high tech markets than Germany. The reality is that Ireland assemble US high tech components to reexport it to the EU but does no have strong indigenous R&D capacities. Then, this metric should be carefully interpreted based on qualitative context and additional available metrics.

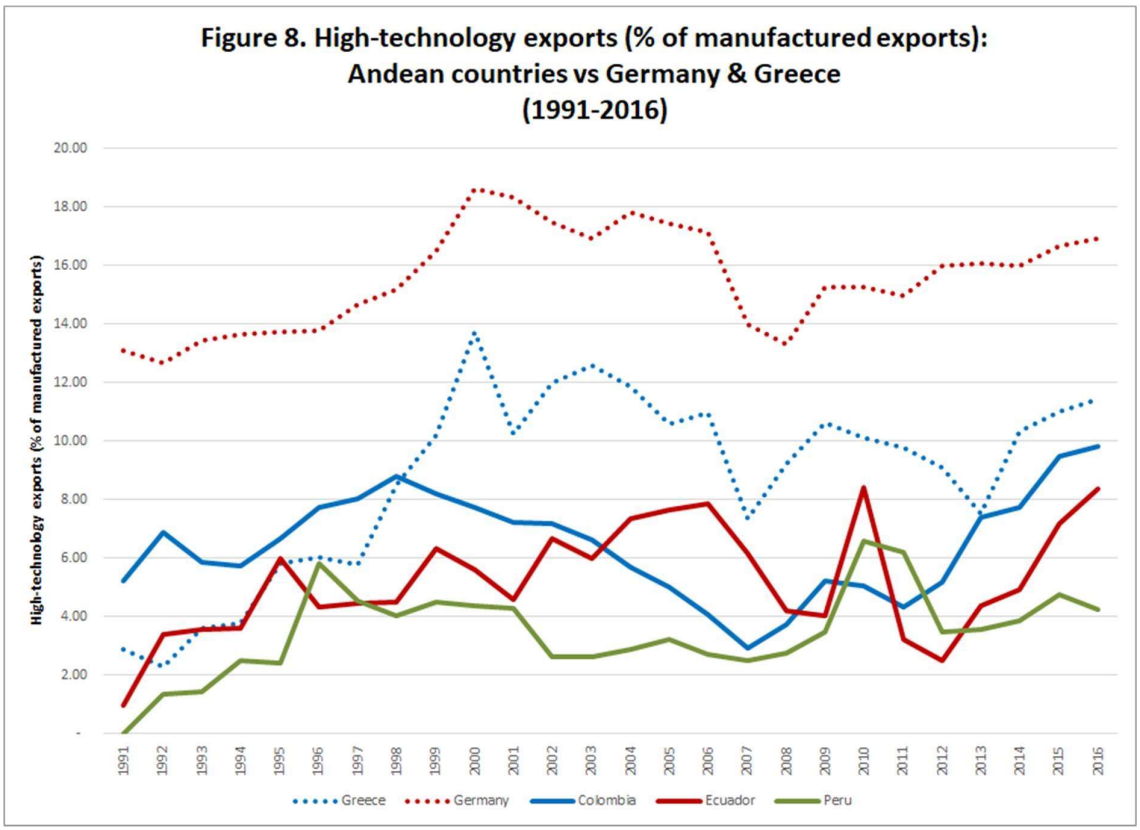
[28] The source of all the figures related with the indicator high-technology exports, as percentage of the manufactured exports is the United Nations, Comtrade database through the WITS platform (2018).





Source: United Nations, Comtrade database (2018)





Source: United Nations, Comtrade database (2018)

5 Towards a "Good Samaritan"[29] Approach for trade agreements

An explicit "Good Samaritan" approach as a conceptual and policy framework seems to be absent from the theoretical and policy debate about trade agreements. In contrast, the "Bad Samaritan" approach is very present in academic and policy debates, mainly thanks to the contributions of the economist Ha-Joon Chang (Chang, 2007). However, the seminal work of the "Bad Samaritan" approach can be found even before with the contributions of the so-called Developmentalist Economists (Chang, 2003).

The key point of what Chang termed a "Bad Samaritan" approach is a historical examination to explain how the advanced countries became rich. According to his perspective, in the past, developed countries employed a set of protectionist policies that permitted their infant industries to become strong enough to compete internationally[30]. However, these countries and the global institutions (such as IMF and World Bank) have recommended a standard set of economic policies (deregulation, free trade, patent/copyright protections) for many poorer countries.

In contrast to this perspective, it seems there is historical and empirical evidence about win-win and long-term trade partnerships. Interestingly, these partnerships were not trade agreements but broader economic and even geopolitical collaborations[31]. The conceptual and policy trade framework behind these partnerships could be called the "Good Samaritan" approach. This approach consists of a pragmatic interest in the trade partner effects to ensure the long-term sustainability of a trade relationship. The emphasis is on the undesired effects of the trade partner, given the natural incentive to focus only on its own potentialities and weaknesses. By the way, own trade undesirable effects should be considered under the same framework. It is a systematic and holistic approach to assessing FTA.

If the true purpose of an FTA is to achieve win-win outcomes (as these documents and their supporters constantly claim), a "Good Samaritan" approach[32]should be at the core of a standard Sustainability Impact Assessment (SIA) structure. Otherwise, the proposed win-win outcomes will simply not be sustainable, as they do not cope with the long terms effects and negative ramifications. Even further, they could generate significant welfare losses and benefit only short-term rent seeking interests (Rodrick, 2018).

Therefore, a “Good Samaritan” approach should lead the entire trade agreement life cycle from its seminal feasibility examination until its ongoing execution and posterior evaluation. The following key aspects are proposed to be considered in a standard application of a "Good Samaritan" approach[33]:

1. Raising the living standards of partner countries' populations is posed as a primary goal of any trade agreement. It can be easily found as a declaration on the first page of any trade agreement[34]. However, this primary goal seems to become a mere discursive requisite rather than a critical policy guideline. Therefore, sustainability impact assessments should focus on the economic development implications rather than only on economic growth effects.

[29] This term is inspired by the parable of the Good Samaritan (Lk 10:25-37), where Jesus graphically explains the implications of the highest christian value: love. Unlike others, even a priest, the good samaritan wants to help the poor.

[30] In this regard, Krugman (1987) and Grossman (1989) argue that when the production of new export goods involves learning-by-doing, then temporary support for an industry may be enough to achieve permanent competitiveness.

[31] Two well know historical examples may be the *Mutual Defense Treaty* established in 1953 among US and South Korea, and the *Marshall Plan* provided by the US to help rebuild Western Europe after World War II. Both were intended to promote economic recovery and stability in the regions, and they have trade implications. For instance, the increased economic activity resulting from the Marshall Plan aid helped to stimulate demand for US goods, which in turn contributed to the post-war economic boom in the US.

[32] Many of the aspects described on this section are based on the work of the economist Dani Rodrick (Rodrick, 2018).

[33] As is notorious, many of the described aspects are already included on the EU’s Sustainability Impact Assessments of trade agreements. However, the systemic understanding of all of them as an interactive set seems to be absent in the theory and policy debate.

[34] See: Trade Agreement between the European Union (and its Member States) and Colombia and Peru (European Commission, 2012) Title I: Initial Provisions. p.5.

Structural change analysis of the technological and efficiency impacts should be a standard chapter of a typical sustainability impact assessment.

Furthermore, given this prioritizing goal, the distributional effects should be understood from a social perspective and a structural and contextual economic perspective. These distributional concerns seem to be secondary in front of the overall income gains. Here, a holistic approach between economic, social, environmental, political and human rights areas should be required, analysing the combined effects from a systemic perspective rather than a "silo" one.

2. A deep understanding of the necessary and sufficient economic conditions for a successful trade agreement should be in place. Trade intensity, production complementarity, and supply chain linkages are vital variables to be assessed before the agreement's implementation. A high level of intensity, complementarity, and linkages increases the probability of a successful trade relationship.

   The supply chain linkages effects are particularly important among these key variables, usually excluded from the sustainability impact assessments. These reports should consider a realistic representation of the production structure among partner economies that can lead to different conclusions about the trade and welfare effects of trade policy. This kind of empirical analysis (Caliendo & Parro, 2009) enriches understanding of the complex network supply and demand interconnections among product structures and countries. Conclusions derived from these reports are trade cost elasticities by sector and country, intermediate inputs that are traded across different sectors, and tradable and non-tradable sectors interactions. One of the most important benefits of these studies is the identification of dispersion effects by an industry that could explain the potential variances regarding the average income estimations after a tariff reduction.

3. Both short- and long-term perspectives need clear identification of the current and potential mutual benefits and costs. The consequence of this "Good Samaritan" principle is clearly identifying the winners and losers of a potential trade agreement implementation. Moreover, a deep understanding of historical and empirical lessons learned from previous trade agreements experiences could be included, especially regarding the potentially undesirable effects of an agreement. While basic trade suggests that free trade is an 'optimal' policy for an economy, compensatory policies should be implemented to minimise the adverse effects and correct market failures through complementary policies. However, these compensatory and complementary policies are hardly designed and executed after a trade agreement.

4. A flexible public policy is required to deal with the expected and potential and unexpected negative ramifications. The flexibility aspect of this compensatory and complementary public policy is particularly significant due to the high complexity of the current trade agreements that usually go beyond sole tariff reductions. Patent rules, safety regulations, labour standards and investment investor courts are a few examples of the increasing complexity of agreements, as shown in section 2 of this paper. Additionally, linked to growing complexity, is the undeniable uncertainty about potential impacts on critical topics such as climate change, digitalization, artificial intelligence, and population boom, among others. Therefore, resilient public policy should be designed to deal - as much as possible - with a high level of ambiguity coming from external and uncontrollable aspects such as environmental and technological matters. At the same time, providing policy space to signatory countries to come up with and apply policies that regulate economic activity - as in the case of public procurements as a development tool for smaller and medium-sized enterprises - seems a key element to consider regarding economic development.

5. A transparent trade agreement lifecycle process. A higher level of transparency and open debate could likely minimise the impact of rent-seeking interests and politically well-connected firms, international banks, pharmaceutical companies, and multinational firms that could seriously jeopardise the sustainability of the trade agreement to both sides.

6 Conclusions

In light of the above, it is crucial to come back to the main question we aimed to answer throughout this essay: is the agreement triggering or enhancing the sustainable development it promises or, on the contrary, whether it is perpetuating technological dependency and deepening the primary structure of these economies? What could be some of the paths forward to enhance sustainable economic development?

For this purpose, we have relied on Sustainable Impact Assessments (SIAs), which provide preliminary insights and projections of the agreement's potential or expected impacts in different sectors of the partner countries' economies. Due to the methodology used, the SIAs present certain limitations, such as a strong focus on short-term economic variables such as income gains. Moreover, although it provides sustainable development considerations regarding socioeconomic, environmental and human rights impacts, we may argue that the SIAs, as the 'Trade and Development' chapter of the agreement, stand as advisory dispositions or principles that are not, however, enforceable.

From an economic perspective, the paper aimed to complement the assessments provided by the SIAs with a more structural analysis that could take into account other long-term relevant variables and factors that determine economic development beyond the economic growth focus. According to our research, we did not find any reference to either structural change or technology upgrade measures in the last version of the EU's Handbook for SIA. However, the previous version of the Handbook considers a structural change metric -the gross fixed capital formation- a core sustainability indicator. Moreover, despite the fact of the analysis of this structural indicator and a set of references regarding technological upgrades on the EU-Andean Trade SIA, these findings are not even explained in the executive summaries of the upcoming reports.

Structural analysis is focused on productive capabilities that will determine the long-term economic growth of an economy. Rigorous structural analysis can highlight the key drivers of economic growth between partners due to either a mere accumulation of factors or increases in productivity. In the end, these root factors will determine the population's living standards in the long term, a crucial principle promoted by the agreement.

A quantitative exercise of structural analysis was deployed by combining two key indicators: gross fixed capital formation (% of GDP) and high-technology exports (% of manufactured exports). While the first indicator showed a convergence trend regarding technology efforts between the EU and Andean economies, the second indicator described dramatic technological asymmetries among them. This analytical exercise highlights two relevant aspects: a) the importance of combining structural indicators to improve the understanding of the economic development conditions and b) the criticality of long time series to figure out the structural process. Given these basic figures and technological asymmetries, it is ambiguous to determine the agreement's impact on long-term sustainability. Further empirical research is required.

Finally, through the analysis made by Ha-Joon Chang and contributions from Dani Rodrik, the paper evaluated some key elements that should be considered in the relationship between the EU – Andean Countries. The agreement should be based on sustainability, one that enhances long-term sustainable

development, as the aim of the agreement itself supposes. This framework can be called the "Good Samaritan" Approach, as it consists of a pragmatic interest in the trade partner effects to ensure the long-term sustainability of a trade relationship. In practical terms, this approach may be structured as a sustainability impact assessment guideline that leads the entire trade agreement lifecycle from its seminal feasibility examination until its ongoing execution and posterior evaluation. Although most of the proposed elements are already covered in a standard typical EU SIA, a directive approach, closely aligned with the EU and agreement principles, may ensure their effective execution.

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Annex

Annex 1.

Gross fixed capital formation, as a percentage of GDP by year (1970-2016)

Year	European Union	Latin America & Caribbean	Greece	Germany	Colombia	Ecuador	Peru
1970	26.49	19.46	27.62	29.27	18.08	15.75	15.87
1971	26.51	19.74	28.85	29.97	17.32	18.61	16.64
1972	26.42	20.20	33.18	29.31	15.82	19.88	16.66
1973	26.60	20.48	33.50	27.71	15.63	23.53	21.35
1974	26.37	21.08	25.72	24.94	16.44	14.65	24.85
1975	25.31	23.27	25.61	23.65	15.30	18.51	23.74
1976	24.78	22.73	26.19	23.47	15.97	18.92	22.25
1977	24.52	22.25	29.78	23.76	14.52	19.78	22.29
1978	24.25	23.02	33.16	24.30	15.39	21.92	21.34
1979	24.35	22.79	35.41	25.21	15.39	20.16	22.32
1980	24.77	22.96	30.66	25.91	16.78	18.86	27.43
1981	23.87	23.27	27.97	24.75	17.65	19.05	30.22
1982	22.98	21.51	25.31	23.35	17.02	20.24	31.99
1983	22.37	18.22	27.13	23.58	19.68	15.62	24.65
1984	21.97	17.49	21.94	23.12	17.68	15.99	22.28
1985	21.94	17.54	23.57	22.61	16.71	16.79	19.84
1986	21.87	18.76	24.50	22.49	17.74	19.30	20.59
1987	22.35	20.23	23.18	22.65	16.49	21.79	19.18
1988	23.26	20.56	23.10	22.90	18.16	20.60	20.63
1989	23.98	21.38	24.19	23.58	16.59	20.62	18.57
1990	23.84	18.50	24.79	24.39	16.59	18.31	16.23
1991	22.99	17.68	24.20	24.86	14.96	18.30	16.34
1992	22.21	18.54	22.85	25.06	15.07	17.62	16.39
1993	20.85	19.04	21.73	23.94	18.89	18.36	18.21
1994	20.86	20.66	20.00	23.99	23.29	17.82	21.20
1995	20.84	18.67	19.96	23.36	22.40	17.33	23.96
1996	20.95	18.38	20.79	22.83	21.60	16.75	22.24
1997	20.85	19.72	20.19	22.49	20.21	17.07	23.50
1998	21.34	20.21	23.72	22.62	18.94	18.90	23.15
1999	21.77	18.53	24.50	22.90	13.25	16.66	21.24

2000	22.13	18.77	24.64	22.99	14.13	19.01	19.67
2001	21.70	18.63	24.74	21.68	15.40	19.05	17.97
2002	21.10	17.82	23.60	20.04	16.73	20.69	16.73
2003	20.94	17.54	25.32	19.51	18.11	19.24	16.92
2004	21.02	18.21	24.40	19.16	18.83	19.70	16.79
2005	21.34	18.62	20.83	19.07	19.67	20.42	17.06
2006	22.00	19.16	23.69	19.82	21.61	20.85	17.79
2007	22.56	20.10	26.01	20.12	22.46	20.77	19.99
2008	22.40	20.94	23.81	20.33	23.08	22.37	23.43
2009	20.45	20.11	20.79	19.16	22.70	22.81	22.14
2010	20.03	20.10	17.56	19.44	21.85	24.62	23.51
2011	20.13	20.47	15.27	20.27	23.60	25.82	23.35
2012	19.69	20.88	12.63	20.11	23.69	26.96	25.04
2013	19.18	20.92	12.16	19.70	24.26	27.55	25.30
2014	19.34	20.44	11.54	20.00	25.81	27.21	24.51
2015	19.50	19.89	11.52	19.85	26.44	26.58	23.20
2016	19.71	19.13	11.74	20.04	25.29	25.47	21.51

Source: World Bank national accounts data and OECD National Accounts data files (2018)

Annex 2.

High-technology exports, as a percentage of the manufactured exports, by year (1991-2016)

Country Code	European Union	Latin America & Caribbean	Greece	Germany	Colombia	Ecuador	Peru
1991	15.23	5.39	2.88	13.10	5.22	0.95	..
1992	14.87	6.65	2.29	12.66	6.86	3.41	1.35
1993	16.10	6.42	3.61	13.43	5.86	3.55	1.43
1994	16.06	7.08	3.79	13.64	5.71	3.62	2.49
1995	16.42	7.79	5.81	13.71	6.67	5.98	2.41
1996	16.80	8.73	6.02	13.77	7.74	4.33	5.82
1997	17.86	9.65	5.79	14.65	8.02	4.47	4.55
1998	18.75	12.35	8.48	15.18	8.78	4.49	4.04
1999	19.50	14.45	10.20	16.49	8.18	6.32	4.49
2000	21.41	15.74	13.75	18.63	7.74	5.62	4.38
2001	20.77	15.25	10.26	18.32	7.21	4.60	4.29
2002	19.27	14.49	12.00	17.45	7.17	6.65	2.61
2003	17.92	13.58	12.57	16.90	6.62	5.98	2.64
2004	17.78	12.76	11.85	17.82	5.69	7.36	2.89
2005	18.20	12.16	10.58	17.42	4.99	7.66	3.23
2006	18.59	11.94	10.96	17.14	4.08	7.87	2.72
2007	14.13	11.54	7.37	13.99	2.91	6.17	2.51
2008	13.70	10.13	9.21	13.30	3.72	4.18	2.75
2009	15.28	11.40	10.61	15.26	5.22	4.02	3.46
2010	15.41	10.59	10.10	15.25	5.06	8.43	6.59
2011	15.00	10.46	9.75	14.96	4.33	3.23	6.22
2012	15.53	9.90	9.07	15.98	5.19	2.48	3.48
2013	15.62	10.26	7.54	16.08	7.39	4.36	3.58
2014	15.44	11.09	10.32	16.00	7.71	4.90	3.85
2015	17.12	11.30	10.99	16.66	9.49	7.17	4.74
2016	16.24	11.96	11.44	16.91	9.83	8.37	4.25

Source: United Nations, Comtrade database through the WITS platform (2018)