Why initiatives towards LDCs
should be consolidated in the DDA

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Abstract :

On July 24, 2006, World Trade Organisation (WTO) Director-General Pascal Lamy recommended a "time-out" and the indefinite suspension of the WTO Doha Development Agenda (DDA) negotiations. At this time, the G-6 group (Australia, Brazil, India, EU, Japan and USA) was still not able to bridge their gaps on agricultural domestic support and market access, the main stumbling blocks of the Doha Round for several months. This grand bargaining has to some extent shed shadow on the supposed key issue of the current Round, namely its "development" dimension.

To shed light on development dimension of the round, we assess the impact of the "20/20/20 Lamy's compromise", considering also the pro-Least Developed Countries (LDCs) initiatives advanced during the negotiations. Since market access is still at the heart of the negotiation process, we focus only on reduction of trade barriers for goods, keeping in mind that other issues, such as services, will bring additional gains. Also, trade facilitation as well as a potential "Aid For Trade" package would smooth adjustments for developing economies, making it possible for the poorest to reap the benefits of trade liberalisation (Decreux and Fontagné, 2006).

An assessment of the gains that could be obtained from such a compromise will show that consolidating free access initiatives is key and that emerging economies would help in embarking in the scheme.

To assess the impact of these , the paper introduces all these trade liberalisation components in MIRAGE, the CGE developed by the CEPII (Decreux et Valin,2007), with a dynamic path up to 2020.

I. Introduction

On July 24, 2006, World Trade Organisation (WTO) Director-General Pascal Lamy recommended a "time-out" and the indefinite suspension of the WTO Doha Development Agenda (DDA) negotiations. At this time, the G-6 group (Australia, Brazil, India, EU, Japan and USA) was still not able to bridge their gaps on agricultural domestic support and market access, the main stumbling blocks of the Doha Round for several months. Since then, a new timeframe to resume the talks has not been set. On July 28th 2006, the WTO General Council acted the failure of current negotiations and decided to suspend the Doha Round. Nine months later, it is still not clear whether negotiators will reach an agreement or not at the cross of the major actors' expectations: the US, the G20 led by Brazil, the European Union and the G90. However, during the Davos Forum on the 24-28 of January 2007, the key players illustrated their will to rekindle the negotiations. Since then, these repeated attempts have hardly help reaching a consensus on the reciprocal concessions by the main actors in the negotiation.

During the five years of negotiations some significant advances have been done however, in particular compared to previous rounds. In agriculture, a substantial reduction of the ceiling for trade distorting subsidies in agriculture (60% to 70% reduction, maybe more, to be compared to 20% for Uruguay Round – UR); total elimination of export subsidies and equivalent measures (21% for UR); substantial reduction of farm bound tariffs, more than 50% on average, to be implemented on all tariff lines. Let's remind than the UR's deal led to almost no effective liberalisation. In industry: the elimination of tariff peaks in developed countries, in particular on textile and clothing, and reduction of their tariffs to extremely low levels (2-3%); some cuts in applied tariffs in emerging economies. In services: meaningful commitments by developed countries and emerging economies on key services sectors (e.g. telecom, financial, construction, computer and related services, distribution services). This should include the binding of the existing level of market openness and liberal cross-border trade commitments. In parallel, WTO Members were about, inter alia, to agree on improved trade rules on subsidies and on anti-dumping with an enhancement of transparency and fair treatment.

This grand bargaining has to some extent shed shadow on the supposed key issue of the current Round, namely its "development" dimension. Even if it has already been questioned in different studies (Bouet et al., 2005), a few points deserve to be clarified. For instance the impact of pro-Least Developed Countries (LDCs) initiatives and their consequences for Africa.

To shed light on this question, we assess the impact of the "20/20/20 Lamy's compromise". Since market access is still at the heart of the negotiation process, we focus only on reduction of trade barriers for goods, keeping in mind that other issues, such as services, will bring additional gains.

Also, trade facilitation as well as a potential "Aid For Trade" package would smooth adjustments for developing economies, making it possible for the poorest to reap the benefits of trade liberalisation (Decreux and Fontagné, 2006). An assessment of the gains that could be obtained from such a compromise will show that consolidating free access initiatives is key and that emerging economies would help in embarking in the scheme.

In order to shed light on this key issue, this paper introduces all these trade liberalisation components in MIRAGE, the CGE developed by the CEPII (Decreux et Valin, 2007), with a dynamic path up to 2020. The world economy growth is consistent with the GDP and population prospects provided by the World Bank and the United Nations respectively. Tariff cuts, and the introduction of sensitive products, are tackled at the 6-Digit level of the harmonised nomenclature (HS), using MAcMapHS6 (See Bouët et al., 2007).

Our first result is that this compromise, as previously defined, will lead to an increase of the world GDP by 0.19% in 2020, and to 2.91% additional global trade, relatively to the benchmark situation, without liberalisation. This is half of what free trade between WTO members would bring to the world economy in terms of GDP gains.

Secondly, considering free access (zero tariff-zero quota) for 100% of LDCs' exports, instead of 97% in the central scenario makes a difference for Sub-Saharan African countries. First, we make all the OECD countries granting these preferences and, second, major emerging countries join the move. We find that the opening of the emerging markets to 100% of their exports would alleviate half of the welfare losses potentially faced, bringing them to 135 current USD millions, a level that can be easily compensated. This is an outcome that would not be obtained whenever limiting the consolidation of free access schemes to developed economies. Therefore, besides gains associated with trade facilitation or with some "aid for trade" package, we conclude that one of the key elements to mitigate LDCs' losses would be the widely openness to their exports by emerging markets, compensating the preference erosion on Northern (and especially European) markets by creating preferential margins in new and fast-growing markets.

The remaining of the paper is organised as follows: section 2 describes the main features of the agreement studied, section 3 presents the tools and the way we implement the trade policy scenario, section 4 examines the economic impacts of our core simulations, section 5 focuses on the LDC case, section 6 investigates potential solutions for compensating LDCs' losses, section 7 concludes.

II. Overview of the main components of a possible agreement

In spite of the overall consensus on the issues to discuss, an agreement on all the modalities has still to be found. Indeed, members displayed different ranges of sensitivity to components of the deal, which led to the failure in negotiations. In agriculture, tariff dismantling is particularly sensitive for the European Union (EU) and the G10 members (e.g. Japan, Norway, Switzerland, Korea…), while the US are mostly bothered by their own commitments on internal support. For industrial products, the compromise represents a sizeable cut in bound tariffs for many emerging economies, while the effort – meaning the real cuts – are concentrated on a limited number of sectors in the North, basically the labour intensive ones, for which North America is more concerned than Europe and Japan.

The expected compromise can be described as: A Swiss formula with a coefficient 10 for developed countries and 20 for developing ones in Non Agricultural Market Access (NAMA); The G20 proposal in agriculture (a tiered formula for tariffs, a new ceiling for domestic support in the North and the phasing out of export subsidies at the 2013 horizon); A Special and Differential Treatment making LDCs exempted from any tariff cuts and asking them to just continue the binding process.

More importantly for our purpose, to enhance LDCs' integration in the global trade system, the unilateral initiatives already applied by the Triad will be adopted by other OECD countries, as well as by some emerging countries, granting free access for 97% of the products exported by LDCs. The Everything but Arms (EBA) initiative of the EU, launched in 2001, has been mimicked by Japan during the last years. Meanwhile the US has implemented the African Growth Opportunity Act (AGOA) for Africa, which includes the majority of LDCs. These initiatives might be more ambitious than the 97% contemplated here: EBA will cover all products except arms before the end of the implementation period of a possible DDA. The core discussion in this paper will focus on these clauses and their importance with regards to the gains to be reaped by LDCs from the ongoing negotiation. Does it make any difference to consolidate such unilateral initiatives at the multilateral level?

III.   Tools and scenarios

The model used here is the CEPII's computable general equilibrium (CGE) model, nicknamed MIRAGE. It is a dynamic model fitted with imperfect competition (in order to give a more realistic representation of the world economy) in the manufacture and service sectors. MIRAGE describes imperfect competition in an oligopolistic framework à la Cournot.

The demand side is modelled in each region through a representative agent. Domestic products are assumed to benefit from a specific status for consumers, making them less substitutable to foreign

products than foreign products between each other. Secondly, products originating in developing countries and in developed countries are assumed to belong to different quality ranges. This is motivated by the fact that several empirical works have shown that unit value differences are able to reveal quality differences even at the most detailed level of products classification. This is likely to have direct consequences on the transmission of liberalisation shocks since the elasticity of substitution is lower across different qualities than across products within a given quality. Hence, the competition between products of different qualities is less substantial than between products of similar quality. In the absence of systematic information suitable for the incorporation of vertical differentiation in a worldwide modelling exercise such as the one undertaken here, differentiation is modelled in an ad hoc fashion: developed countries and developing countries are assumed to produce goods belonging to two different quality ranges; substitutability is assumed to be weaker across these two quality ranges, than between products belonging to the same quality range.

As regards the supply side of the model, producers use five factors: capital, labour (skilled and unskilled), land and natural resources. The structure of value added is intended to take into account the well-documented skill-capital relative complementarity. These two factors are thus bundled separately, with a lower elasticity of substitution, while a higher substitutability is assumed between this bundle and other factors.

The production function assumes perfect complementarity between value-added and intermediate consumption. The sectoral composition of the intermediate consumption aggregate stems from a CES function. For each sector of origin, the nesting is the same as for final consumption, meaning that the sector bundle has the same structure for final and intermediate consumption.

Constant returns to scale and perfect competition are assumed to prevail in agricultural sectors. In contrast, firms are assumed to face increasing returns to scale (through a constant marginal cost and a fixed cost, expressed in output units) in industry and services. In those sectors, competition is imperfect. This modelling allows the pro-competitive effect of trade liberalisation to be captured.

Capital goods have the same composition regardless of the sector; they cannot change their sector affectation once it has been installed, which introduces a rigidity in the economy suggested by empirical evidence. Capital is accumulated every year as the results of investments in the most profitable sectors. Natural resources are considered to be perfectly immobile and may not be accumulated. Both types of labour are assumed to be perfectly mobile across sectors, whereas imperfect land mobility is modelled with a constant elasticity of transformation function. Production factors are assumed to be fully employed; accordingly, negative shocks are absorbed by changes in prices (factor rewards) rather than in quantities. All production factors are immobile internationally.

With respect to macroeconomic closure, the current balance is assumed to be exogenous (and equal to its initial value in real terms), while real exchange rates are endogenous.

The model is using the GTAP database. However, instead of relying on modelling tariff cuts at the sector level, we use a detailed database (MAcMap) at the HS6 level (5,100 products); this permits a better handling of the tariff dispersion (which matters as far as the gains to their removal will depend on such dispersion) as well as introducing sensitive products. This also allows analysis to be based on actual, applied tariffs, including preferential provisions (e.g. GSP, FTAs…). Moreover, the advantage of such a strategy is to fully take into account tariff peaks, exceptions and the possible non linearity of the applied tariff reduction formula.

This is a particularly adapted modelling strategy for our purpose, since the political economy of the negotiations calls for the introduction of exceptions. The so-called sensitive and special products, selected here on the basis of political criteria, have to be identified at the most detailled level of the harmonized nomenclature, which is the HS6 – instead of the tariff line level – as soon as an exhaustive exercise including various reporters is needed. To avoid the drastic discipline driven by the formula, countries claim for a partial or total exclusion of some products, here some HS6 headings, up to a certain percentage. Even if the arguments are diverse (food safety, extreme vulnerability of some sectors or workers, powerful lobbies), the result is the same: exceptions lead to a strong reduction in the effective liberalisation. Still, exceptions would allow the completion of the Round and could be flanked by the type of policies directed towards LDCs that we are contemplating here.

Numerous studies have shown that poor countries are expected to gain very little, and worse, that Sub-Saharan Africa may suffer net economic losses as a result of deteriorated terms of trade, reduced margin of preferences and, maybe more importantly, the lack of efforts demanded to these countries to reduce their own tariffs. We ask whether these countries can actually lose to a 20-20-20 scheme. And then, we ask to what extent a 100% free access conceded to LDCs by developed economies, but also by emerging countries, could cushion these losses.

As for the scenarios, we proceed by steps. The first two steps aim to define our reference scenario and to implement the current commitments.

In a first step, we take our 2025 baseline and introduce the enlargement of the EU. This defines our scenario 0 (S0).

The second step proceeds with what we recorded as the "current liberalisation commitments" of WTO members, to which we add Chinese accession and the disappearance of some peculiarities such as the US treatment of Cuban exports. These commitments are added on the top of S0. This new trajectory of

the world economy up to 2025, defined as our scenario 1 (S1) is the benchmark to which all other scenarios will be compared in the following.

In a third step, we define a "basic scenario", corresponding to the key features of any expected successful outcome of the negotiations. What we accordingly expect is only "variations" around these general lines, that will be addressed later on. This "basic scenario" is defined as follows.

Firstly, liberalisation only applies to WTO members; accordingly, Russia does not benefit from cuts in MFN rates. Secondly, we have to define a base rate for unbound products: we take the MFN rate inflated by 30%. Lastly, we classify countries into three groups: developed, developing, LDCs; Free access is conceded to the latter group on OECD markets, for 97% of their products[1] (the exception is the EU, where the current commitment under the EBA initiative holds).

Tariffs are cut using formulas. For the NAMA, we use a Swiss formula coefficient 10 for developed countries and 20 for developing ones. For agricultural products, we use the G20 formula with a capping at 100 % for developed countries and a capping at 150 % for developing countries.

Exemptions are introduced. The most general is that LDCs are exempted from any liberalisation. Then, a series of developing countries do not liberalise their manufacturing sectors due to a low initial binding rate (the so-called "paragraph 6" countries): Cameroon, Congo, Côte d'Ivoire, Cuba, Ghana, Kenya, Macao, Mauritius, Nigeria, Sri Lanka, Suriname, Zimbabwe. Also, Small and Vulnerable Economies are conceded zero liberalisation: Antigua and Barbuda, Barbados, Bolivia, Dominica, Dominican Republic, El Salvador, Fiji, Grenada, Guatemala, Honduras, Mauritius, Mongolia, Nicaragua, Papua New Guinea, Paraguay, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago. A final exception is that South Korea is treated as a developing country for agriculture and as a developed country for the NAMA.

In a fourth step, we address the issue of special and sensitive products, in order to examine the "variations" around the central scenario. "Sensitive products" and "special products" have to be defined for each country.

For both agricultural and manufacturing sectors, "sensitive" products are defined following a political criteria in the straight line of the one proposed by Jean et al. (2006). We make the assumption that tariffs are currently high where political sensitivity is the highest, and that governments take into account the effective impact of the formula on the applied tariffs and the price impact for domestic producers and consumers. In agriculture, sensitive products are available for all countries and face weaker liberalization than normal products. In NAMA, sensitive products are totally excluded from

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[1] The 3% of tariff lines excluded from the initiative are defined on a bilateral basis following the same political criteria than for sensitive products. See Jean and ali, 2005, for details.

liberalization but this option is restricted to developing countries. In agriculture, developing countries are entitled to have some "special" products related to food safety issues that will be excluded from liberalization too.

More precisely, to define these products we compare situations were normal rules apply to them and where specific treatments are applied. For sensitive and special products, no capping at the HS6 level is considered. As concerns special products, we exclude 10 % of the HS6 positions from liberalization giving priority to a list of positions selected on the basis of their caloric contributions. Then, sensitive products are defined as 4% of the HS headings with the highest sensitivity index. For these products, we apply half of the formula effect on bound rates. When HS6 positions entail TRQs, we apply 2/3 of the formula (mimicking an increase in the quota). For NAMA, the sensitive products of developing countries can cover 10% of their HS6 positions, up to 10% of their trade.

Accordingly we define scenario 2 (S2) as the central benchmark (S1), to which the "basic" 20-20-20 scenario is added, without considering any sensitive or special products. In scenario 3 (S3), we introduce sensitive and special products: all are treated as sensitive products. We finally apply the different treatment referred to above to special and sensitive products in scenario S4 (S4), which will be our central scenario in the following.

Accordingly, we have a series of scenarios describing the standard outcome of any successful negotiation, excluding eventual gains to be reaped as a result of the liberalisation of services (see Decreux and Fontagné, 2006 regarding the liberalisation in services): this will help to identify whether LDCs are actually losing, and how much, to such outcome.

What are the solutions if losses are observed? These countries do not liberalise, hence will miss the eventual efficiency gains associates to their own tariff cuts. A possibility is to compensate them, using an "Aid for Trade" package. This could help in particular to reap the important benefits of trade facilitation. A complementary solution, and this is the one contemplated here, is to concede to these countries a zero quota zero tariff access to developed countries markets, and eventually also to emerging markets. In the first case this will be a consolidation of existing schemes (EBA, AGOA,…); In the second case, such scheme will be extended to the buoyant emerging markets. Moreover, the question is whether 100% of the products will be concerned, or only 97%, in order to preserve some "sensitivities" in destination markets.

In a fifth step, we start playing with the latter issue. This will define our scenarios 5 and 6. In scenario 5 (S5), the consolidation of the zero tariff zero quota initiatives is limited to developed countries but extended to 100%, while major emerging markets join the effort in scenario 6 (S6).

In a sixth step, we draw a theoretic scenario of free trade that will be used as a benchmark for the comparison of our results. We accordingly define scenario 7 (S7) as a free trade between WTO members only. This is indeed a more accurate counterfactual than just setting all tariffs to 0 in the model. We keep the same cut in domestic support than in previous scenarios. In scenario 8 (S8), we add the disappearance of any domestic support in agriculture.

In a seventh step, the last two scenarios are designed to help us better understand the impacts of the outcomes contemplated here. In scenario 9 (S9), we remove any LDC clause, meaning that the zero quota zero tariff scheme is dropped. This is not a particularly realistic benchmark, since it would imply a disappearance of the EBA initiative which has been defined as a permanent one by the EU. Nevertheless, it is a useful counterfactual. In scenario 10 (S10), we remove the possibility of defining sensitive products for developed countries, in order to gauge the impact of introducing these politically necessary elements in the final agreement.

Box: The 10 scenarios simulated with the dynamic CGE (2001-2020)

Scenario 0 = Post Enlargement

Scenario 1 = Scenario 0 + "current commitments"

Scenario 2 = Scenario 1 + Basic compromise WITHOUT sensitive and special products

Scenario 3 = Scenario 1 + Basic compromise WITH sensitive products (special products treated like sensitive products).

Scenario 4 = Scenario 1 + basic compromise WITH sensitive AND special products (different treatments).

Scenario 5 = Scenario 4 + "LDC free access" enlarged to 100% of products by developed countries.

Scenario 6 = Scenario 4 + "LDC free access" enlarged to 100% of the products by developed countries AND major emerging countries.

Scenario 7 = Free trade between WTO members. Domestic Support along the lines of S4.

Scenario 8 = Free trade between WTO members. Total elimination of Domestic Support.

Scenario 9 = No special LDCs clause (no duty free/quota free).

Scenario 10 = No sensitive products for Developed countries.

End of box

Lastly, we also aim at identifying in S4 what is the respective contribution of agriculture and of the NAMA to the overall impact identified here. In order to do so, we run two additional (sub)scenarios: one in which liberalisation occurs only for agriculture (S4-bis), and the other one where liberalisation is limited to manufactured products (S4-ter). Due to general equilibrium interactions, both do not perfectly add to scenario 4, but this gives a rough ideas of the orders of magnitude.

IV.   Results of the basic 20-20-20 framework for the world economy

We start by examining the overall impact on the world economy of scenarios 2, 3 and 4 in Table 1. Remind that S2 is the basic 20-20-20 compromise without sensitive or special products. This will not

be the outcome of the negotiations, for political economy reasons. But comparing S2 with S4, which might be obtained, provides a rough measurement of the "price to be paid" to obtain an agreement (to make it politically acceptable).

With S2, one quarter (24.8%) of the potential increase in world trade in 2020 could be reaped in this Round. The welfare gain is even larger, since half (51.0%) of the potential welfare gains of free trade would be reaped with S2.

If we now compare with S4, which is affordable under the political economy constraints, only 27.8% of welfare gains are achieved. All in all, introducing the political economy constraints costs half of the gains of the 20-20-20 scheme in terms of welfare, but makes it acceptable for the negotiating parties. S3 is a bit more benefiting to the world economy, but the difference is rather negligible: hence it does not make such a difference of treating all special and sensitive products under the same scheme (S3) or to apply a different scheme based on food security for special products (S4).

Table 1: Changes in trade, production and welfare with scenarios S2 S3 and S4, as a percentage of changes with S7 (as a percentage of free trade), in 2020

	S2	S3	S4
Exports (val)	24.8	16.5	15.9
Exports (vol)	24.4	15.9	15.3
World GDP (volume)	46.5	28.9	27.0
World Welfare	51.0	31.5	27.8

Given the initial high level of tariffs in agriculture, we expect a much larger increase in world exports in percentage terms in this sector. Such outcome is observed in Table 2. Considering S4, we record a 57.73% increase in the volume of world exports in agricultural products. This is slightly less than with S3, meaning that the introduction of food security concerns does not impact so much the potential for increases in trade. Considering the same central scenario, S4, we record a 22.33 percent increase in world exports of non-agricultural products, a figure that is less affected by sensitive products than agricultural products: with S2 the increase would be only 31.21 percent. Lastly, we observe only a negligible increase in world exports in services: what we obtain here is simply the result of the macroeconomic feedback on services, a sector where no liberalisation is engaged according to our scenarios.

Table 2: Changes in trade, by sector with scenarios S2, S3, S4, S7, S8 (2020, volume, percent)

	S2	S3	S4	S7	S8
1 Agro-food	110.42	65.33	57.73	562.01	504.65
2 Industry	31.21	22.36	22.33	113.54	126.24
3 Services	1.60	1.18	1.17	0.28	5.20

Despite such large increase in agricultural trade in percentage terms, the contribution of agriculture to the overall increase in the volume of world exports remains limited to 17.8 percent, as a result of the dominance of non agricultural products in world trade flows. Comparing scenario S4-bis (agriculture only) and scenario S4-ter (NAMA only) confirms the respective contribution of Agriculture and of NAMA to overall gains (Table 3). Excluding sensitive and special products, this contribution of agriculture to the increase in world exports would be one fourth (24.9%). But the contribution of agriculture to changes in world welfare in 2020 is much larger: 63.4 percent. Accordingly, reducing distortions in agriculture largely contributes to welfare gains, while reducing trade barriers in the NAMA contributes to trade but less to welfare. Not surprisingly, introducing sensitive and special products reduces the contribution of agriculture to trade and welfare gains, since sensitive products are concentrated in this sector: the contribution to exports falls to 18.8 percent; while the contribution to welfare gains falls to 54 percent. Still, notwithstanding the pragmatic approach imposed by the political economy of trade negotiations, agriculture will represent at least one half of the expected welfare gains at the world level.

Table 3: Contribution of liberalisation in agriculture to overall gains in scenarios S2 and S4 (percent in 2020).

|	S2	S4
Exports (val)	25.8	18.8
Exports (vol)	24.9	17.8
World GDP (volume)	56.4	49.5
World Welfare	63.4	54.2

Another issue is the absolute gains obtained with MIRAGE using these scenarios. Table 4 gives the percentage changes in trade, GDP and welfare in 2020 associated with the key scenarios considered here. These figures are indeed sensitive to the set of assumptions used. Using different elasticities, for instance, would affect theses gains. We provide also results for S8, where domestic support is completely phased out. The latter scenario, highly unrealistic since the green box is phased out too, which is not an option in the negotiations, is often used as a benchmark in applied studies. The first result is the limited difference associated with a complete removal of the internal domestic support, meaning that the major distortions will be removed as a result of the completed reduction in domestic support. The second result is the 0.40 percent increase in world welfare obtained with MIRAGE, including the dynamic gains. This is much lower that the kind of figures obtained with alternative modelling frameworks: this is the result of certain peculiarities of MIRAGE (rigidities or elasticities used for instance), as well as of the database used for trade barriers which exhaustively takes into account current preferences. Lastly, our benchmark S1 is integrating all current liberalisation commitments. The same explanations apply to the limited changes in exports: 12 percent.

Table 4: Percentage deviations from S1 in 2020 (percent)

	S2	S3	S4	S7	S8
Exports (val)	2.91	1.94	1.86	11.75	11.86
Exports (vol)	2.85	1.87	1.80	11.72	12.20
World GDP (volume)	0.19	0.12	0.11	0.40	0.46
World Welfare	0.19	0.12	0.10	0.38	0.41

Lastly, the dynamics of the changes is also interesting to us from a political economy perspective. If the increase in trade is concentrated in the first periods, while the welfare gains accrue only progressively to agents, pains will be concentrated in the initial stages of the liberalisation process while gains will be reaped later on. This is the kind of outcome observed in Figure 1: the bulk of the increase in trade (and thus of the specialisation process) is taking place in the 2006-2013 period, while welfare gains progress smoothly after 2009. This raises concerns in terms of flanking policies.

Figure 1: Deviations of S4 from S1, world trade and world welfare (percent)
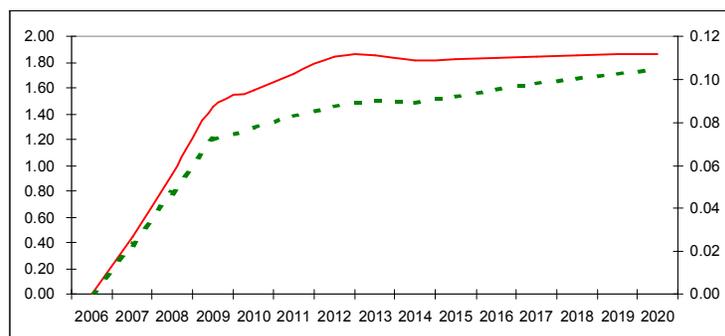
Note: welfare as dotted line, right axis.

V. Impact of the 20-20-20 for LDCs

We now address the specific issue of LDCs. A series of studies have recently challenged the gains that these countries could reap from a successful conclusion of the DDA. Due to the combination of adverse Terms of Trade (ToT) effects and of an erosion of preferences conceded in the past, these economies could actually lose. The transposition of such outcome in the arena of the negotiations is the offer made to these countries of not liberalising, plus the Trade for Aid package, plus the 97 percent initiative. We focus in what follows on the latter, since our central scenarios already integrates the absence of liberalisation of LDCs' markets. But before addressing the potential impact of an eventual 100 percent initiative enlarged to major emerging importing countries, we will shed light in this section on the expected impacts on LDCs of our central scenario and its variants.

The first evidence is that our central scenario (S4) is not particularly detrimental to LDCs taken as a whole (Figure 2). The percentage change in welfare is positive and of similar magnitude with other

large regions. Indeed, a calculation in absolute terms would concentrate the gains in the North, as a result of the differences in size between the regions, but such comparison is flawed. The introduction of special and sensitive products, whatever the scheme utilised, does not change such broad picture as far as LDCs are concerned. In the North, on the contrary, welfare gains are profoundly reduced by such introduction. Lastly, contemplating a hypothetical free trade situation (S7), welfare losses would be recorded in LDCs; however it is not the purpose of this Round to reach free trade.

Figure 2: Welfare changes (2020, percentage deviation from S1)
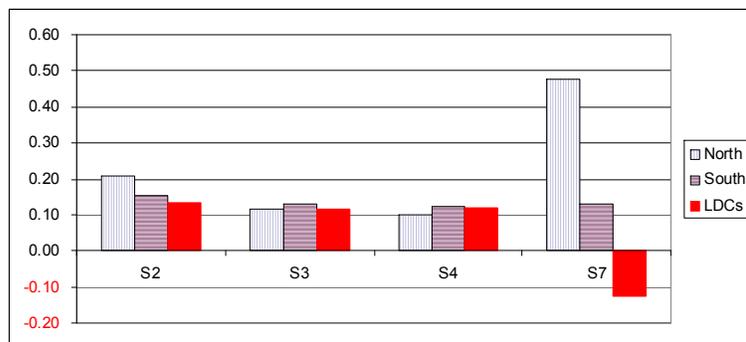
This is only the broad picture however: Within large regions, there are gainers as well as losers. We can check this uneven outcome of the DDA for individual countries or sub-regions in Table 5. The situation observed with S3 is now well documented in the literature: the EU gains a lots thanks to its own liberalisation in agriculture, the same is true for the ASEAN; Argentina and Brazil reap the benefits of their offensive interests in this sector, while the US economy is in overall terms indifferent to the conclusion of the Round. Other interesting results are the losses faced by Mexico and Canada adversely affected by the reduction in their preferential access to the US market. Lastly, Sub-Saharan African countries do lose 0.23 percent in welfare terms under S3 and 0.20 percent when the specificity of certain food products is recognised (S4). When information is available on the Social Accounting Matrix of individual countries, our diagnosis is confirmed: Uganda is losing 0.23 percent (S4) and Nigeria 0.44 percent.

How does such averse outcome occur is clear-cut, as illustrated with S3. Facing challenged positions on destination markets, SSA exports decline (-1.11%), translating into a slight decline in the volume of the GDP (-0.13%), implying a reduction in imports (-0.71%) having a negative impact on tariff revenues (-0.01% of GDP). All in all wages decline, skilled or unskilled, for the labour force employed in the agricultural sector as well as in the rest of the economy. Countries from Eastern Africa belonging to the SADC agreement seems to know a better fate mainly because they manage to export products that are still partially excluded from tariff preferences and for which tariff peaks prevail: rice and meat. However, existing SPS on animal products, not considered here, should lead us to consider these figures carefully.

Table 5: Welfare changes at the country/sub-region level (2020, percentage deviation from S1)

	S2	S3	S4	S7
ANZ	0.90	0.41	0.39	1.75
Argentina	0.16	0.10	0.07	0.15
ASEAN	0.81	0.62	0.60	1.52
Bangladesh	0.13	0.14	0.14	-1.40
Brazil	0.18	0.13	0.12	0.06
Canada	0.03	-0.04	-0.05	-0.10
Caribean	0.42	0.04	0.04	0.10
Central Am	0.62	0.54	0.55	0.51
China HK	0.11	0.14	0.14	0.11
CIS	-0.31	-0.20	-0.19	-0.90
EFTA	0.86	0.49	0.49	1.01
EU27	0.26	0.18	0.18	0.68
India	0.25	0.20	0.20	0.68
Japan	0.45	0.20	0.20	1.08
Korea Tw	0.83	0.60	0.21	1.52
Mercosur	0.31	0.27	0.26	0.33
Mexico	-0.12	-0.14	-0.16	-0.76
Nigeria	-0.44	-0.42	-0.44	-0.48
North Afr	-0.14	-0.13	-0.15	-0.78
RoW	0.02	0.05	0.07	-0.26
SACU	0.86	0.53	0.50	1.47
SADC	0.89	0.46	0.34	1.40
SSA	-0.30	-0.23	-0.20	-0.94
Sth Am	-0.16	-0.06	-0.05	-0.92
Sth Asia	0.32	0.19	0.21	0.74
Turkey	0.36	0.22	0.21	0.68
Uganda	0.08	-0.22	-0.23	-0.25
USA	0.01	-0.01	-0.01	0.05

We now ask whether a 100 percent initiative, extend or not to the major emerging markets, would alleviate such potential losses.

VI. Potential impact of the consolidation of LDCs initiatives

The scenarios to be compared are now S2 (our basic 20-20-20), S3 (introducing sensitive and special products, both with the same treatment), S4 (introducing total exclusion for special agricultural products), S5 (introducing a 100 percent initiative, instead of the 97 percent initiative in S2, taken by developed economies), and S6 (extending this 100 percent initiative to major emerging economies). We observe in Figure 3 that such kind of initiative makes a difference for SSA countries, without having any observable detrimental impact on countries offering such access. With S4, SSA welfare losses are 0.20 percent in 2020. With S5 there are limited to 0.17 percent[2]. But more importantly, with

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[2] For other LDCs, such as Bangladesh, the gains going from 97% to 100% incorporated in S5 are much more sizable. Indeed, due to a high degree of specialization in clothing, the exclusion of few tariff lines in the US

S6, they are halved (0.10%). All in all, we observe that offering a free access to 100 percent of the products exported by LDCs on large emerging markets would halve the losses to be faced by SSA countries. This is indeed not a complete reversal of the losses, but halving the latter would make it easier to compensate the rest with flanking policies such as the Aid for Trade package.

Figure 3: Welfare changes (2020, percentage deviation from S1)
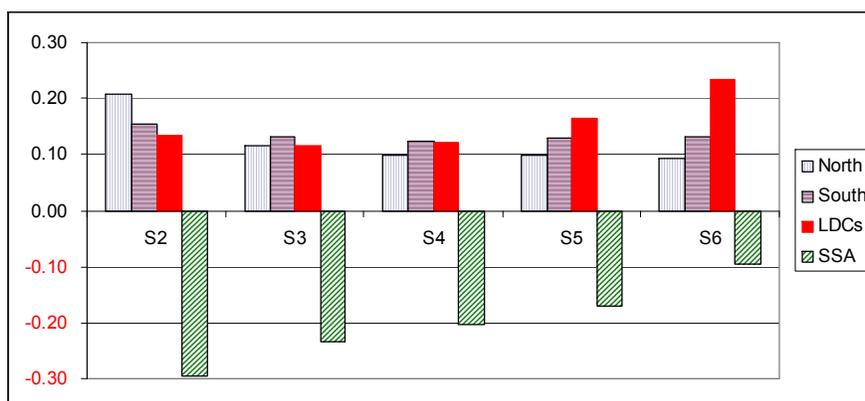
VII. Conclusion

When this paper is submitted of the conference, it is still not clear whether negotiators will reach an agreement or not at the cross of the major actors' expectations. The repeated attempts to reshuffle the negotiations have hardly helped reaching a consensus on the reciprocal concessions by the main actors in the negotiation. However, during the five years of negotiations some significant advances have been done. This grand bargaining has to some extent put the supposed key issue of the current Round, namely its "development" dimension in the shadow. Even if it has already been questioned in different studies, a few points deserve to be clarified. For instance the impact of pro-Least Developed Countries (LDCs) initiatives and their consequences for Africa.

To shed light on this question, we have assessed the impact of the "20/20/20 Lamy's compromise", focusing only on the reduction of trade barriers for goods. We have introduced all the various components of this trade liberalisation proposal in MIRAGE, with a dynamic path up to 2020. Tariff cuts, and the introduction of sensitive products, have been tackled at the 6-Digit level of the harmonised nomenclature (HS), using MAcMapHS6.

Our first result is that this compromise, as previously defined, will lead to an increase of the world GDP by 0.19% in 2020, and to 2.91% additional global trade, relatively to the benchmark situation, without liberalisation. This is half of what free trade between WTO members would bring to the world

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market for example have tremendous impact. For this country, exports jump from a mere +2.46% in S4 to a +12.83% increase in S5.

economy in terms of GDP gains. However, there are potential losses for SSA countries, if not for LDCs taken as a whole.

Accordingly, we considered free access for 100% of LDCs' exports, instead of 97% in the central scenario and asked whether it makes a difference for Sub-Saharan African countries. Our results points to the possibility of halving the losses faced by SSA countries, by simply enlarging such scheme to emerging markets. This stresses the responsibility of large emerging economies in the negotiation.

VIII. References

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IX.   Annexes

sector breakdown - country breakdown