Protectionist policies most commonly take the form of import taxes or tariffs. The negative impact of tariffs on trade flows and economic welfare has been extensively analysed in the economic literature.[1] Measures of this type have come into the spotlight due to announcements such as the introduction of import tariffs on steel and aluminium in the United States.[2] In principle, the direct

1 See for example Lileeva, A. and D. Trefler (2010) "Improved Access to Foreign Markets Raises Plant-level Productivity for Some Plants," Quarterly Journal of Economics, pp. 1051-1099.

2 On 8 March, the US Department of Commerce imposed import tariffs on steel and aluminium (of 25% and 10%, respectively), from which European Union (EU), Canadian and Mexican exports were exempted. However, at the end of May the suspension of that exemption from 1 June was announced.

Chart 1
NON-TARIFF MEASURES ADOPTED BY G20 COUNTRIES BETWEEN 2008 AND 2017

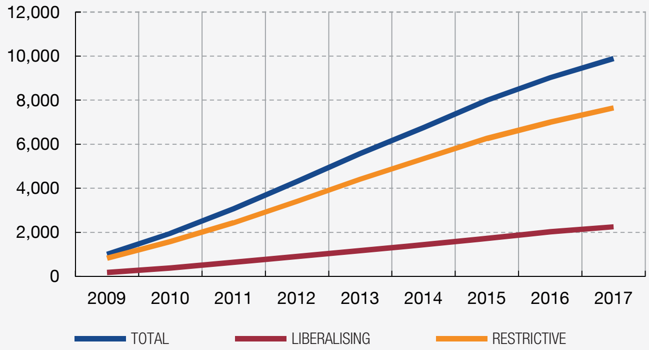



Chart 2
NEW NON-TARIFF BARRIERS (2009-2017)

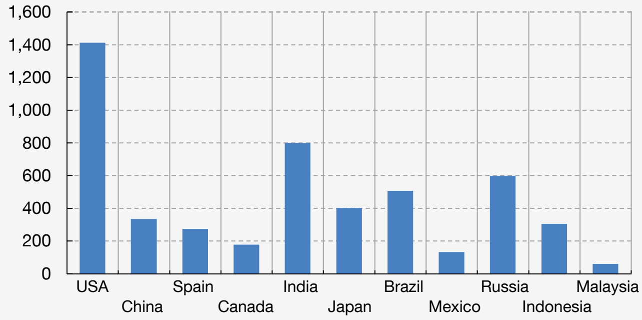



Chart 3
NUMBER OF NEW NON-TARIFF BARRIERS (2009-2017)

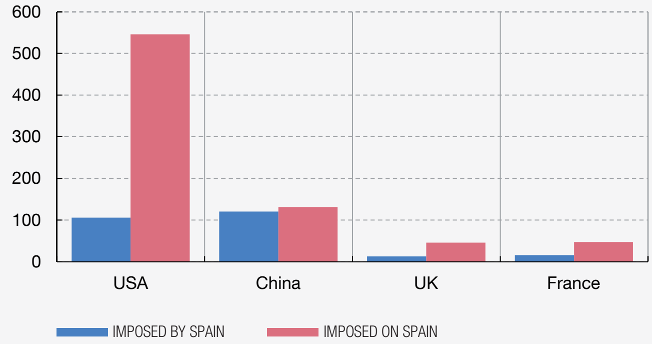



Chart 4
NON-TARIFF BARRIERS IMPOSED BY THE UNITED STATES ON SPAIN BETWEEN 2009 AND 2017

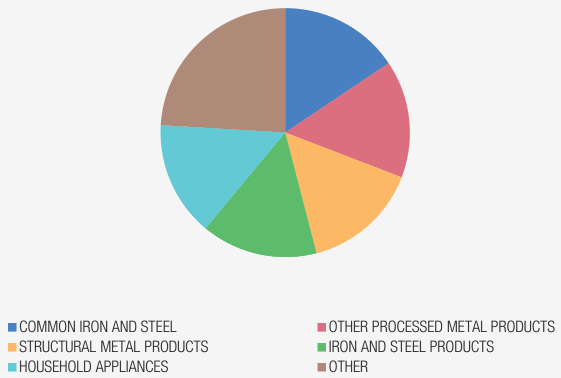



Chart 5
COUNTERFACTUAL EXPORTS WITHOUT NON-TARIFF BARRIERS

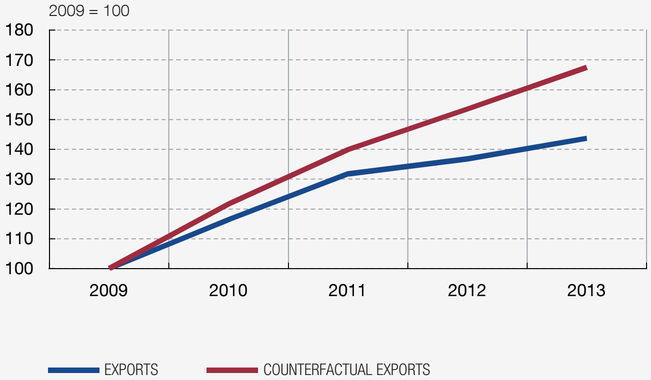
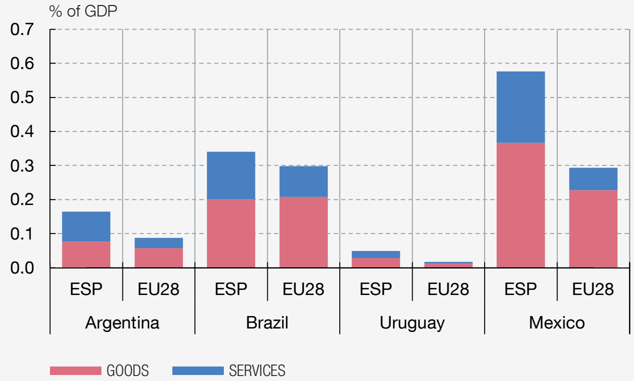



Chart 6
GOODS AND SERVICES EXPORTS TO MERCOSUR AND MEXICO (2016)




SOURCES: Banco de España, Eurostat and Global Trade Alert Project.

impact of this decision should be relatively small. That said, the consequences for world trade and economic activity may end up being severe if the measure triggers successive rounds of mutual retaliation measures between the countries involved.

This box, however, draws attention to another type of protectionist policies, of a non-tariff nature, which are less transparent and have been subject to less analysis in the economic literature. This non-tariff protectionism has been much used by various developed countries in recent times. We analyse below the recent increase in the number of non-tariff barriers in order to shed light on how this kind of protectionism may affect Spanish exports.

Non-tariff barriers may take diverse forms, including, for example, financial aid to national industries, the inclusion of conditions in public procurements which lead to effective constraints on foreign competitors or the imposition of phytosanitary requirements on imported products. Chart 1 of the chart shows the increase in the number of non-tariff protectionist measures by developed economies, adopted in some cases in an attempt to mitigate the effects of the global crisis on their national industries.[3] The United States has been particularly active in the use of measures of this type, as can be seen in Chart 2. Thus, while China and Spain have introduced around 300 non-tariff trade barriers since 2009, the United States has implemented in that time more than 1,400 new protectionist measures of this nature.

Regarding imports from Spain, since 2009 the United States has imposed a total of 546 restrictive measures (Chart 3). By contrast, sales of Spanish products to other destinations have generally faced a smaller number of new non-tariff barriers. Thus, for example, in that same period China has implemented 131 new protectionist measures affecting Spanish exports. From a sectoral standpoint, the products most strongly protected by the United States through measures of this type are basic metals (see Chart 4), which have been identified by that country as one of the areas most affected by international competition. This is illustrated by the fiscal expansion package "American Recovery and Reinvestment Act of 2009", which imposed the condition that all steel and aluminium products used under the programme had to be of US manufacture. This same requirement has been imposed again more recently in other legislation such as the "New York Buy American Act" of 2017 passed by the state of New York or the public tender for the installation of railway security systems called by the Department of Transport in 2018.

3 The source of information on non-tariff measures is the Global Trade Alert Project: https://www.globaltradealert.org/. Since it is difficult to assign them a monetary value, their measurement is based on the number of measures adopted, regardless of the value of the imports affected by each measure.

To quantify the possible impact of this kind of protectionism on Spanish exports, we used, firstly, the compilation of non-tariff measures of the *Global Trade Alert Project* for each combination of product, country and year[4] and, secondly, the microeconomic information on firm, product, country and year drawn from the Banco de España's registers of cross-border transactions between 2009 and 2013. This information can be used to compare the behaviour of a firm's exports of a given product to two different countries: one which has imposed a non-tariff constraint on imports of that product and another which has not.

The results indicate that the growth of exports to a country imposing a non-tariff barrier is 3.1 pp lower than that of exports of the same firm and the same product to other countries. This negative effect is economically significant, taking into account that the annual average growth of exports observed in the aforementioned period 2009-2013 is 6.5%.[5] Chart 5 shows how, in the absence of new non-tariff barriers, aggregate annual growth of Spanish exports in nominal terms would have been around 14%, compared with the 11% observed.[6]

It should be noted that the new generation of trade agreements negotiated recently by the European Union with its trading partners tend to reduce both non-tariff barriers to trade in goods and, in general, any barriers which constrain the movement of goods, services, persons and investment flows, without neglecting to include rules on the environment, the labour markets or intellectual property rights.[7] In this respect, by way of counterbalancing the increase in non-tariff measures in certain developed countries, the negotiations under way between the European Union and Latin American destinations such as MERCOSUR or Mexico may, if they culminate in full free trade agreements, benefit Spanish firms especially, given their experience in some sectors with high potential growth in these countries, such as public works, and their closer cultural affinity, already apparent in their greater trade presence in those areas compared with the rest of the EU (see Chart 6). To illustrate this, in the first year after Ecuador's signature in January 2017 of the European Union's free trade agreement with Colombia and Peru, Spanish exports to this country rose by 47%, compared with growth of 4.8% of the exports of Germany, France and Italy.

4 See footnote 2.

5 Note that this rate refers to the unweighted annual average growth of firm-country-product flows in nominal terms. Since it is an unweighted average, it does not coincide with the aggregate annual growth.

6 Readers interested in this analysis can find more details in Banco de España Working Paper 1814 "The costs of trade protectionism: evidence from Spanish firms and non-tariff measures".

7 For more details of agreements of this type in general and of that with Canada in particular, see the Analytical Article of the Banco de España "The EU's new-generation trade agreements: the CETA treaty".