

IS THERE A RISK OF A CREEPING RISE IN TRADE PROTECTIONISM?

ARTICLES

Is there a risk of a creeping rise in trade protectionism?

The protectionist response to the financial crisis is generally believed to have been muted, which appears surprising in the light of evidence of a counter-cyclical relationship between trade protectionism and business cycles in the pre-crisis period. Some observers have argued that structural shifts in the global trade landscape may have eliminated this counter-cyclical relationship. Others have pointed to an underestimation of protectionist activity since the financial crisis, owing to a change in the nature of contemporary trade policies, which, it is argued, have increasingly tended towards “murky” measures. This article sheds light on these issues by presenting evidence concerning recent and longer-term trends in trade protectionism, and by showing that, while the immediate response to the financial crisis was markedly protectionist, these pressures abated quickly and soon reverted to longer-term trends. However, this article also demonstrates that the relationship between trade protectionism and business cycles has continued to be counter-cyclical since the financial crisis, suggesting that the spectre of protectionism has not been banished. Thus, and especially in the light of the sluggish recovery in many advanced economies, ever more forceful efforts must be made to strengthen peer pressure, monitoring and international cooperation, in order to prevent a creeping rise in trade protectionism.

I INTRODUCTION

The sharp global economic downturn following the financial crisis and the sluggish recovery, in many advanced economies in particular, have nurtured fears that governments may resort to protectionist policies in order to support their economies by sheltering them from foreign competition. The Great Depression in the 1930s vividly illustrated that protectionist policies, especially in response to common shocks, are likely to trigger retaliation, pushing the global economy into an even deeper recession. While the creation of the General Agreement on Tariffs and Trade and its successor, the World Trade Organization (WTO), makes it unlikely that the world economy will see a repeat of the spiral into protectionism that occurred during the Great Depression, fears of a creeping rise in trade protectionism still persist, especially in the light of the sluggish recovery in many economies. Against this background, G20 leaders have repeatedly declared that they will refrain from erecting barriers to trade.¹

In order to monitor global trends in trade policy following the financial crisis, various trade watchdogs have been created. However, these bodies have, to a certain extent, produced diverging assessments regarding the extent to which trade policies have been discriminatory.² Specifically, while Global Trade Alert (GTA) comes to the conclusion that attempts to refrain from protectionism have been a “débâcle”³, the reports released by the WTO and the European Commission claim that the protectionist response to the financial crisis has been muted.⁴

1 See, for instance, *Leaders' Statement – The Pittsburgh Summit*, G20, Pittsburgh, September 2009; *Statement of G20 Finance Ministers and Central Bank Governors – The Cannes Summit*, G20, Cannes, 8 August 2011; and *Communiqué – G20 Meeting of Finance Ministers and Central Bank Governors*, G20, Washington, April 2013.

2 See Bown, C., *Import protection update: antidumping, safeguards, and temporary trade barriers through 2011*, voxeu.org column, 18 August 2012, available at <http://www.voxeu.org>

3 See Evenett, S., *Débâcle: The 11th GTA Report on Protectionism*, Global Trade Alert, Centre for Economic Policy Research, London, June 2012.

4 The following academic studies draw the same conclusions: Kee, H., Neagu, C. and Nicita, A., “Is Protectionism on the Rise? Assessing National Trade Policies during the Crisis of 2008”, *Policy Research Working Paper*, No 5274, World Bank, April 2010; and Vandenbussche, H. and Viegelaan, C., “No Protectionist Surprises: EU Antidumping Policy Before and During the Great Recession”, *Discussion Paper*, No 2011-21, Institut de Recherches Économiques et Sociales, Université catholique de Louvain, Louvain-la-Neuve, May 2011.

In the light of the firmly established empirical evidence for a counter-cyclical relationship between trade protectionism and business cycles in the pre-crisis period⁵, a muted protectionist response to the financial crisis may appear surprising. Based on historical evidence, one would have expected a pronounced protectionist response to the global recession triggered by the financial crisis, as well as to the sluggish recovery observed, in particular, in many advanced economies. Against this background, limited protectionist activity would raise the question of whether the relationship between trade protectionism and business cycles continues to be counter-cyclical, or whether recessions have ceased to give rise to calls for support against foreign competition. On the one hand, structural shifts in the global trade landscape (such as the increasing vertical fragmentation of supply chains across countries as a result of globalisation, the proliferation of trade agreements and the narrowing of policy space owing to WTO rules and regulations) may have eliminated the counter-cyclical relationship between trade protectionism and business cycles. On the other hand, it could also be the case that one-off factors, such as favourable exchange rate movements, have temporarily offset demands for protectionism. Moreover, it has also been argued that recourse to protectionism since the financial crisis has been underestimated, because trade policies nowadays consist of more subtle and difficult-to-detect state measures.⁶ In particular, it has been argued that governments have increasingly resorted to non-traditional, “murky” protectionism, which consists of state measures that exploit legitimately created policy space in international trade agreements (such as health and safety regulations), or domestic policies that are beyond the reach of these agreements. The common thread running through these two types of state measure is that they (at least potentially) discriminate against foreign producers.

The remainder of this article is structured as follows. Section 2 presents and discusses the findings of various trade watchdogs concerning recent trends in trade protectionism. Section 3 presents an in-depth analysis of the most comprehensive database of trade policy measures implemented since the financial crisis. It demonstrates that, while there was a notably protectionist response in the immediate aftermath of the financial crisis, protectionist pressures quickly abated. Section 4 puts recent trends in trade protectionism into historical perspective, and shows that trade policies have reverted to pre-crisis trends. Section 5 presents empirical evidence showing that the relationship between trade protectionism and business cycles continues to be counter-cyclical.

2 TRADE WATCHDOGS' ASSESSMENTS OF TRENDS IN PROTECTIONISM

Existing assessments of trends in trade protectionism since the financial crisis are mainly based on the following three report series: the WTO's “Report on G20 Trade Measures”⁷, the European Commission's “Report on Potentially Trade Restrictive Measures” and GTA's “GTA Report on Protectionism”.

5 See, for example: Knetter, M. and Prusa, T., “Macroeconomic factors and antidumping filings: evidence from four countries”, *Journal of International Economics*, Vol. 61, No 1, October 2003, pp. 1-17; Irwin, D., “The Rise of US Anti-dumping Activity in Historical Perspective”, *The World Economy*, Vol. 28, No 5, May 2005, pp. 651-668; and Bown, C. and Crowley, M., “Import protection, business cycles, and exchange rates: Evidence from the Great Recession”, *Journal of International Economics*, Vol. 90, No 1, May 2013, pp. 50-64.

6 See Evenett, S. and Baldwin, R. (eds.), *The collapse of global trade, murky protectionism, and the crisis: recommendations for the G20*, Centre for Economic Policy Research, London, March 2009; and Evenett, S. and Wermelinger, M., “Chapter I – A snapshot of contemporary protectionism: how important are the murkier forms of trade discrimination?”, *Rising Non-Tariff Protectionism and Crisis Recovery: A study by the Asia-Pacific Research and Training Network on Trade*, United Nations Economic and Social Commission for Asia and the Pacific, 2010, pp. 8-26.

7 The WTO publishes an additional report on trade-related developments covering trade-related measures implemented by all WTO members and observers. The key findings of this second report are consistent with those of the WTO's “Report on G20 Trade Measures”.

The WTO reports focus on traditional trade policy measures, such as tariffs adjusted in line with WTO commitments and trade defence measures (antidumping, safeguards and countervailing duties) that are consistent with WTO rules and regulations. In its latest report, the WTO states that the rate of implementation of trade-restrictive measures in G20 economies has been broadly stable since the financial crisis, and that it even slowed between May and October 2012 (the period covered by the latest report). Overall, the WTO concludes that the “world has so far avoided a serious protectionist breakout” since the financial crisis.⁸ Nevertheless, it also emphasises that the accumulation of trade-restrictive measures remains a concern, and that the ongoing weakness of the world economy might undermine policy-makers’ determination to resist trade protectionism.

The European Commission reports monitor trade-related measures implemented by the EU’s main trading partners (in the most recent report, the number of monitored trading partners has reached 31). The reports consider both traditional trade policy measures, such as tariffs and trade defence measures, and non-traditional, “murky” state measures. While acknowledging that “major recourse to trade protectionism has to a large extent been avoided” in recent years, the latest report warns that “the risk of protectionism is still present”.⁹ In particular, the report reveals that, in the eight months prior to May 2012 (the publication date of the latest report), the EU’s trading partners accelerated “the pace of introduction of new measures”.¹⁰

The GTA reports monitor a wide range of both traditional and non-traditional trade policy measures that have been implemented by more than 140 countries since the end of 2008, including tariffs, trade defence measures and technical barriers to trade, as well as state aid and bailout measures. The three most recent GTA reports conclude with rather negative assessments of trade policy since the financial crisis. They suggest that protectionist pressures are “mounting”¹¹, and that governments have not honoured their pledges to refrain from erecting trade barriers, as there has been a steady stream of newly implemented trade-restrictive measures since 2008.¹²

In summary, while all three trade watchdogs share the concern that the sluggish global economic recovery increases the risk that governments might resort to trade-restrictive policies, their assessments diverge with respect to the intensity of protectionist activity since the financial crisis.¹³ Specifically, while the WTO and Commission reports conclude that trade policy during the recovery from the financial crisis has not been particularly protectionist, the GTA report is significantly less sanguine. Unfortunately, all reports suffer from peculiarities that compromise the validity of their assessments. For example, the WTO reports focus on WTO-consistent trade policy measures and ignore “murky” protectionism. The Commission reports only consider the EU’s main trading partners but not the EU itself, despite the fact that the latter accounts for a significant share of world trade and trade policies. Finally, the GTA reports do not account for the fact that the underlying data suffer from a reporting lag bias (see box), which blurs the analysis of the intensity of protectionist pressures over time. In addition, none of the reports compare their findings concerning recent trends in protectionist policies with longer-term trends from the pre-crisis period. Against this background and using GTA data, the next section presents an in-depth analysis of trends in trade policy since the start of the financial crisis.

8 See *Report on G20 Trade Measures*, World Trade Organization, May 2012.

9 See *Ninth Report on Potentially Trade Restrictive Measures*, Directorate General for Trade, European Commission, 6 June 2012.

10 *ibid.*

11 See Evenett, S., *Trade Tensions Mount: The 10th GTA Report*, Global Trade Alert, Centre for Economic Policy Research, London, November 2011.

12 See Evenett, S., *Débâcle: The 11th GTA Report on Protectionism*, *op. cit.*; and Evenett, S., *Protectionism’s Quiet Return: GTA’s Pre-G8 Summit Report*, Global Trade Alert, Centre for Economic Policy Research, London, June 2013.

13 See Bown, C., *op. cit.*

3 GLOBAL TRADE ALERT DATA

GTA is an independent initiative that was created in 2008 in order to monitor global trade policy, and that has since established a comprehensive database on trade policy measures. For each newly implemented trade policy measure reported in its database, GTA provides information on the following: trade policy measure category; whether the measure is trade-restrictive or trade-liberalising; date of implementation; date reported in the GTA database; duration for which the measure will be in place; and countries, sectors and product lines affected. As of April 2013, the GTA database contains information on around 2,600 trade policy measures that have been implemented by more than 140 countries since 2008. The data are collected by regional GTA nodes that monitor trade policies in their region. In addition to the regional nodes, third parties are also encouraged to report the implementation of trade policy measures.¹⁴

Importantly, GTA also monitors the implementation of “murky” measures, i.e. policy measures that possibly abuse policy space granted under WTO rules, or that are beyond the latter’s reach, in order to discriminate against foreign producers. This is the key factor that makes the GTA database

Table 1 Number of trade-related measures and percentage of total measures per category in the Global Trade Alert database

Category	Number of trade-restrictive measures	Percentage of all trade-restrictive measures	Number of trade-liberalising measures	Percentage of all trade-liberalising measures
“Murky” measures				
Bailout/state aid measure	457	22.1	3	0.5
Consumption subsidy	10	0.5	3	0.5
Intellectual property protection	3	0.1	1	0.2
Investment measure	90	4.4	76	12.9
Local content requirement	45	2.2	2	0.3
Migration measure	92	4.5	52	8.8
Non-tariff barrier	171	8.3	23	3.9
Other service sector measure	24	1.2	7	1.2
Public procurement	52	2.5	2	0.3
Sanitary and phytosanitary measure	18	0.9	4	0.7
State trading enterprise	7	0.3	0	0.0
State-controlled company	27	1.3	1	0.2
Sub-national government measure	5	0.2	0	0.0
Technical barrier to trade	19	0.9	14	2.4
Trade finance	32	1.5	0	0.0
	1,052	50.9	188	31.9
Traditional measures				
Competitive devaluation	6	0.3	0	0.0
Export subsidy	63	3.0	3	0.5
Export taxes or restrictions	131	6.3	41	7.0
Import ban	49	2.4	6	1.0
Import subsidy	8	0.4	4	0.7
Quota (including tariff rate quotas)	34	1.6	11	1.9
Tariff measure	274	13.3	318	54.1
Trade defence measure	449	21.7	17	2.9
	1,014	49.0	400	68.1
Total	2,066		588	

Source: Global Trade Alert.

Notes: The data cover 143 countries from the fourth quarter of 2008 to the first quarter of 2013. The table only presents those measures for which GTA provides the date of implementation.

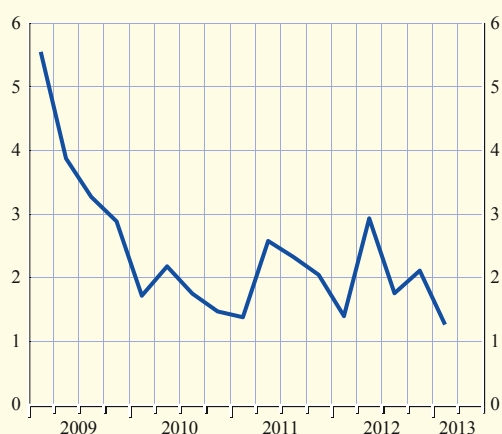
¹⁴ Note, however, that third-party reporting may lead to an overestimation of protectionist activity by countries that communicate their trade policy in a more transparent manner.

the most comprehensive source of information on trade policy measures implemented since the financial crisis. Table 1 presents the number of newly implemented trade policy measures for each category reported in the GTA database as of April 2013, and illustrates that “murky” protectionism has been a quantitatively important dimension of trade policy since the financial crisis.¹⁵

Unfortunately, a descriptive analysis of recent trends in trade protectionism using GTA data is not straightforward. As described in the box, the time series variation in the GTA data is distorted owing to reporting lags, which blur the comparison of the number of newly implemented trade-related measures over time.¹⁶ One way to address this distortion is to consider the ratio between newly implemented trade-restrictive measures and newly implemented trade-liberalising measures in each quarter (see Chart 1).¹⁷ This metric suggests that the immediate response to the financial crisis was, in fact, notably protectionist: at the height of the financial crisis, the number of newly implemented trade-restrictive measures was substantially larger than the corresponding number of trade-liberalising measures. This spike was primarily due to the widespread use of bailout and state aid measures, which accounted for 40% of all trade-restrictive measures implemented at the height of the financial crisis (about 75% of these bailout measures were implemented in advanced economies). However, protectionist activity quickly subsided after the immediate spike, and has been broadly stable since then (see Chart 1).

Regarding the distribution of protectionist trade policies across countries, the GTA data suggest that G20 economies accounted for the bulk of trade-restrictive measures implemented since the

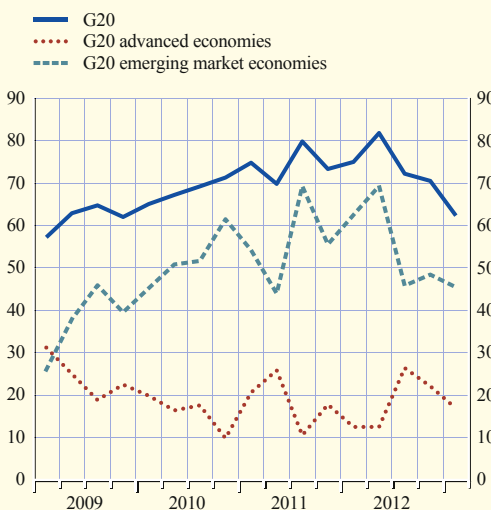
Chart 1 Ratio between newly implemented trade-restrictive measures and newly implemented trade-liberalising measures



Sources: Global Trade Alert and ECB staff calculations.

Chart 2 Proportion of total trade-restrictive measures implemented by G20 economies

(percentages)



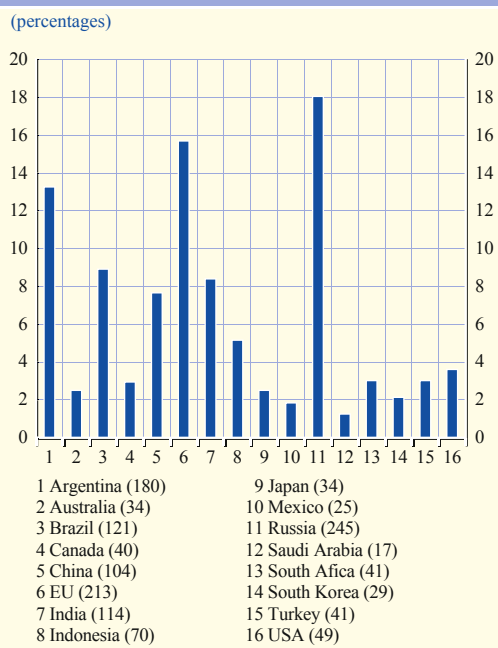
Sources: Global Trade Alert and ECB staff calculations.

¹⁵ See also Evenett, S. and Baldwin, R. (eds.), *op. cit.*; and Evenett, S. and Wermelinger, M., *op. cit.*

¹⁶ When evaluating protectionist pressures, both the trade watchdogs' reports and the academic literature (such as Knetter, M. and Prusa, T., *op. cit.* or Bown, C. and Crowley, M., *op. cit.*) typically only consider the number of newly implemented trade-restrictive measures, rather than the proportion of a country's total trade volume affected by them. This is due to missing information concerning the potentially heterogeneous impact of different trade policy measures on actual trade flows, the lack of sufficiently disaggregated trade flow data and the difficulties in identifying affected products.

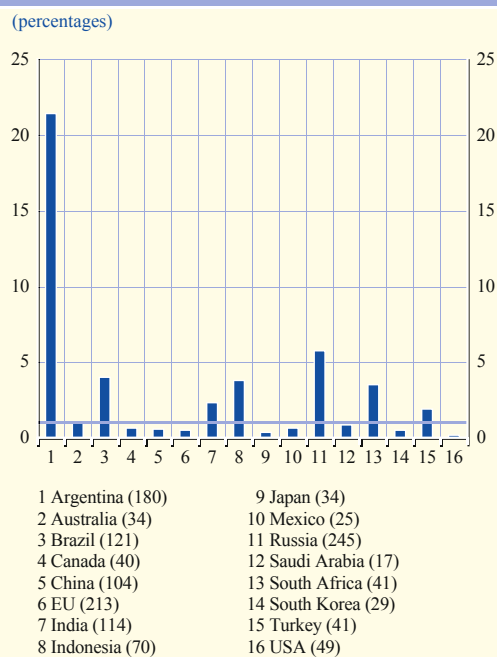
¹⁷ The number of newly implemented trade-restrictive measures includes the number of expiring trade-liberalising measures (and vice versa).

Chart 3 G20: proportion of the total number of newly implemented trade restrictive measures accounted for by individual countries



Sources: Global Trade Alert and ECB staff calculations.
 Note: The numbers in parentheses represent the number of trade restrictive measures implemented by that country since 2009.

Chart 4 G20: ratio between each country's share of newly implemented trade-restrictive measures and its share of total G20 imports



Sources: Global Trade Alert and ECB staff calculations.
 Notes: The solid horizontal line is drawn at the value of unity. The numbers in parentheses represent the number of trade restrictive measures implemented by that country since 2009.

financial crisis, ranging from 60% to 80% of all measures implemented globally (see Chart 2). Within the G20, emerging market economies (EMEs) have been responsible for the majority of the trade-restrictive measures implemented since 2009, with the first quarter of 2009 being a brief exception that largely reflects the widespread recourse to bailout and state aid measures by advanced economies, as stated above.

At the level of individual G20 countries, the EU and a few EMEs (in particular Argentina and Russia) have been among the most active in erecting trade barriers since the financial crisis (see Chart 3). However, relating a country's share of newly implemented trade-restrictive measures to its share of total G20 imports shows that only G20 EMEs stand out as having contributed disproportionately to crisis-era protectionism (see Chart 4).¹⁸ Specifically, while Argentina, Brazil, India, Indonesia, Russia, South Africa and Turkey account for 60% of all trade-restrictive measures implemented since 2009 and reported by GTA, they only account for 13% of G20 imports.¹⁹ By contrast, G20 EU countries (France, Germany, Italy and the United Kingdom), Japan and the United States only account for 22% of trade-restrictive measures implemented since 2009 and reported by GTA, while their share of G20 imports amounts to 59%.

18 The proportion of G20 imports accounted for by EU countries is calculated by adding together the proportion of imports accounted for by France, Germany, Italy and the United Kingdom.

19 Almost all trade-restrictive measures implemented by Argentina refer to non-tariff barriers, in particular trade defence measures and the introduction of reference prices for imported products. For Russia, the bulk of the trade-restrictive measures are bailout, state aid and tariff measures (the latter were implemented prior to Russia's WTO accession in August 2012).

Box

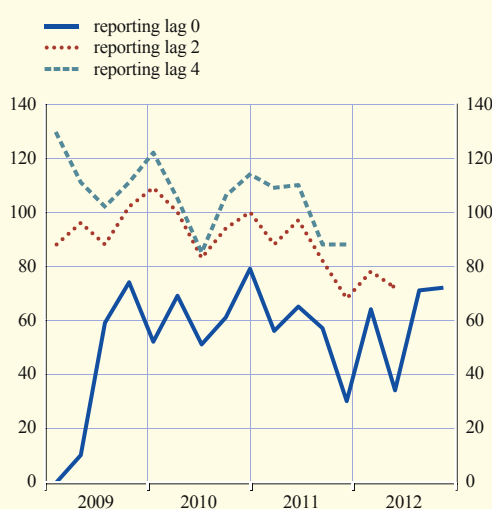
ADDRESSING REPORTING LAGS IN THE GTA DATASET

Since national governments are not required to report to GTA when they implement a trade policy measure, GTA must carry out its own data gathering. As a result, the implementation of a trade-related measure may be detected and reported by GTA with a time lag, which blurs the comparison of the number of trade policy measures that were implemented at two different points in time. For example, it is unclear whether a decline in the number of newly implemented trade-restrictive measures in the raw GTA data is due to weakening protectionist momentum, or the fact that by April 2013 the GTA staff have had far less time to detect and report trade-restrictive measures that were implemented in 2013 than to detect those that were implemented in 2009. The problem of reporting lags in the GTA data can be addressed by considering the number of newly implemented trade-restrictive measures reported by GTA up to a fixed reporting lag.

The chart plots the number of trade-restrictive measures that were implemented in period t and reported in the GTA database in period $t+h$. For example, the solid line depicts trade-restrictive measures that were detected by GTA in the same quarter in which they were implemented (i.e. at reporting lag zero, $h=0$). The dashed line reflects the number of measures that were detected by GTA no more than four quarters after they were implemented. Specifically, no trade-restrictive measures were both implemented and also reported by GTA in the first quarter of 2009, that is, with a reporting lag of zero.¹ By contrast, by the first quarter of 2010 (i.e. up to a reporting lag of four) GTA had reported approximately 125 trade-restrictive measures that were implemented in the first quarter of 2009.

¹ In the first quarter of 2009, GTA was a relatively new initiative, so it is likely that data gathered at the beginning of 2009 were incomplete. This would explain the absence of reported trade-restrictive measures at reporting lag zero for the beginning of 2009.

Number of newly implemented trade-restrictive measures at fixed reporting lags



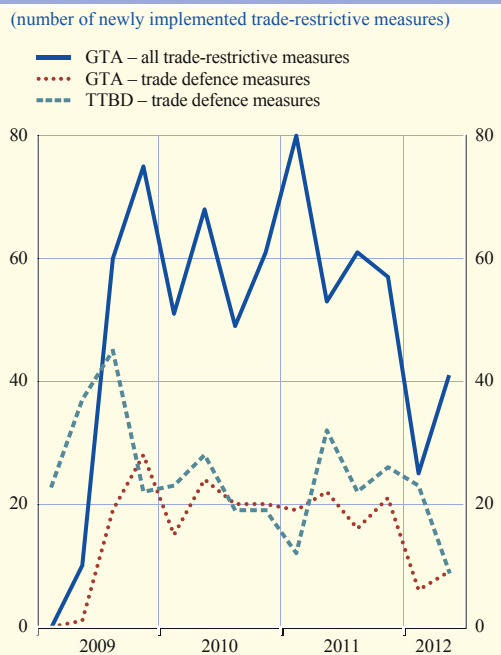
Sources: Global Trade Alert and ECB staff calculations.

4 RECENT TRENDS FROM A HISTORICAL PERSPECTIVE

Since the GTA database does not cover the period prior to 2009, it cannot be used to assess whether recent trends in trade policy are a continuation of longer-term trends, or whether they constitute a move towards more protectionist trade policies. In order to put recent and longer-term trends in trade protectionism into perspective, this section makes use of the data contained in the World Bank's Temporary Trade Barriers Database (TTBD)²⁰. The TTBD documents trade defence policies of most G20 economies, and includes records for the pre-crisis period. If trends in trade defence policy are sufficiently correlated with trends in overall trade policy, including "murky"

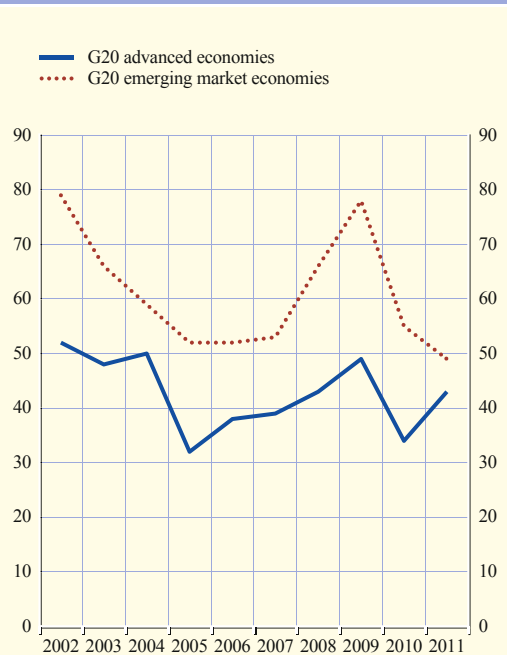
²⁰ See Bown, C., *Temporary Trade Barriers Database*, World Bank, Washington, DC, 2010, available at <http://www.worldbank.org>

Chart 5 Trade defence measures reported in the GTA database and the TTBD, and all trade-restrictive measures reported in the GTA database



Sources: Global Trade Alert and Temporary Trade Barriers Database.
 Note: Only GTA measures with a reporting lag of zero are included (see the box for more information).

Chart 6 Number of newly implemented trade defence measures in TTBD data



Source: Bown, C., Temporary Trade Barriers Database, op. cit.
 Notes: Trade defence measures comprise antidumping investigations, countervailing duties and safeguards. G20 advanced economies include Canada, EU countries, South Korea and the United States. G20 emerging market economies include Argentina, Brazil, China, India, Indonesia, Mexico, South Africa and Turkey.

measures, the TTBD may be used as a proxy for overall protectionist pressures in the pre-crisis period. Descriptive analysis suggests that the dynamics of trade defence measures reported in the TTBD data can indeed be used to draw conclusions about general trends in trade protectionism. Moreover, Chart 5 shows that there is both a strong correlation between the TTBD data and the number of newly implemented trade defence measures reported in the GTA database, and also between the dynamics of trade defence measures reported in the GTA data and the trend in newly implemented trade-restrictive measures across all categories.

A comparison of recent and longer-term trends in trade protectionism based on TTBD data suggests that the rate of implementation of trade-restrictive measures has not accelerated since the financial crisis, compared with the pre-crisis period. Following a temporary spike in 2008 and 2009, and consistent with the picture emerging from the analysis of the GTA data, the total number of temporary trade barriers implemented by G20 economies quickly fell. Importantly, the analysis of the TTBD data also suggests that protectionist activity reverted to longer-term trends in 2010 and 2011 (see Chart 6). Regarding differences in the implementation of temporary trade barriers across G20 advanced economies and G20 EMEs, the TTBD data suggest that G20 EMEs accounted for the bulk of protectionist policies over the period under review, which is again consistent with the picture portrayed by the GTA data analysed in Section 3.

5 GROWTH, COMPETITIVENESS AND TRADE PROTECTIONISM SINCE THE FINANCIAL CRISIS²¹

Empirical studies of the period prior to the financial crisis have found that governments erected more trade barriers whenever their economies experienced weaker growth and suffered losses in price competitiveness. Moreover, governments tended to impose more trade-restrictive measures vis-à-vis economies that were experiencing their own business cycle downturns.²² The limited protectionist activity during the recovery from the 2008/09 recession documented in the previous two subsections raises the question as to whether this relationship has continued to hold true over recent years, or whether structural changes have led to a breakdown of this relationship.

On the one hand, the absence of a pronounced and persistent protectionist response to the financial crisis (by contrast with the short-lived spike apparent in the GTA and TTBD data) might reflect the disappearance of this relationship, owing to structural shifts in the global trade landscape, for example.²³ On the other hand, it could be the case that the demand for protectionist trade policies has been dampened temporarily despite widespread weak growth, possibly owing to cyclical factors such as favourable exchange rate developments in hard-hit economies, fiscal stimulus packages and adequate social safety nets.

In order to analyse whether the relationship between trade protectionism, growth and competitiveness has continued to hold true since the financial crisis, this section again makes use of the GTA database of trade-related measures. As described in Section 3, the GTA data cover a wide array of trade policies beyond traditional tariff and trade defence measures, in particular “murky” protectionist policies. The sample used covers the period from the first quarter of 2009 to the second quarter of 2012 and includes trade-restrictive measures implemented by G20 economies.²⁴ The empirical model relates the number of trade-restrictive measures implemented by each G20 economy against a trading partner to the corresponding real bilateral exchange rate, real domestic GDP growth and the trading partner’s real GDP growth.^{25,26}

The results for the baseline specification are presented in the first column of Table 2. The estimated elasticities suggest that the relationship between growth, competitiveness and protectionist activity remained valid during the period under review. A one percentage point appreciation (increase) in the real bilateral exchange rate was typically associated with a 1.0% increase in the number of newly implemented trade-restrictive measures, while a one percentage point reduction in GDP growth of the implementing G20 country led to a 4.4% increase in the number of newly implemented trade-restrictive measures. At the same time, the trade policies of G20 economies were unrelated to their trading partners’ GDP growth. This result contrasts with the evidence for the period prior to the financial crisis, according to which governments erected more trade barriers

21 This section is based on Georgiadis, G. and Gräß, J., “Growth, competitiveness and trade protectionism during the Great Recession”, mimeo.

22 See Knetter, M. and Prusa, T., op. cit.; Irwin, D., op. cit.; and Bown, C. and Crowley, M., op. cit.

23 See also: Bown, C. and Crowley, M., “Emerging Economies, Trade Policy, and Macroeconomic Shocks”, *Working Paper Series*, No 2012-18, Federal Reserve Bank of Chicago, Chicago, January 2013; Gawande, K., Hoekman, B. and Cui, Y., “Determinants of Trade Policy Responses to the 2008 Financial Crisis”, *Policy Research Working Paper*, No 5862, World Bank, October 2011; and Dadush, U., Shimelse, S. and Odell, R., “Is Protectionism Dying?”, *The Carnegie Papers*, Carnegie Endowment for International Peace, May 2011.

24 Measures implemented after the second quarter of 2012 are removed in order to limit the possible impact on the empirical results of reporting lags in the GTA data.

25 Owing to the count nature of the dependent variable, a negative binomial regression model is estimated. For a similar approach, see Knetter, M. and Prusa, T., op. cit.; Bown, C. and Crowley, M., “Import protection, business cycles, and exchange rates: Evidence from the Great Recession”, op. cit.; and Bown, C. and Crowley, M., “Emerging Economies, Trade Policy, and Macroeconomic Shocks”, op. cit.

26 Period-specific dummy variables are used to control for distortions arising from reporting lags in the time series variation of the GTA data.

Table 2 Estimated elasticities of newly implemented trade-restrictive measures with respect to selected business cycle variables

(percentages)

	G20 versus G20 and non-G20	G20 advanced economies versus G20 and non-G20	G20 emerging market economies versus G20 and non-G20	G20 versus G20	G20 versus non-G20
Real bilateral exchange rate	1.0%***	1.3%***	0.8%***	0.7%***	1.2%***
GDP growth of implementing economy	-4.4%***	-11.3%***	-3.1%***	-4.7%***	-4.4%***
GDP growth of affected economy	0.0%	-0.4%	0.1%	-0.5%	0.2%

Sources: Global Trade Alert and ECB calculations.
 Note: *, ** and *** indicate that the level of significance of the corresponding elasticities are 1%, 5% and 10% respectively.

against economies experiencing a decline in growth.²⁷ This change in policy may partly explain the limited recourse to trade protectionism since 2008/09. Finally, the results suggest that the documented relationship between trade protectionism, growth and competitiveness also applies to non-traditional, “murky” trade policies that go beyond traditional tariff and trade defence measures, at least during the period under review.^{28, 29}

Refinements to the baseline specification shed light on the question of whether trade policy responses to growth and competitiveness dynamics since the financial crisis have differed across implementing and affected country groups. The findings for the samples that are split by implementing country group suggest that the relationship between trade protectionism, growth and competitiveness has continued to hold true during the recovery from the 2008/09 recession, both for G20 advanced economies and G20 EMEs (see the second and third columns of Table 2). However, trade policies of G20 advanced economies have responded significantly more strongly to the domestic economy than those of G20 EMEs. In G20 advanced economies, a one percentage point appreciation (increase) in the real bilateral exchange rate was typically associated with a 1.3% increase in the number of newly implemented trade-restrictive measures, compared with a more modest increase of 0.8% in G20 EMEs. The same can be seen in the response to a one percentage point reduction in the GDP growth of the implementing country. For G20 advanced economies, this led to an 11.3% increase in the number of newly implemented trade-restrictive measures, while for G20 EMEs it only led to a 3.1% increase.^{30, 31}

Regarding differences in G20 economies’ trade policies across affected trading partners, refinements to the baseline specification suggest that the relationship between trade protectionism, growth and competitiveness has continued to hold true during the recovery from the 2008/09 recession, regardless of whether or not the affected trading partner is a G20 economy (see the fourth and fifth columns of Table 2). Quantitative differences in the elasticities imply,

27 See Crowley, M., “Cyclical Dumping and US Antidumping Protection: 1980-2001”, *Working Paper Series*, No 2007-21, Federal Reserve Bank of Chicago, Chicago, January 2011; and Bown, C. and Crowley, M., “Import protection, business cycles, and exchange rates: Evidence from the Great Recession”, op. cit.

28 Sensitivity results suggest that the relationship holds true even when changes are made to the dependent variable used, in particular: (i) restricting the dependent variable to trade defence measures only; (ii) excluding trade defence measures; and (iii) replacing the number of newly implemented trade-restrictive measures with the difference between the number of trade-restrictive and trade-liberalising measures implemented in each quarter.

29 For both the real bilateral exchange rate and domestic GDP growth, these elasticities are quantitatively similar to estimates for the pre-crisis period in the academic literature (see, for example, Knetter, M. and Prusa, T., op. cit.; and Bown, C. and Crowley, M., “Import protection, business cycles, and exchange rates: Evidence from the Great Recession”, op. cit.).

30 The differences are statistically significant.

31 It should be noted that this result is consistent with the findings in Section 3. While trade policies of G20 advanced economies were more sensitive to the business cycle, G20 EMEs implemented more trade-restrictive measures overall.

however, that G20 trade policies were less responsive to competitiveness dynamics when implementing trade-restrictive measures against other G20 economies than against non-G20 economies. In response to a one percentage point appreciation in the real bilateral exchange rate, there was a 0.7% increase in the number of trade-restrictive measures implemented by G20 economies against other G20 economies. By contrast, the same loss in competitiveness resulted in a 1.2% increase in the number of newly implemented trade-restrictive measures vis-à-vis non-G20 economies.³²

6 CONCLUSION

The Great Depression in the 1930s demonstrated that a sharp and widespread economic downturn may lead to an extensive protectionist policy response. Moreover, these protectionist policies are widely believed to have triggered retaliatory action, which further deepened the economic recession. Against this background, as early as 2008 G20 leaders expressed their concern about countries resorting to trade protectionism and appealed for restraint. An analysis of trade policies implemented since 2009, based on the comprehensive GTA database (which includes information on “murky” protectionism in addition to traditional trade policies), suggests that the initial response to the financial crisis was markedly protectionist. However, the move towards protectionism quickly abated after the peak of the financial crisis, and a comparison of short and longer-term trends in trade protectionism based on TTBD data suggests that protectionist activity has, in fact, reverted to its longer-term trend. Moreover, the G20 accounts for a large proportion of newly implemented trade-restrictive measures, and a few G20 EMEs in particular account for a disproportionately large number of trade-restrictive policies. Taken together, these findings suggest that the global economy has avoided a protectionist spiral despite the sluggish economic recovery and high levels of unemployment, in particular in many advanced economies.

However, the finding of moderate protectionist activity during the recovery from the 2008/09 recession does not imply that trade policy is unrelated to the business cycle. In fact, the empirical evidence presented in this article shows that the spectre of protectionism has not been banished. Similarly to the period prior to the financial crisis, governments have continued to erect more trade barriers whenever their economies experienced weaker growth and suffered losses in competitiveness. Nevertheless, the empirical evidence is encouraging, as it suggests that international cooperation at the level of the G20 may have succeeded in limiting protectionist trade policies among its members. This may have been facilitated by the fact that there was a common will to address the downturn with stimulus packages. Unfortunately, the longer the two-speed recovery from the 2008/09 recession persists, with G20 EMEs returning to pre-crisis growth trajectories and advanced economies lagging behind, the more difficult it may become to maintain the cooperative spirit for limiting protectionism within the G20. Thus, ever more forceful efforts must be made by all relevant international institutions and bodies to strengthen peer pressure, monitoring and international cooperation.

32 The difference is statistically significant.