Boxes

1 Determinants of the slowdown in global trade: what is the new normal?

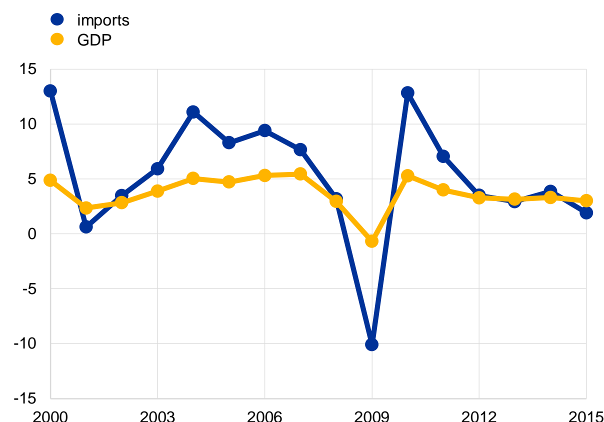
Global trade has been exceptionally weak over the past five years. Annual world import growth has been below its long-run average since mid-2011, the longest period of below-trend growth for half a century. Prior to the Great Recession, global trade grew on average roughly twice as fast as global output; since 2012 trade has barely matched the growth rates of world GDP (see Chart A). As a result, the global imports-to-GDP ratio has discontinued its strong upward trend and largely stagnated in the past five years (see Chart B). The observed decline in the gross income elasticity of trade – defined as the average growth rate of world imports divided by the average growth rate of world GDP – raises the question whether the trade weakness represents a temporary deviation from trend or a longer-lasting phenomenon reflecting more fundamental structural changes. The question has been a prominent area of recent research[9] and is highly relevant for central banks seeking to understand the role of external demand and international linkages in shaping the outlook for domestic activity, potential output and inflation. A recent report by experts of the European System of Central Banks (ESCB) finds that the weakness in world trade relative to global GDP is likely to persist, being mainly driven by two developments.[10]

[9] See, for instance, Hoekman, B., "The Global Trade Slowdown: A New Normal?", VoxEU.org eBook, CEPR Press and EUI, London, 2015; ECB, "Understanding the weakness in world trade", Economic Bulletin, Issue 3, 2015; Borin, A. and Mancini, M., "Follow the value added: bilateral gross export accounting", *Working Paper*, No 1026, Banca d'Italia, 2015.

[10] IRC Trade Task Force, "Understanding the weakness in global trade: what is the new normal?", *Occasional Paper Series*, No 178, ECB, September 2016. In the report, global GDP is aggregated at market exchange rate weights, whereas in this box global GDP is aggregated at purchasing power parity (PPP) weights to align the results more closely with the Eurosystem staff projections of world GDP.

Chart A

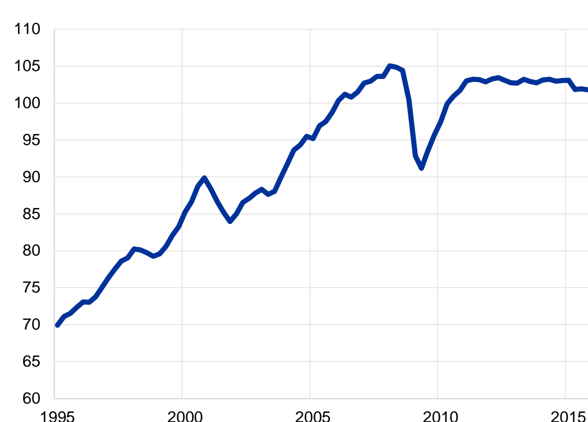
Global imports and GDP growth



Source: National sources and ECB staff calculations.
Notes: Imports of goods and services. Global GDP is aggregated with PPP weights.

Chart B

Ratio of global imports to GDP



Source: National sources and ECB staff calculations.
Notes: Global GDP is aggregated with PPP weights. The latest observation is for the fourth quarter of 2015.

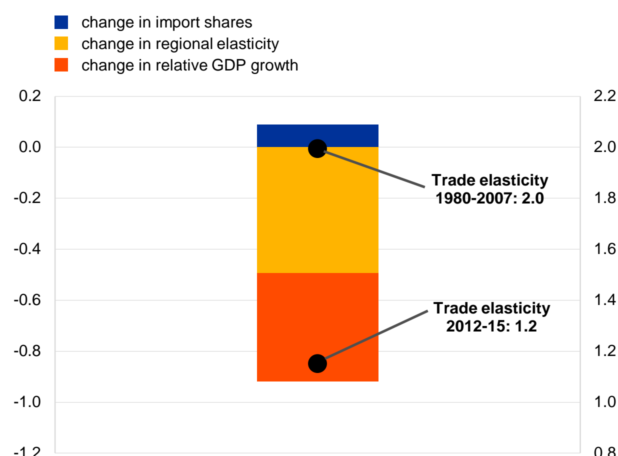
First, compositional effects dampen the global income elasticity of trade. Shifts in the global trade elasticity can reflect both changes in individual country elasticities and the change in the relative weights of each country within the global aggregate. Thus, in addition to fluctuations in elasticities at the national level, changes in the global elasticity also reflect shifts in import shares and relative growth across countries with different trade intensities. In particular, the increasing importance of emerging economies, whose growth is typically less trade-intensive, has implications for the global trade elasticity.[11] The shift in trade and GDP growth from advanced economies towards emerging market economies implies a weaker relationship between trade and economic activity at the global level. This change in the geographical composition can explain about half of the decline in the global elasticity of trade between the periods 1980-2007 and 2012-15 (see Chart C). To a lesser extent, demand composition effects have also contributed to the global trade slowdown. As import-intensive GDP components – such as investment – have weakened relative to other demand components, import growth has also moderated.[12]

[11] The decomposition is based on Slopek, U., “Why has the Income Elasticity of Global Trade Declined?”, *mimeo*, Deutsche Bundesbank, 2015.

[12] See also Bussière, M., Callegari, G., Ghironi, F., Sestieri, G. and Yamano, N., “Estimating Trade Elasticities: Demand Composition and the Trade Collapse of 2008-2009”, *American Economic Journal: Macroeconomics*, Vol. 5, No 3, 2013, pp. 118-151.

Chart C
Contributions to changes in global trade elasticities: 1980-2007 versus 2012-15

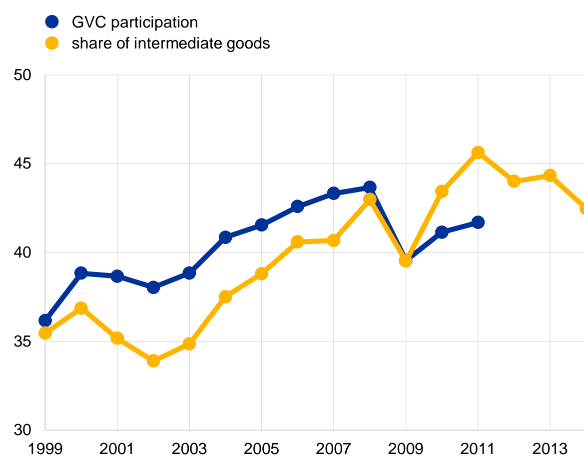
(left-hand scale: contributions to changes in trade elasticity; right-hand scale: global trade elasticity)



Source: IRC Trade Task Force (2016) and Slopek (2015).
Notes: Analysis based on aggregates of 24 advanced and 18 emerging market economies. The blue and orange shaded areas represent the contribution of the changing geographical composition in trade and activity to the decline in the trade elasticity. The yellow area represents the decline in the elasticity that is due to a decrease of the elasticity at the regional level.

Chart D
Global value chain (GVC) participation versus share of intermediate goods in total goods imports

(index)



Source: Organisation for Economic Co-operation and Development (OECD), World Input-Output Database (WIOD) and ECB staff calculations.
Notes: Both measures exclude energy-related trade. The intermediate share is mean-variance adjusted to that of the GVC participation measure. The GVC measure is based on Borin and Mancini (2015).

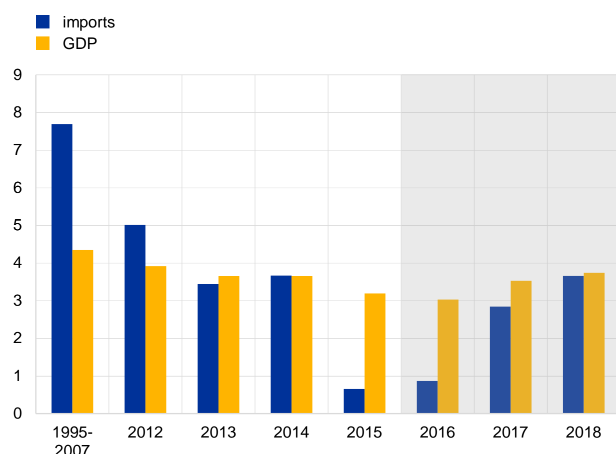
Second, several developments have lowered trade elasticities at the country level. Various structural factors that boosted trade growth in the past, including falling transportation costs and the removal of trade barriers, appear to have largely run their course. Another related factor is the moderation in the expansion of global value chains (GVCs). The growing fragmentation of production processes across international borders had significantly supported gross trade, particularly in the 1990s and early 2000s when intermediate components were increasingly shipped multiple times between economies along their production chains. It appears that the sharp rise in GVCs has stalled and possibly even reversed after 2011 (see Chart D). Anecdotal evidence suggests that increasing protectionist measures such as local content requirements induce firms to increasingly source and produce in their export markets, thereby substituting for earlier trade flows.[13] Furthermore, non-linearities in the link between financial sector development and trade openness may also have contributed to the slowdown in global trade growth. Substantial financial deepening in the last three decades in many countries was associated with increasing trade openness. However, as financial sectors have matured, the positive impact of further financial deepening on trade has weakened. Future support from financial factors to global trade growth is therefore likely to be somewhat limited.

[13] See also Box 4 in this issue of the Economic Bulletin.

Chart E

Global (excluding euro area) imports and GDP growth

(annual percentage changes)



Source: National sources and ECB staff calculations.
Notes: Imports of goods and services. GDP is aggregated with PPP weights. Years 2016-18 (shaded area) reflect the most recent ECB staff projections.

Looking ahead, the structural factors seem unlikely to reverse over the medium term. The gradual shift of activity towards emerging market economies is widely anticipated to persist. Moreover, the structural developments that boosted trade in the past – falling transportation costs, trade liberalisation, expanding GVCs and financial deepening – are not expected to support trade to the same extent over the medium term.

As such, the "new normal" for the trade elasticity over the medium term is likely to be similar to the weak level observed over recent years on average. Specifically, for the world excluding the euro area, the elasticity fell from around 1.8 over the period 1995-2007 (i.e. before the crisis) to 0.9 over the period 2012-15. Part of the weakness in the recent period is due to large adverse shocks to a small number of countries, particularly Russia and Brazil, in 2015. These have pushed global trade growth significantly below the rate of GDP growth (see Chart E). As these shocks unwind, global trade growth is expected to gradually rise to levels consistent with global GDP, bringing the global trade-income elasticity (excluding the euro area) back to the "new normal" of a value around unity.