



# CPB Memo

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**Subject:** Methodological revision of World Trade Monitor

## 1 Methodological revision of the WTM

With the October data release of the CPB's World Trade Monitor, the revision of the methodology applied in the WTM for compiling time series of international trade has been completed.<sup>1</sup> The main reason for the revision is the availability of data on volume and price developments in several emerging economies. With changes in data sources, we have improved the quality of the monitor. In addition, a few methodological changes have been implemented, most importantly the dismissal of proxies for several African countries and the reliance on country data instead.

In August 2015 (June data release), a first revision of the WTM has been reported, in which the data sources for countries in Latin America have been changed. A second revision was announced in October (August data release), which not only brought additional changes in data sources, but also changes in the composition of country aggregates. The current final changes relate to data sources and country-level computations, in particular in Asia, Central and Eastern Europe, and Africa and the Middle-East. For Africa and the Middle-East, we now fully rely on country data instead of regional approximations, for a slightly smaller number of representative countries.

As a result of the revisions, the WTM now relies less than before on data from the World Bank and more on data from the OECD, the IMF, and national sources. IMF data and data from national sources are accessed through the commercial data provider Thomson Reuter Datastream. New sources relate primarily to the price-volume split of trade value series for emerging economies. To an important extent, the WTM previously relied on the World Bank's Global Economic Monitor for this. Since very recently this is no longer possible as trade price series and trade volume series are no

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<sup>1</sup> The monitor for Industrial Production has not been revised.

longer part of Global Economic Monitor data set. Table 1 provides a summary of the data sources currently used for the compilation of time series of international trade.<sup>2</sup>

**Table 1 Data sources for international trade**

Eurostat
Hamburg Institute of International Economics
International Monetary Fund International Financial Statistics
Organisation for Economic Cooperation and Development
Thomson Reuter Datastream
United Nations Economic Commission for Europe statistical database
World Bank Global Economic Monitor
Bank of Japan
South African Reserve Bank
Statistics Norway

**Table 2 Countries covered in international trade data**

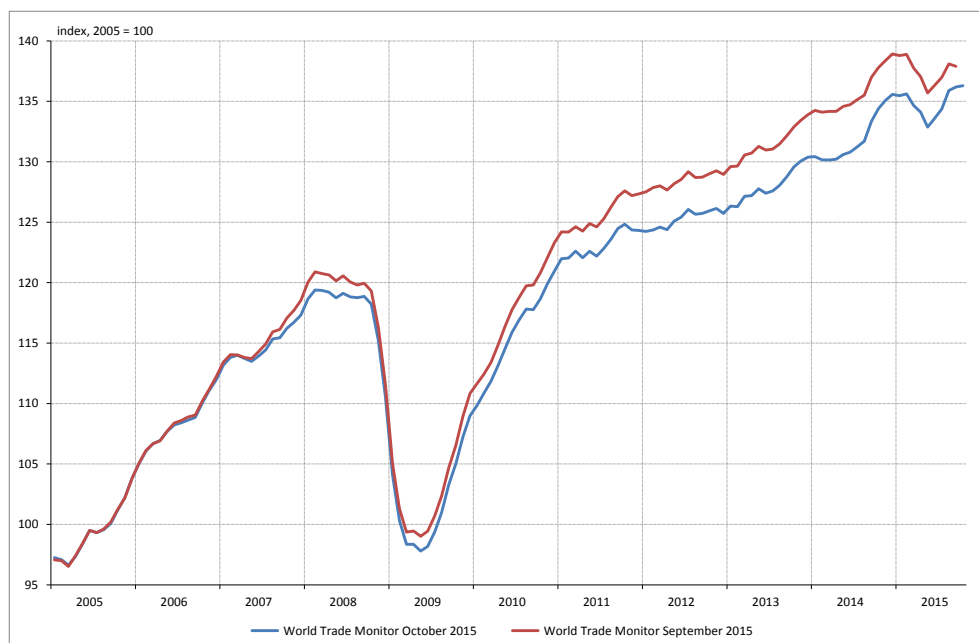
ADVANCED ECONOMIES	EMERGING ECONOMIES			
	Central and Eastern Europe	Asia excluding Japan	Latin America	Africa and Middle-East
Australia	Belarus	China	Argentina	Algeria
Austria	Bulgaria	Hong Kong	Bolivia	Egypt
Belgium	Croatia	India	Brazil	Iran
Canada	Czech Republic	Indonesia	Chile	Iraq
Cyprus	Hungary	Korea, Republic of	Colombia	Israel
Denmark	Kazakhstan	Malaysia	Costa Rica	Kenya
Estonia	Latvia	Philippines	Dominican Republic	Kuwait
Finland	Lithuania	Singapore	Ecuador	Morocco
France	Macedonia	Taiwan	Guatemala	Oman
Germany	Poland	Thailand	Mexico	Qatar
Greece	Romania	Viet Nam	Paraguay	Saudi Arabia
Iceland	Russian Federation		Peru	South Africa
Ireland	Turkey		Uruguay	Tanzania
Italy	Ukraine			United Arab Emirates
Japan				Zambia
Luxembourg				
Malta				
Netherlands				
New Zealand				
Norway				
Portugal				
Slovakia				
Slovenia				
Spain				
Sweden				
Switzerland				
United Kingdom				
United States				

<sup>2</sup> Detailed by-country information on the use of particular time series and their transformation will be made available early 2016.

The second change concerns country coverage and the geographical composition of country aggregates. A few emerging countries with little weight in regional outcomes are no longer covered. On the other hand, a few countries have been added to the region Africa and Middle-East. Importantly, the use of proxies for this region has been dispensed and replaced with available country data. Table 2 lists the countries currently covered in the trade data.

The revision has different implications for trade values, trade volumes, and trade prices. Trade values have changed very little, with the only exception for the region Africa and Middle East where the improved data sources point at a somewhat stronger value of trade in recent years. More importantly, the revised monitor reveals a different split of values into volumes and prices. Figure 1 shows that the volume of trade, starting at 2005 (index=100), is somewhat lower in the revised monitor. In ten years time, trade volume has grown with 36% in the revised monitor instead of 39% in the previous monitor. Figure 2 shows that the pattern of monthly growth rates, measured in terms of the momentum, is quite similar before and after revision. The absolute change in momentum is about 0,1% on average, with a maximum of 0.2% in the period 2010-2014. The momentum in 2015 has been revised downwards partly due to the methodological revision and partly due to actualised statistics.

**Figure 1** World merchandise trade volume, level (2005=100), three months moving average



**Figure 2** World merchandise trade volume, growth, three months moving average

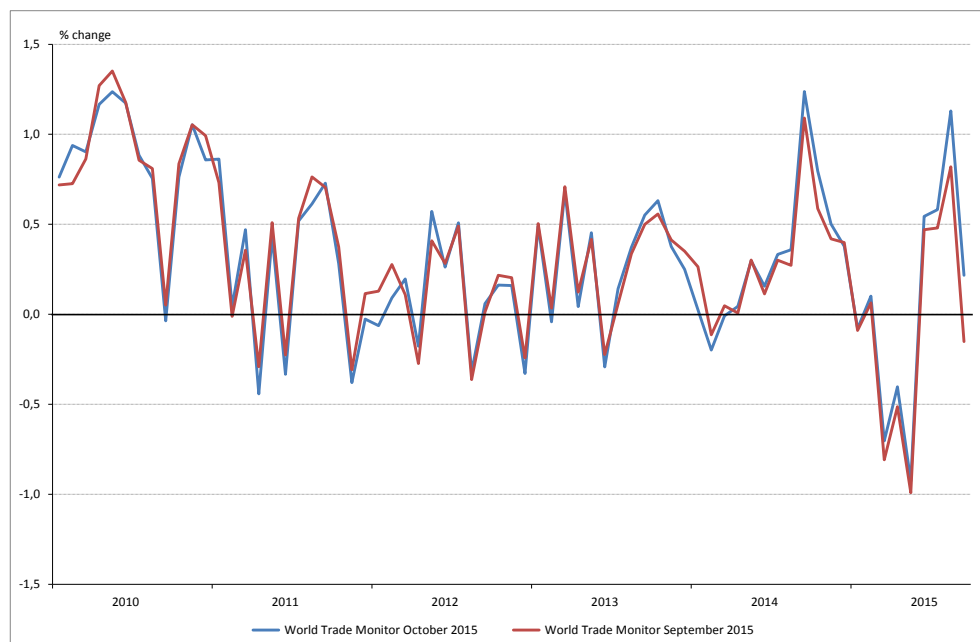


Table 3 provides a more detailed picture. It shows differences between the current (fully revised) monitor and the previous (partly revised) monitor. The table confirms that the revision has limited impact on world trade volume. Momentum for September has been revised upward, which is partly due to a regular update and partly to the changes in methodology. For example, the monitor for advanced economies has been not been revised, but total trade growth is revised upwards. For emerging economies, the methodological change implies a more optimistic view on the volume of trade at lower prices.

The changes in two regions of emerging economies stand out. The changes in Central and Eastern Europe are nearly entirely due to a drastic change in the method applied for the Russian Federation. Russian trade values have not changed at all, but whereas volumes were formerly computed from values and price series compiled by the World Bank, prices are now computed from values and volumes provided by the OECD, which yields substantially different outcomes. However, given that the share of trade by Central and Eastern Europe is 6% of total trade (measured by imports), a change in trade growth of 1% affects world trade by less than 0,1%. Something similar applies to region Africa and Middle-East. The volume series for that region have changed substantially (because proxies and imputations for price indices have been replaced with simple computations based on national data), but global trade volumes are affected little.

**Table 3 International trade – difference in growth rates between October and September data release**

	year on year			quarter on quarter			momentum	month on month
	2012	2013	2014	2015q1	2015q2	2015q3	2015m09	2015m09
Volumes (s.a.)								
World trade	-0,5	-0,2	-0,1	0,2	0,2	0,8	0,8	0,3
World imports	-0,5	-0,1	-0,4	0,2	0,0	0,7	0,7	0,0
Advanced economies	0,0	-0,1	0,1	0,0	0,1	-0,1	-0,1	-0,4
Emerging economies	-0,7	0,4	-0,9	0,0	-0,1	1,8	1,8	0,3
World exports	-0,5	-0,3	0,1	0,1	0,5	0,9	0,9	0,5
Advanced economies	0,0	-0,1	0,1	0,0	0,0	-0,1	-0,1	-0,3
Emerging economies	-1,1	-0,4	0,2	0,2	1,0	2,0	2,0	1,4
Prices (s.a.)								
World trade	0,7	0,0	0,1	-0,2	-0,4	-0,4	-0,4	-0,5
World imports	0,3	-0,1	0,2	-0,2	-0,1	-0,7	-0,7	-0,4
Advanced economies	0,0	0,0	0,0	0,0	0,0	0,2	0,2	0,6
Emerging economies	0,7	-0,5	0,5	-0,1	-0,3	-1,9	-1,9	-1,7
World exports	1,0	0,2	0,0	-0,3	-0,6	-0,1	-0,1	-0,7
Advanced economies	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,3
Emerging economies	2,1	0,4	0,0	-0,5	-1,4	-0,4	-0,4	-1,7