ING International Trade Study

Developments in global trade: from 1997 to 2017







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- Step 3. Or: scan the picture on the next page to see what Mark Cliffe and Fabienne Fortanier have to say about international trade.

Introduction

International trade is what makes the world go round. But while international trade has been growing for decades, even faster than production, recent years have shown that international trade is also vulnerable. The financial and economic crisis that started in 2008 resulted in a deep plunge in international trade, from which the world economy has only recently recovered. And turmoil remains. While the crisis rumbles on in Europe, the centre of gravity of world trade is shifting to Asia.

The ING International Trade Study (ITS) aims to help you make sense of these developments, by providing you with detailed knowledge on the markets and products of your interest. This report documents the trade developments over the past years and the ING forecasts (2012-2017) for future international trade patterns and business opportunities. These forecasts are derived from a model developed by the ING Economics Department and from the in-depth knowledge of ING-economists around the world.

This main report is complemented by over 70 different country and product reports that provide details on the

growth markets in each country and product.

But this report is only the beginning. We invite you to join us in an ongoing dialogue: please share your views and questions with us, so that in the future we can present you even more relevant information!

Mark Cliffe
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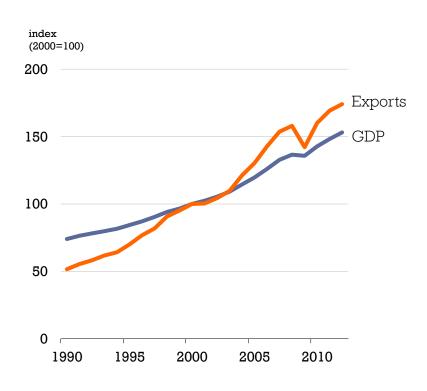
International trade: important, growing, but vulnerable

International trade is important. International trade flows have been growing faster than global GDP for decades. This means that products are increasingly traded across borders. This growth has been driven by improvements in transportation (resulting in lower transportation costs) and communications and IT technology (making it easier to learn about, access, and manage overseas business opportunities). At the moment, total world trade flows are equal to 25% of global GDP.

However, recent years have shown that although international trade may *appear* unstoppable, it is in fact also vulnerable. The financial and economic crisis subsequent to the Lehman Brothers collapse made a big dent in the upward trend of trade. While both exports and imports have since recovered, many economic challenges remain: the institutional crisis in Europe, deleveraging in the US, but also how to take advantage of the high growth in Asia.

We ask in this report: what does the future hold for international trade?

International trade grows faster than world GDP



Drivers of world trade

If we are to understand how trade will develop over time, and where new market chances may be, we need a clear understanding of what drives firms to trade across borders. Our research indicates that:

Market size matters

A 10% increase in market size (GDP) implies a 5% growth in exports toward that market.

Large markets are more attractive than smaller ones due to their larger client base and economies of scale.

Growth matters

A 5 percentage point higher growth rate implies a 0,5 % growth in exports to that market

Fast growing markets are more attractive for businesses looking for growth opportunities.

Distance matters

A 500km increase in distance between trading countries reduces trade with 9%.

Markets are less attractiveness if they are further away - transportation becomes expensive and management costs rise.

The home environment matters

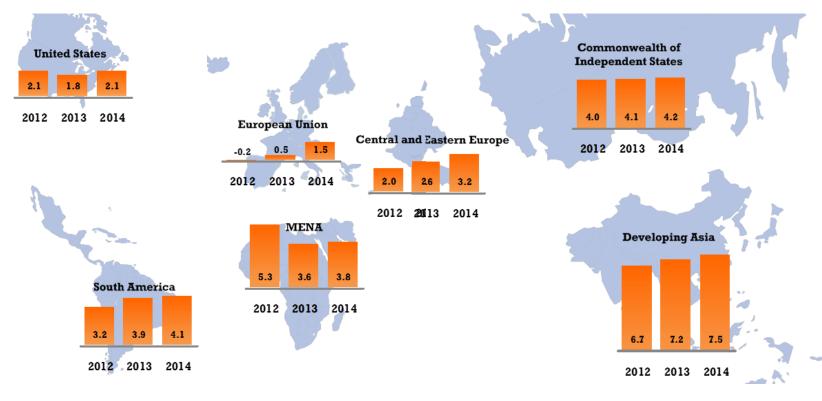
The majority - 55% of the global variation in trade flows is caused by home country factors.

Exports are not only driven by pull factors (attractive markets) but by push factors as well (large & growing home base).



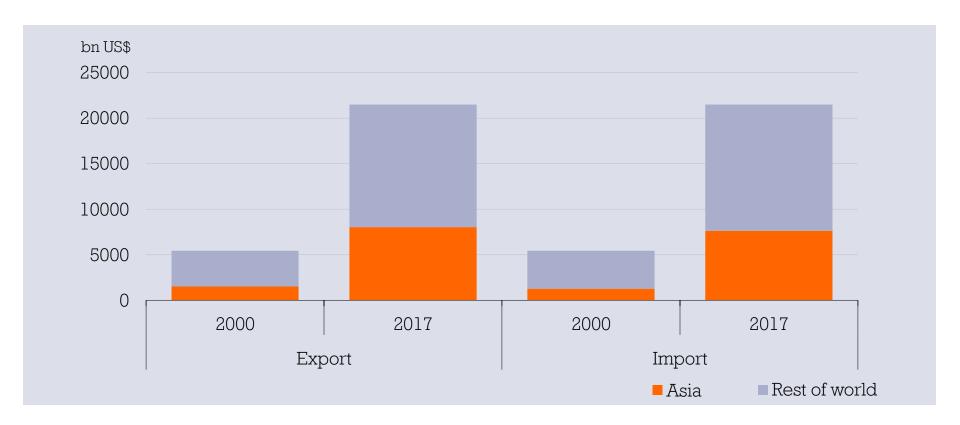
Growth in the next 5 years

Since market size and growth of both the home and export market are key determinants of international trade, we used our ING forecasts for these factors in our analysis and forecasts for global trade. We expect the global economy to growth on average 3,7 %. But especially in Europe – and to a lesser extent in the US as well – growth will be sluggish. Asia is a slightly different story: growth will be high not only in China and India, but also in 'second generation' emerging markets like Indonesia, Taiwan and Korea.



The geographical shift to Asia

As a function of the high economic growth rates, the centre of gravity of world trade is gradually shifting to Asia. By 2017 the share of Asian exports in world exports* will have increased 37% (this was 28% in 2000), and Asian demand for foreign products (imports) will be equal to 35% of global trade in the same period (this was 23% in 2000).



The 'new' growth markets (1)

What are the main growth markets for the next few years? In both absolute and relevant terms, almost literally 'off the chart', is China. With an average percentage increase of imports of 15% annually, it will import more than 2 trillion US\$ *more* in 2017 than it does today.

However, while the emerging markets like Vietnam, Thailand, and Mongolia may also show high growth percentages, the size of the developed markets means that the absolute increase in demand for products is still much higher in for example the US, Germany or the UK.

Top 10 countries with highest absolute import growth (2011-2017)

Import growth (2011-2011)			
	ΔUS\$	CAGR	
China	2460	15.8	
US	787	5.1	
South Korea	511	12	
Taiwan	441	17	
Germany	379	4.5	
India	376	10.4	
Hong Kong	368	9.9	
UK	360	7.4	
Japan	318	5.4	
Italy	317	7.8	

Top 10 countries with highest percentage import growth (2011-2017)

milport growth (2011-2011)			
	ΔUS\$	CAGR	
Vietnam	207	20	
Indonesia	310	18.4	
Taiwan	441	17	
China	2460	15.8	
Thailand	273	14	
Mongolia	7	13.1	
Kazakhstan	41	13	
South Korea	511	12	
Argentina	68	11.5	
Egypt	54	11.5	

The 'new' growth markets (2)

The main products that these newly emerging and already established markets will be looking for in the coming years are products used to build an industrial base. This includes of course industrial machinery; road vehicles and transport equipment, but also office, telecom and electrical equipment. Fuels are also widely imported, but these 'new' growth markets do not differ strongly from other countries in this respect.

Largest imported products by 2017 of 'new' growth markets

Country	l st main import product	2 nd main import product	3 rd main import product	% of top 3 in total
China	Office etc. equipment	Ores & metals	Fuels	52
US	Office etc. equipment	Fuels	Road vehicles & transp. Equip	48
South Korea	Fuels	Office etc. equipment	Ores & metals	56
Taiwan	Fuels	Office etc. equipment	Chemicals	58
Germany	Office etc. equipment	Road vehicles & transp. equip.	. Chemicals	36
Vietnam	Office etc. equipment	Industrial machinery	Textiles	41
Indonesia	Fuels	Industrial machinery	Chemicals	45
Thailand	Office etc. equipment	Fuels	Industrial machinery	47
India	Fuels	Chemicals	Office etc. equipment	53
UK	Road vehicles & transp. equip.	Fuels	Office etc. equipment	37

How international is trade? Your key export market will likely just be next door

International trade is growing. But for all but a few countries, trading relations are concentrated on only just a very few trading partners, that are also often just next door. Indeed many firms active in international business only export a single product, to a single market. It is therefore very likely that your next export market may be just around the corner. Consider these numbers:

50%

The share of all countries for which the main trading partner is a direct neighbour.

The average share of the main trading partner in a country's exports.

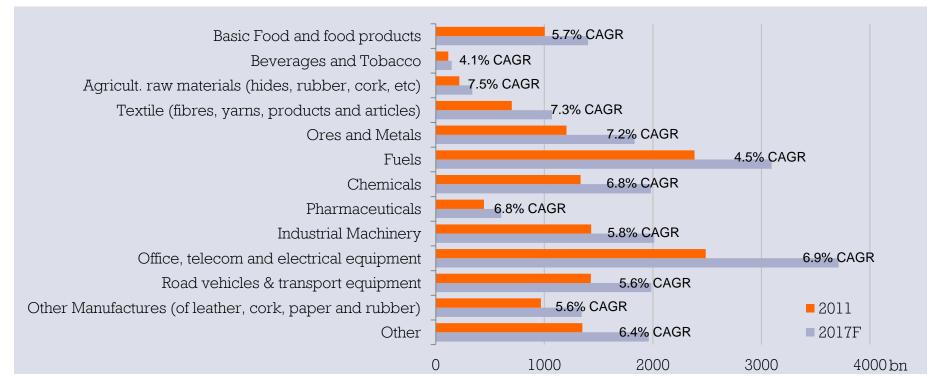
25%

45%

The average market share of the top 3 destinations in a country's total export.

World trade by product group, 2011 & 2017

Trade in all goods is expected to increase in the coming years. Overall, there are few differences in the growth rates we envisage, although as the individual country and product group reports show, there are huge differences across countries. In general we expect food, beverages and tobacco – products that are often bought locally and that are relatively income inelastic – to grow at a slower pace. At the same time, we expect high tech products like office equipment to grow relatively fast. Finally, resource-hungry China stimulates the growth of trade in raw materials and natural resources.



The law of comparative advantage still applies

One of the main benefits of international trade is that it makes specialization possible: countries produce and export those product that they can produce relatively inexpensively compared to other countries. This law of comparative advantage still applies, and according to our forecast will remain applicable in the future: just like trade flows for most countries are strongly concentrated geographically, they are also strongly concentrated with respect to the range of products that is imported and exported.

Average share across all countries of the top 3 product groups in total imports, 2017 | | (45%)

Average share across all countries of the top 3 product groups in total exports, 2017 | (64%)

Largest export products of main markets

Country	1st main export product	2 nd main export product	3 rd main export product	% of top 3 in total
India	Fuels	Textiles	Other manufactured products	48
Brazil	Basic food	Ores & metals	Fuels	69
France	Road vehicles & transp. Equip	Chemicals	Industrial machinery	44
Germany	Road vehicles & transp. Equip	Industrial machinery	Office etc. equipment	50
UK	Industrial machinery	Fuels	Road vehicles & transp. Equip	39
US	Office etc. equipment	Chemicals	Industrial machinery	42
China	Office etc. equipment	Textiles	Other products	63
Netherlands	Fuels	Chemicals	Basic food	48
Belgium	Chemicals	Pharmaceuticals	Fuels	41
South Korea	Office etc. equipment	Road vehicles & transp. equip	Chemicals	54

"Are you done yet?!"

Has this report covered all there is to know about international trade?

Do you now have all the information you need to operate across borders?

Will the ING Economics Department after having published this report – with it's country and product group sub-reports slightly over 800 pages! – now abandon the topic of international trade and international business, thinking that enough is enough?

The answer to this question is straight and simple: ${f NO!}$

This is just the beginning. There is much more to uncover and discuss about international trade and international business. In the nearby future, we will present you with more specific studies on individual countries or regions, like Asia. And with more information about how differences in rules and regulation affect international trade, and how to deal with them. We will tackle the topics that make the patterns and developments of trade increasingly complex, like indirect trade and re-exports. About how international cultural activities may stimulate business across borders.

We'd like to invite you to join us. Contact us to share your views, ideas or research about international trade, so that we can provide you with even better and more relevant information and analysis!

Methodology and data considerations

Our forecasts are derived from an econometric model of international trade in goods among 60 countries. Trade among these countries represents 87% of world trade in goods classified by SITC excluding SITC 9.

- Data (1990-2011) for exports from and among 60 countries (forming 3600 country pairs) at the SITC(rev.3)
 2-digit product classification were obtained from UNCTAD International Trade Statistics.
- These were combined with several macroeconomic variables, including GDP, GDP growth, and unit labour costs (GDP/capita) (for both the origin and destination country; source: IMF), as well as geographical distance and cultural distance between the two countries in each country pair (source: CEPII; Hofstede).
- Forecasts for macroeconomic variables (GDP, GDP growth and ULC) for the 2012-2016 period were based on our own ING forecasts.
- The trade forecasts were derived from a single equation ADL, explaining 90% of the variance in the dependent variable, specified as follows:

$$LogExports_{ijkt} = \alpha_{j} + \alpha_{d} + \beta_{1}LogExports_{ijkt-1} + \beta_{2} \left(LogExports_{ijkt-1} \right)^{2} + \beta_{3d}LogExports_{ijkt-1} \times d + \gamma X_{ijkt} + \varepsilon_{ijkt} + \varepsilon_{ijk$$

where $LogExports_{ijkt}$ represent the logarithmic value of exports of country i to country j of product k at time t, a_j the set of partner fixed effects, a_d the set of product group fixed effects, $LogExports \times d$ the set of interactions between $LogExports_{(t-1)}$ and the product group binary variables, and X the set of independent variables with their vector of coefficients Y, and ε_{ijkt} the residual.

The independent variables include (the log of) GDP; GDP growth and ULC for the reporter (1) and partner countries (j) and geographical and cultural distance.

To find out more or share your views, contact:

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