



no. 1192

Special Report

Trade Routes: What has changed, what will change?

Euler Hermes Economic Research Department

Economic Outlook

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Editorial

Think Supply Chain!

Recent developments in international trade give rise to two fairly clear observations. First of all, the good old model of comparative advantages has seriously been brought into question, giving way to new determinants of trade. For example, why do only 5 to 10 percent of a country's companies account for 95 percent of exports? What role does the network formed by companies and human and social capital play? Why does a T-shirt exported from Japan to the United States cost 30 times more than a Filipino T-shirt sold in the United States? Which countries supply components for an iPhone made in China? What role can a state play in industrial policy when other countries benefit even more from the resulting demand? All of these concerns – granularity, heterogeneity, differentiation by quality, cluster effect, and cost efficiency of public competitiveness policies – are at the heart of the new global trade order.

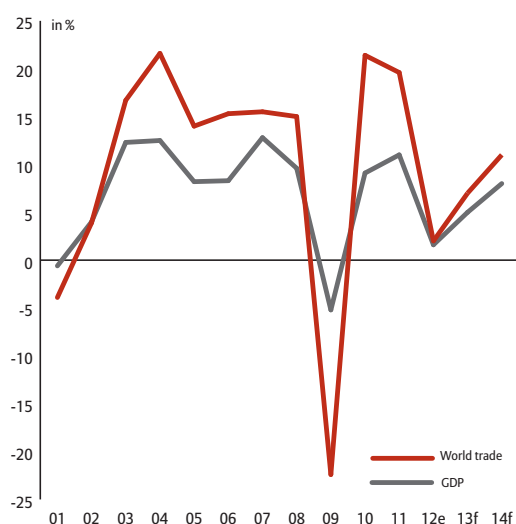
It is also important to note that the successive waves of liberalization and the more or less successful attempts at free-trade zones, which once promised inclusive growth and less volatility, have been particularly unsettled. The many post-crisis protectionist measures, the disruptions to supply chains, and the crises imported from one block to another are some of the reasons for measuring how much the changing regionalization affects sectoral trade and the very structure of the industry. At the latest World Economic Forum, the World Bank explained that supporting supply chains could contribute six times more to the growth and momentum of global trade than simply reducing tariff barriers.

And it is about time. Two years ago, we analyzed the upheaval in sectors following the 2010 stimulus measures: the rise of Brazil in the food industry, the confirmation of Asia's supremacy in technological goods, the advantage enjoyed by industrialized countries thanks to chemicals and pharmaceuticals, and the nearly complete relocation of automotive production and consumption to emerging countries. This special report provides an update of the underlying trends in global trade, beyond headline data, and seeks to identify new risks and opportunities for sectoral routes. *Ludovic Subran*

Trade Routes: What has changed, what will change

Global trade as growth engine: +7% in 2013 and +11% in 2014

► Annual growth in GDP and world trade



Sources: IHS Global Insight, Euler Hermes forecasts

Between 2000 and 2012 average growth in global trade outpaced that in GDP by 3 percentage points. Over the course of the past decade, the increase in exports benefited economic growth and companies' turnover. Foreign trade is expected to continue to increase at a faster rate than growth, which is forecast to recover gradually (+7% in 2013 then +11% in 2014 for trade in value terms, compared with +5% in 2013 followed by +8% in 2014 for nominal GDP). This will be something of a godsend for those countries that have run out of steam, in particular in Europe (where economies have been dragged down by a domestic demand shock). In real terms, global trade will increase by +4.1% in 2013 (compared with GDP growth of +2.5%), followed by +5.9% in 2014 (+3.2% for GDP).

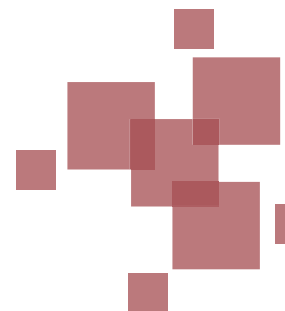
► **Openness is likely to be twice as beneficial for emerging countries as for developed countries: Growth outlets and catch-up effects?**

While it does not constitute a hedge against economic crises, all countries have understood that openness to trade provides a source of wealth, as reflected by the increase in growth rates in value added in the geographical regions most open to foreign trade. The proliferation of free trade zones is the political manifestation of this awareness. Globally, this phenomenon has provided crucial new growth drivers to some zones and, in others, has paved the way for convergence with the world's traditional developed economies. Between 2001 and 2011, emerging economies posted the highest increases in GDP and trade openness ratios. Over this period, the annual nominal GDP growth rate in emerging countries was 13%, coupled with an openness ratio (foreign trade/GDP) of 53%. For developed regions, GDP growth was 5% for an openness ratio of 42%.

► **Proportionally, IT equipment companies export seven times more of turnover than agri-food companies**

With varying scope and rates, this link is corroborated by the different sectors of activity under study. The electronic components, IT equipment and, to a lesser extent, automotive components sectors were the forerunners in the paradigm shift to outsourcing. The share of exports in sector turnover for electronic

components was already 47% in 2000, slightly ahead of the automotive components sector (40%), while it was 80% for IT equipment. For car manufacturers and the pharmaceuticals industry, the challenge is to find growth outlets in new zones of consumption. By all appearances, the agri-food industry has understood the potential benefits it could reap by reducing its relative shortfall in exports and taking advantage of emerging middle classes' recent appetite for high-end food products, but the share of exports in this sector remains far below that of other sectors (around 13%).

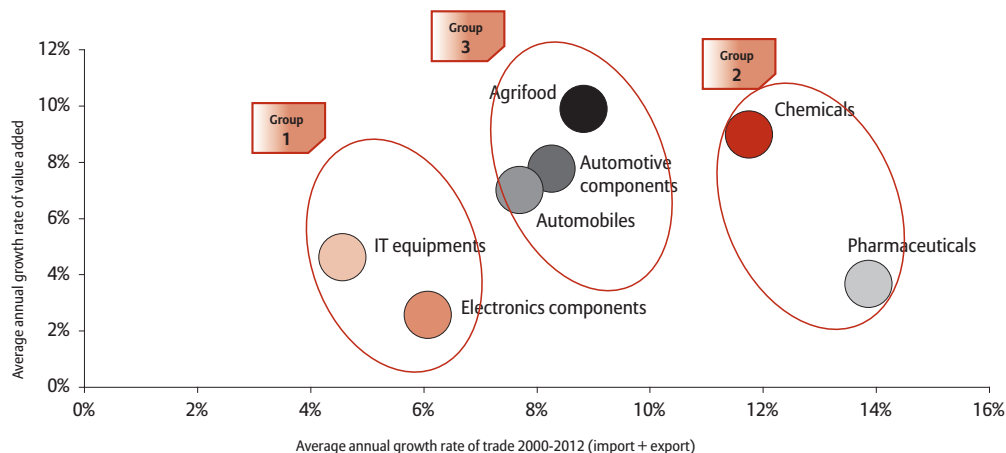


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Sources: IHS Global Insight, Euler Hermes forecasts

Openness to trade and growth in value added by sector



Sources: IHS Global Insight, Euler Hermes forecasts



► Sectoral emergence: What is it?

Three groups of sectors can be distinguished by their degree of openness: the traditional globalization battlers (IT equipment, electronic components), the champions of openness (chemicals-pharmaceuticals) and those with high growth rates in value added that in particular stand to benefit from greater openness (agri-food industry and car makers and component manufacturers).

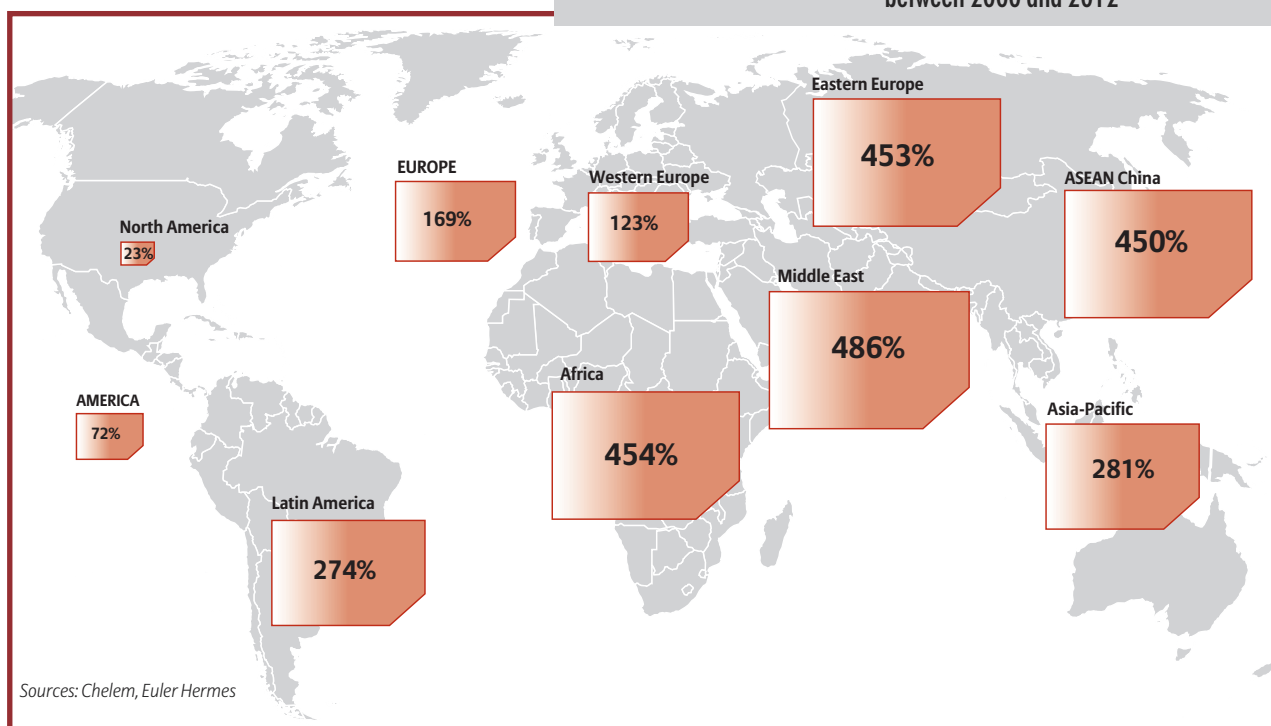
► Building blocs: Centers of gravity and kinship in intra-regional trade

Intra-zone trade, often involving areas of geographical proximity and formed around one

country providing the center of gravity, have spread to nearby regions, such as in the case of China and Thailand, or Russia and the Czech Republic. The relocation of production closer to new, more dynamic zones of consumption has been clear in the automotive, electronic components and IT equipment sectors. This phenomenon has also seen the addition of the chemicals sector in Asia. Such regional pre-eminence is structural in the agri-food sector. For specific reasons, this phenomenon is yet to be seen in the pharmaceuticals sector, although things could change rapidly under the impulse of locally-produced generic drugs. The proliferation of regional partnerships coupled with increased

Change in intra-regional trade

between 2000 and 2012



Sources: Chelem, Euler Hermes

protectionist measures is consistent with this regionalization of trade flows.

► **Success story: Asia, more than three quarters of turnover in IT-related sectors**

Asia has asserted itself in a number of sectors, such as electronic components and IT equipment, where it is the source of 74% and 78% of global turnover respectively in these sectors, but also in automotive components (60% of global turnover).

► **Obstacles specific to each sector and each industry persist...**

For example, the oil price has a direct impact on transport costs, a sector which absorbs 62% of global oil production. The automotive sector is suffering from increasing protectionism and specificities, which complicate the structuring of global industries. The agri-food sector suffers from structural constraints, in particular port infrastructure. In pharmaceuticals, development in trade flows is at the

behest of health funding systems and generic drugs, of which around 75% are produced in emerging countries.

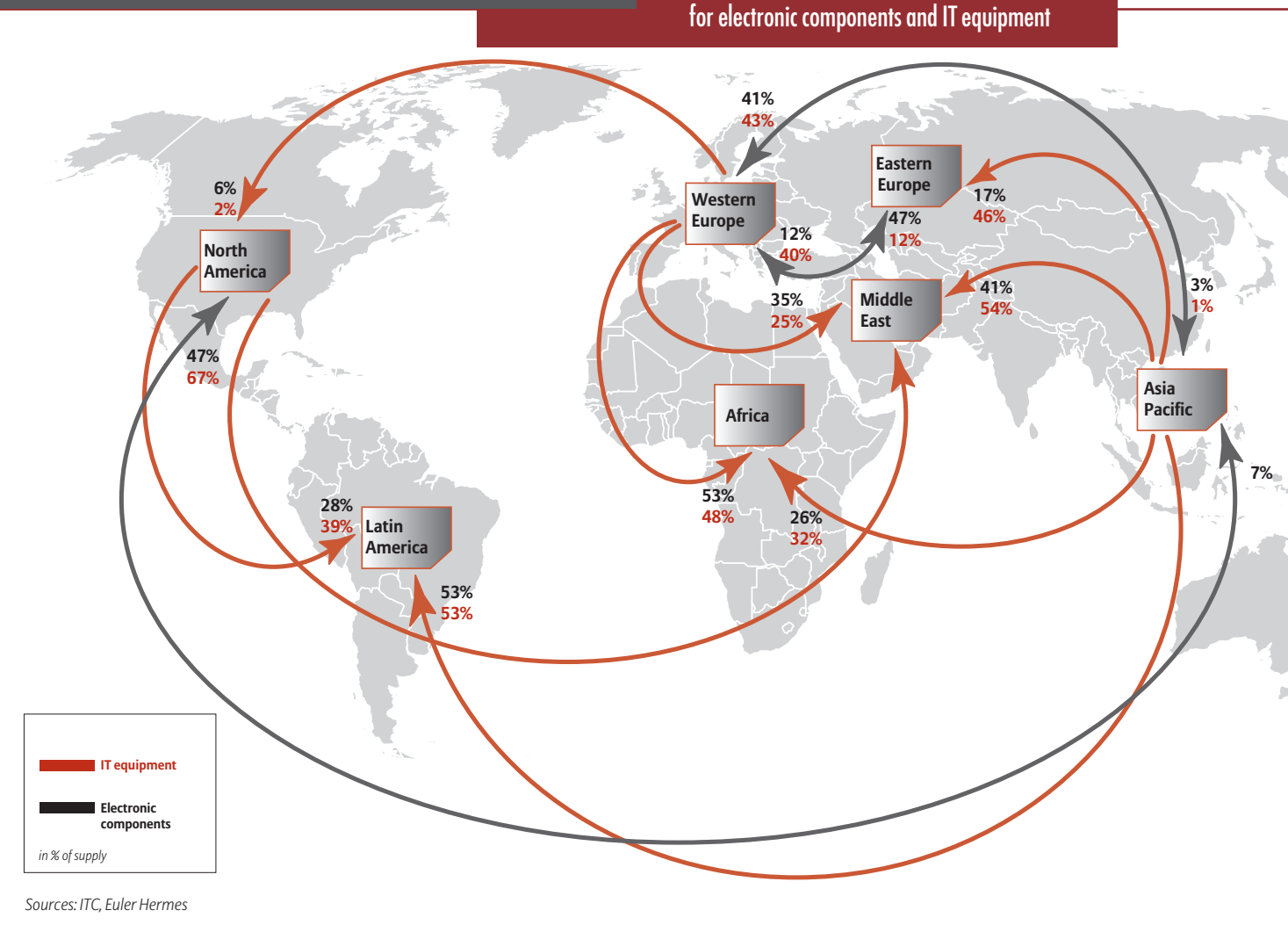
► **... and nascent aversion in the face of a worrying super-dependence**

The rise of protectionist measures bears witness to a certain malaise with respect to the interconnectedness of economies and industries. Shockwave transmission channels have increased, globalized supply chains create situations of reciprocal dependence that lend themselves to the contagion of problems regardless of where they arise and, in 2012, the fall in demand in developed countries was felt across the growth rates of emerging countries. A disruption or a delay in the supply of an electronic component can disturb a production chain on the other side of the planet, as witnessed when the interruption of deliveries of electronic components produced in Japan (tsunami effect) delayed global deliveries of diesel vehicles in 2011. The plastics chemicals sector is dependent on

■ ■ ■

Main supply chains

for electronic components and IT equipment



the volumes and prices of its oil supply, 22% of which is produced in the Middle East. Similarly, the agri-food industry is dependent on production locations of basic agricultural products and weather conditions.

► The next international trade routes: Where to go and how to get there?

International trade contains opportunities for development, on condition that they are accompanied by financing and protection. There is potential for additional demand in many countries, fuelled by growing needs in terms of volumes and rising wealth levels. Emerging countries clearly form the cornerstone of this favorable process for growth in international trade, reinforced by the high proportion of recently-signed trade agreements. Similarly, efforts made in infrastructure construction – an essential stepping stone in the development of trade flows – make it possible to identify the countries that present the greatest opportunities. The inset summarizes this proxy for foreign trade potential. In fact, these opportunities will only crystallize if they are accompanied by financing and protection. Short-term bank credit is essential, playing a role in around 80% of international trade credit. It also needs to be supplemented by hedging against political and trade risks. In addition, credit insurance to assist the healthy management of receivables – including internationally – appears crucial in a changing environment with insufficient knowledge of the ins and outs of destination markets, which are more geographically and culturally (business environment) removed and sometimes present volatile economic dynamics.

► The “Next 18”, (new) demand potential?

China stands out when looking for the countries that will provide additional demand. Chinese growth in imports is expected to reach nearly +10.5%, driven by population growth, infrastructural development, positive wealth effects and urbanization, in addition to new demand (in product sophistication, for example). Countries such as Ecuador (+3%) or Ghana (+5%) also appear as promising markets that often fall under the radar. By contrast, countries’ positioning to capture this demand varies considerably depending on determinants such as connectedness, logistics, and the nature of their exports. (Almost) at the head of the pack, confirming its pivotal position in global trade, our estimates show that China’s exports can be expected to increase by nearly +12.4%. Nevertheless, Thailand sits one above, with +14%. Outside of Asia, Turkey and Brazil remain in pole position, suggesting that the emerging countries already pinpointed in the early 2000s still have good years ahead of them, despite the advent of regional crises such as the confidence crisis currently besetting one of their leading export markets: Europe.

► From the silk road to the chemicals and car road

Featuring at the top of the list among the sectors with high potential growth in international trade in value terms is the chemicals industry, with +21% growth to be captured in 2015 versus 2012, an increase which represents nearly USD 390 billion. Next come automotive manufacturers, (+22%, USD 168 billion). These industries form the top two for different reasons. Within chemicals, for example, plastics

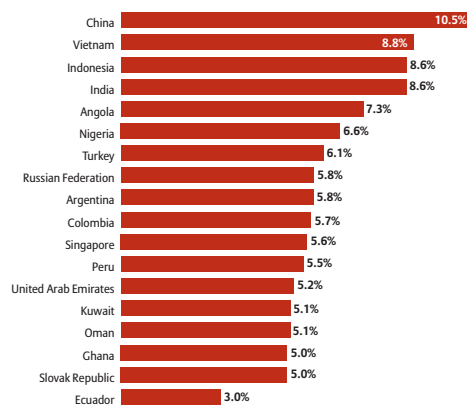
The must go countries

Import needs



Source: Euler Hermes

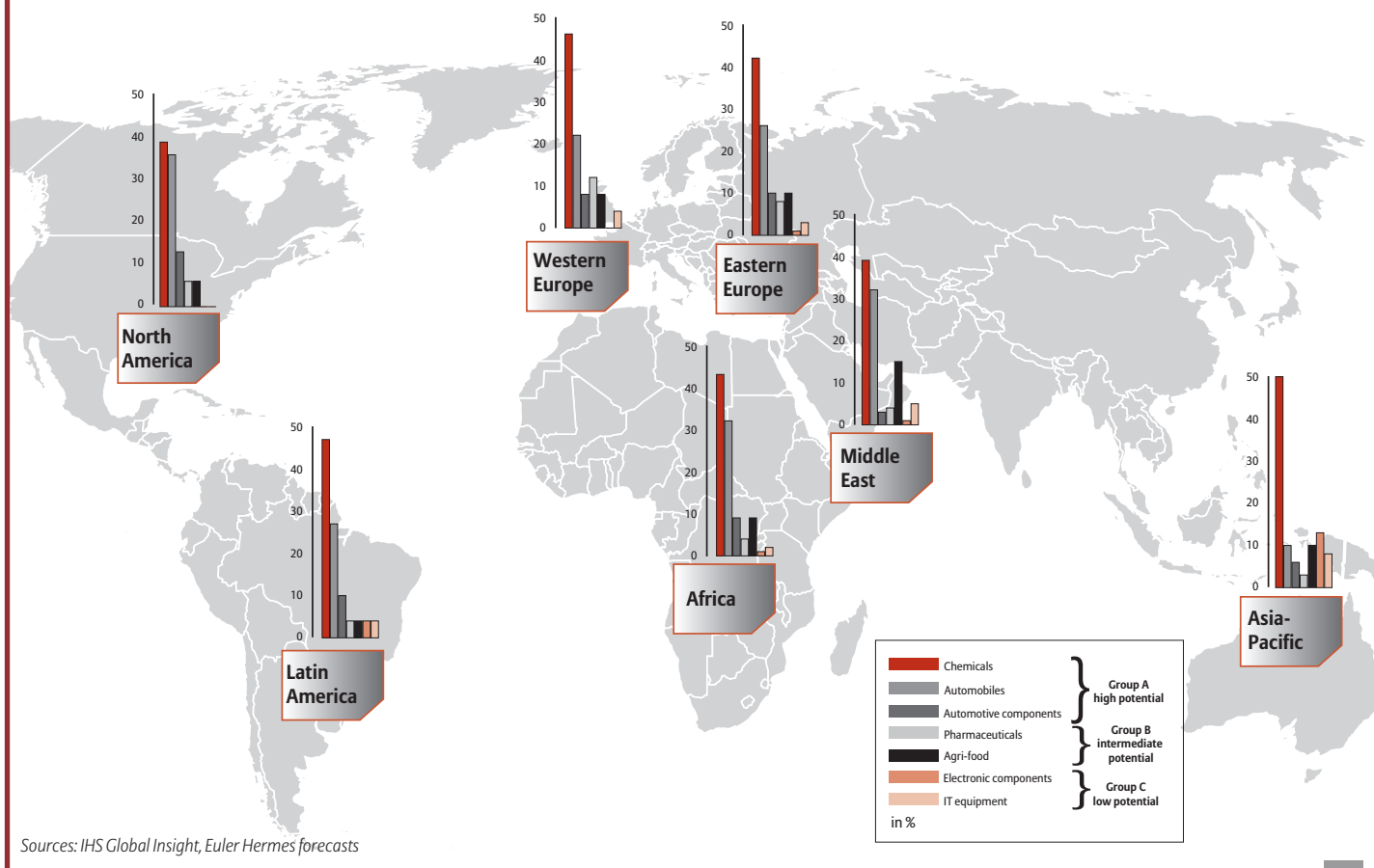
Import growth forecast 2012-2015



Sources: World Bank, IMF, IHS Global Insight, Euler Hermes forecasts

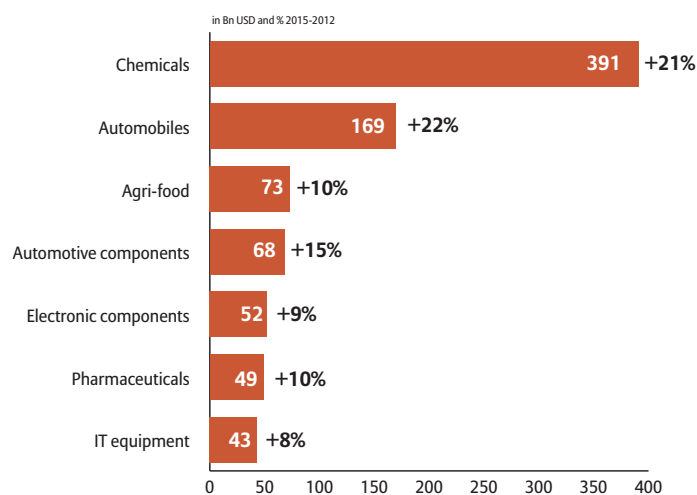
Regional demand potentials

by sector between 2012 and 2015



manufacturing and fertilizers represent an unprecedented windfall both for already-industrialized countries and emerging countries. Africa and also southern Asia surprise by the place they occupy in terms of additional demand and therefore natural opportunity gains for the sector. Beyond old continents, car manufacturers, mainly luxury brands, which are often preceded by component manufacturers, have fine days ahead in Latin America. Turning to intermediate potential, the agri-food sector (+10%, USD 73 billion) reinforces its singularity. Trends in this sector are important because, beyond the opportunity in pure numbers, it is a privileged witness and a leading indicator of structural changes in household consumption behavior, such as strains in the commodity market, which are two determinants to consider in the content of global trade flows. ■

Growth in import potential by sector in 2015 compared to 2012



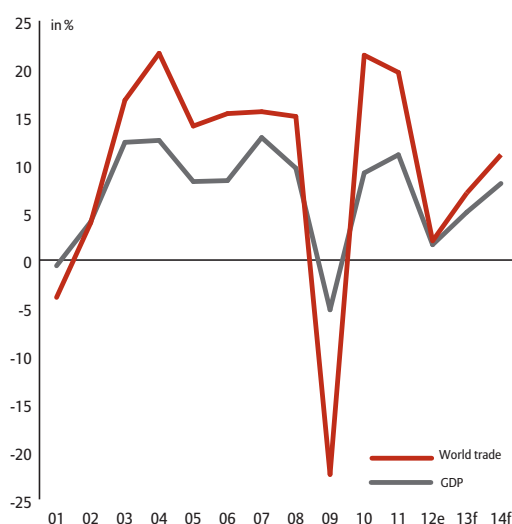
Instruments to support and finance trade

Categories	Products	Description
Inter-firm financing	Transaction on open account (or client account) with deferred payment	Contract established between exporter and importer without third-party involvement. One of the two parties (generally the exporter) provides a credit to the other by accepting a deferred payment (usually from 30 to 90 days).
Traditional bank financing	Credit for investment in capital	Medium-term financing of production means (e.g. machinery).
	Credit for financing current capital	Short-term financing to cover day-to-day costs including payments for suppliers, production, transportation, risk of late payment, exchange-rate fluctuations, etc.
	Pre-export financing	Similar to financing of current capital, but the bank receives interest on the goods transported and a direct payment from the importer. Used for commodities
Payment and liquidity mechanisms	Letter of credit or documentary credit	A letter of credit is a bank guarantee to pay a specific amount to a supplier of a good or a service upon receipt of documentation confirming that merchandise has been shipped or services rendered. The goal of these documents is to provide proof of proper execution of the exporter's obligations. The bank then forwards the documents to the importer in order for the importer to be able to take possession of the merchandise.
	Supplier credit	Financing that allows the buyer to delay payment of imports of good and services. It is extended by the seller whose bank discounts the credit as goods are sent.
	Buyer credit	Term financing to provide liquid payment to supplier.
	Countertrade	Provides liquidity (in particular access to foreign exchange market) to facilitate an exchange for equivalent merchandise (barter, buyback, counter purchase).
	Factoring and <i>forfaiting</i>	Factoring is a financial service where invoices or accounts receivables are purchased from an exporter at a discount, with the buyer assuming the risk of non-payment. Forfaiting is similar to factoring but applies to exporters of capital goods and commodities with very long credit cycles.
Risk management	Advanced payment guarantee	Protection (insurance) provided to the buyer when the seller mobilizes a credit claim. The amount is generally the same and is refundable on demand.
	Performance guarantee	Insurance provided to the buyer, refundable in the event the seller fails to meet obligations (compensates for financing costs, new call for tenders, etc.).
	Refund guarantees	Insurance provided to the buyer when payment must be made during the seller's production phase. Refundable in the event of not-delivery.
	Hedging	Insurance (via a financial instrument provided by a bank) to mitigate market risks, including currency risk, interest rate risk and commodity price risk.
Export Guarantee/Insurance	Export insurance	Insurance for exporters against all types of risks: non-payment, exchange rate fluctuations, political risk, etc.
	Export guarantee	Instrument to protect banks that provide trade credit instruments. Facilitates bank financing of certain export companies (for example SMEs that lack sufficient track records).



When the playing field becomes the world: Restructurings, new developments and a new order

Annual growth in GDP and global trade



Sources: IHS Global Insight, Euler Hermes forecasts

In this chapter we explore new potential in sectors, countries or regions proffered by global trade. Opening the door to distant horizons, the focus on exports as a driver of growth has created new global value chains and a clear increase in wealth.

1.1 Well beyond a mere *pas de deux* between GDP growth and growth in international trade, new sectoral dynamics have emerged

► Global trade and GDP are progressing together. In a near future, the soundness of international trade appears to be boosting the recovery

Since 2001, GDP and global trade cycles have been relatively in sync, with two peaks in 2004 and 2007

■ ■ ■ respectively, and three cycle troughs in 2001, 2009 and 2012. On average between 2001 and 2012, growth in global trade was higher (+10%) than that in GDP (+7%), and in absolute terms the former grew threefold between 2001 and 2011 (GDP doubled). The magnitude of these fluctuations has also been much larger in the case of global trade, which fell from +15% in 2008 to -22% in 2009, versus +10% and -5% for GDP. In 2013 and 2014, with respective increases in global trade of 7% and 11% on the one hand, and GDP growth of 5% and 8% on the other hand, the growth differential observed over the long term looks set to stay.

► **This correlation is even more interesting when we look at growth in turnover per sector**

Driven by the sophistication of production processes, international trade has grown faster than economic growth. For companies, this translates into an increase in the share of exports in their total revenue. This trend however has not been uniform over all sectors and geographical regions between 2000 and 2012. While foreign trade in the electronic components, pharmaceuticals and chemicals sectors seems to barely affect sales, this dynamic is clear in the IT equipment and automotive component sectors.

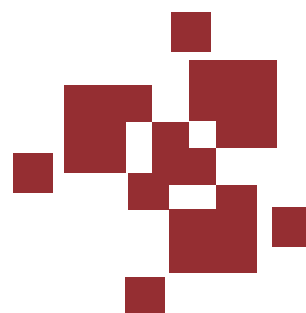


► **Exports in the electronic components sector, an important long-term factor, have stabilized**

Exports in the electronic components sector represent around 60% of sales, in a market presenting long-term structural growth. The effects of the crisis have quickly dissipated. Although the sector was affected by a slowdown in activity in 2008 and 2011, it was quick to bounce back after the crisis and regain its former pace of internationalization. Electronic components are omnipresent in business and household goods. Its natural markets are IT and telecommunications equipment (45%) and consumer audio and video equipment (20%). The aerospace and defense (7%), automotive (8%), and industrial and medical (18%) sectors are adding to its growth, making electronic components a primary commodity for many industries. This will contribute to the continued growth of the share of exports in this sector's turnover.

► **Historically the privilege of developed countries, exports in the pharmaceuticals sector present global growth opportunities**

The pharmaceuticals sector has long depended on the quality of health insurance in developed countries. New diseases and the relative population ageing in developed countries have boosted activity in the sector and fuelled the exports of large pharmaceutical companies with the most cutting-edge investment in R&D. The 2008-2009 economic crisis triggered several budgetary crises in developed country welfare states, which were forced to reduce their generosity in the financing of health insurance schemes. The slowing activity of pharmaceutical companies in developed countries was offset by growth outlets in emerging countries with large and growing middle classes. However, pharmaceutical companies have been penalized by much weaker purchasing power and they have favored competing generic medications, which has fuelled deflationary pressures. Looking out to 2015, reaching the emerging middle classes in the emerged countries remains crucial to the growth of the large global pharmaceutical companies. Nevertheless, the opening up of such markets is unlikely to accelerate: first, because emerged countries are also faced with decisions on how to finance their healthcare spending. They prefer efficient and cheap medication; second, because the healthcare authorities in developed countries investigating the manufacturing standards of imported medication are shining increasing light on conflicts in manufacturing standards according to the geographical location of the factories they visit.



Growth in turnover and international trade by sector

Annual growth	Electronics Components	Pharmaceuticals	Chemicals	Agri-food	Automobiles	Automotive components	IT Equipment
Turnover	4.2%	8.5%	9.7%	9.1%	8.0%	9%	4.5%
Exports	5.9%	13.3%	10.5%	8.9%	7.8%	8.4%	3.1%
Imports	6.3%	14%	10.8%	8.8%	7.6%	8.3%	2.5%

Sources: IHS Global Insight, Euler Hermes forecasts



► The chemicals sector turns to exports in search of growth, like its main markets the automotive and construction sectors

Highly granular given its wide range of clients and suppliers, the chemicals sector has long benefited from healthy markets in developed countries as well as from demand in emerging countries and, in particular, Asia. The economic crisis in developed countries from 2008 marked an abrupt slowdown for the sector, which has yet to regain its pre-crisis levels of activity. The chemicals sector has had to adapt: move upmarket in mature regions to uphold prices at the expense of volumes; significant increase in investments over the past decade to increase capacity in emerging countries in order to capture surging local demand. The share of exports in global turnover in the chemicals sector could however slow by 2015. The chemicals exports of developed countries are faced with the recent slowdown in economic growth in the Asia-Pacific region which, until now, had been growing exponentially. The North American market historically accounts for a substantial share of global chemicals exports, and this was still the case in 2012 for European chemicals. The ongoing shale gas revolution in the United States is changing the game. In time (perhaps around 2020), the excess supply of raw energy in the United States could even reverse the direction of trade that until then will have favored the Old Continent.



► Exports in the agriculture and agri-food sectors remain small and volatile on the whole

The agriculture and food sectors are not very open internationally. Exports amounted to around USD 1,300 billion in 2011, or around 7% of exports of industrial goods. The 2008-2009 crisis marked a break in the sector dynamic, which had seen exports increase faster than turnover between 2000 and 2008. The sector had benefited from a double boost: a growing middle class and a dietary transition towards

meat and dairy products, sugar, etc., and as a result, a surge in demand for some commodities and therefore a surge in their prices, excluding weather and demographic effects. The post-recession period has been more volatile, with significant price fluctuations and a more erratic business climate. When the environment has made it possible to do so, countries that had previously been big importers have reoriented local production to various degrees in order to reduce dependence. Overall, this translates into an easing of the shares of exports of these products.

► Strategic changes have affected exports from car manufacturers

Up until the 2008 crisis, exports in the automotive sector increased faster than sales, primarily due to the development of new markets in China, Brazil and Russia. However, the burgeoning size of the latter – particularly in China – justified substantial investments in local production, thereby reducing trade flows. In addition, the crisis led to the implementation of protectionist measures (Brazil and Russia), which further reduced trade to the benefit of local investment. And finally, as for the traditional, more open markets, they have either picked up but not yet returned to their pre-crisis level (United States), or have continued their post-2008 decline, such as Europe, which is still languishing 20% below its pre-crisis level. For economic and financial reasons, the trend over coming years will remain a concentration of production in consumption zones, which will limit large-scale export activity.

► Anticipating strategic changes in the automotive industry, component manufacturers have favored exports

In the automotive industry, note that component manufacturers had anticipated the strategy of carmakers by investing in production zones. The share of international trade in their sales started to decrease in 2005. This focus in production zones remains the strategy of all market players, as the decline in international trade is set to continue over coming years.

► Although the dynamic is slipping, the IT equipment market remains export-driven

The IT equipment sector is an ideal export market. At around 70% of turnover, exports sit head and shoulders above the levels seen in other sectors. However, the characteristics and the behavior within the IT equipment market make it a highly competitive sector: it faces strong downward pressure on sales prices. It also suffers from the effects of its maturity, resembling more a replacement market – particularly

Share of export in turnover by sector

Sector	2000-2012 average	Min	Year	Max	Year	2013-2015 forecast
Electronic components	51%	45%	2001	57%	2012	61%
Pharmaceuticals	41%	27%	2000	49%	2009	40%
Chemicals	39%	34%	2000	43%	2007	39%
Agri-food	13%	11.3%	2012	14.2%	2008	11%
Automobiles	36%	31.3%	2012	42.3%	2008	32%
Automotive components	40%	34.8%	2012	46.5%	2005	34.5%
IT equipment	94%	73.9%	2012	116.7%	2006	70%

Sources: IHS Global Insight, Euler Hermes forecasts

■ ■ ■ in the most advanced-given that the technological innovations that have defined its history are becoming increasingly scarce. Sales growth of IT equipment is increasingly found in production zones. As a consequence, the contribution of exports to the sector's growth is losing strength and stabilizing at its current level. We are witnessing a decline in the share of exports in sales, a sign of the cycle coming to an end. Beyond 2015, this dynamic may be recaptured, but it will take place in new countries and new continents.

1.2 When Asia become the factory for the world

► Emerging countries have outperformed over the past decade

An analysis of the evolution of market share gains in terms of global GDP and goods trade in terms of value added shows that (i) developed economies remain leaders, but (ii) their performance relative to emerging economies is slowing. Whereas they accounted for nearly three quarters of global GDP in 2001 (80% of global trade), developed economies now account for only 60% of global GDP (60% of global trade).

► By geographical region, Asia-Pacific has become the second-largest trade area in terms of its share in global trade

Whereas it represented only 25% of global trade in 2001, behind the America (26%) and Europe (43%), Asia-Pacific accounted for nearly 32% of global trade at end-2011, compared with 20% for the Americas and 40% for Europe. This outperformance is explained by the dynamism of ASEAN-China or ACFTA (ASEAN-China Free Trade Agreement). Indeed, ACFTA is the region that has recorded the greatest growth in terms of trade and economic activity, with fivefold increase in these two indicators over the period. Hot on its heels come the Middle East and Eastern Europe, where GDP has increased fourfold and trade fivefold. The weakest performances were in Western Europe, where GDP and trade have "only" doubled.

► Asia has taken the lead in IT equipment exports

During the past decade, Asia has filled the void left by North America and Western Europe in the IT equipment manufacturing industry, for consumer products in particular. Conversely, from a modest starting point (less than 2% market share in 2000), Latin America has tracked at the same pace as the rest of the world. The other geographical regions, which are marginal in terms of market shares, have reported growth rates of between 7% and 10%.

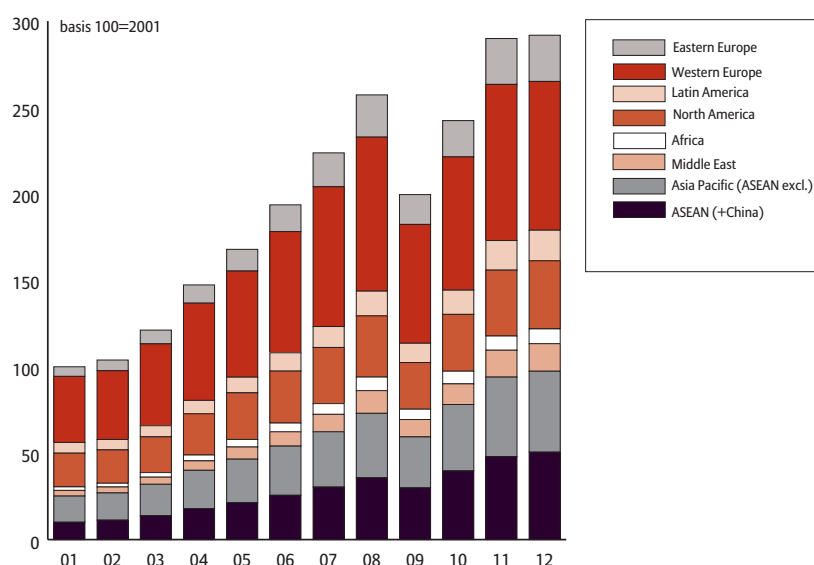
► Asia has also consolidated its dominant position in the electronic components sector

Asia now controls close to three quarters of the global market for electronic components. To a lesser extent, Eastern Europe has also been successful and has doubled its market share, although this market share is still not very significant. By contrast, North America and Western Europe have lost market shares. The underperformance of the Middle East, despite having a well-developed electronics industry, stems from the fact that the region was particularly affected by the bursting of the internet bubble in the early 2000s.

► In short time, Asia has become world leader in automotive component manufacturing

Growth in activity and offshoring of production have been particularly noticeable in the case of automotive component manufacturers. Asia now accounts for 60% of world turnover for automotive suppliers. As has been the case with car manufacturers, the two regions to have given up most ground are North America and Western Europe, where growth has been sluggish and production costs have become hard to bear in an industry tagged as deflationary: ever-

Regional market share index for worldwide trade



Sources: IHS Global Insight, Euler Hermes forecasts

increasing equipment for comfort and safety at sluggish growth in car sales prices.

► **Asian car manufacturers have also gained market shares**

In the automotive manufacturing sector, activity has shifted to Asia, which now represents close to 43% of world turnover, with certain heavyweights – China, Japan and South Korea – alone representing close to 90% of turnover in Asia-Pacific. Growth in Eastern Europe stems mostly from outsourcing from Western Europe. South America, on the other hand, has benefited from growth in its domestic market. The Middle East and Africa continue to have an insignificant footprint in the car manufacturing sector.

► **Asia has emerged over the past decade as the new heavyweight in the chemicals sector**

Asia now accounts for half of global chemicals turnover, more at the expense of North America than Western Europe. The substantial weight of the Asian chemicals sector is a result of massive investments from large Western chemicals players over the last decade with a view to establishing themselves locally and capturing this emerging demand. Faced with the Asian steam roller, the European chemicals industry has fared better than its American counterpart. The former has benefited from a more rapid upmarket shift in production, which has allowed it to better maintain prices and thus withstand deflationary pressures.

► **The European pharmaceuticals industry is withstanding the inexorable rise in power of the Asian juggernaut**

Because it includes Japan, which, although closed to international competition, is too often forgotten as the pharmaceutical sector's second-largest market after the United States, the weight of Asia in the sector should not be overstated. Growth rates in emerging countries over the period may seem high, but they started from a very low base level. Europe's competitive advantage in the pharmaceuticals sector remains in force. It results from the technological power of its leading players, which include five of the top 10 global pharmaceutical companies when Swiss companies Novartis and Roche are included.

► **Combination of factors favorable to the rise of Asia in the agri-food industry**

The global mapping of the agri-food industry has closely followed the progress of two parameters during this period: the demographics and the economic dynamics of each region. Thus, Asia has drawn on this double dynamic to increase its weight in the global agri-food industry. The structure of the agri-food industry, comprising increasing consumption of processed food products, reflects the progress in the purchasing power of the middle classes. In the absence of strong demographic and/or economic growth drivers, the developed countries in North American and Western Europe have not benefited from the same momentum.

1.3 Some regions and sectors have emerged and grown richer

The opening up of international trade has favored growth particularly in emerging countries and free-trade zones.

► **The opening up of international trade has been a growth factor in each of the world's regions**

All regions in the world have benefited from the opening up of their economy, whether they are considered in economic terms (developed vs. emerging), geographical terms (America, Europe, Asia, Africa) or as the fruit of trade agreements (European Union, GCC, Mercosur). This opening has resulted in an acceleration in growth of close to 0.2 percentage points on average. The more open the economies, the stronger the economic growth has been. With a degree of openness of close to 71% on average over the decade, ACFTA (ASEAN-China Free Trade agreement) has been the best-performing region (+17% on average). By contrast, NAFTA, with a

Asia, horn of plenty

	Asia-Pacific Share of initial turnover 2000	Asia-Pacific Share of initial turnover 2012	Asia-Pacific average annual growth rate 2000-2012	Global average annual growth rate 2000-2012
Electronic components	51.9%	74.8%	7.4%	4.2%
Pharmaceuticals	30%	47.9%	13%	8.5%
Chemicals	31.7%	52.5%	14%	9.7%
Agri-food	27.5%	42.0%	12.6%	8.6%
Automobiles	32.3%	42.8%	10.1%	7.6%
Automotive components	26.3%	60%	16.3%	9.2%
IT equipment	47.7%	78.1%	8.8%	4.5%

Sources: IHS Global Insight, Euler Hermes forecasts

■ ■ ■ degree of openness of 30%, has registered the weakest performance.

► **Emerging economies have benefited more from the opening up than developed economies**

Over the last decade, international trade has been more beneficial to emerging economies. A “catching-up” effect seems to have taken place. Economies with the lowest life expectancies (measured as GDP per capita) benefited most from the opening up (with growth rates above +9%), more than those with the highest life expectancies (globally below 9%). In other words, the opening up has benefited economies but its impact has been less significant for those with an “economic” size close to that of North America.

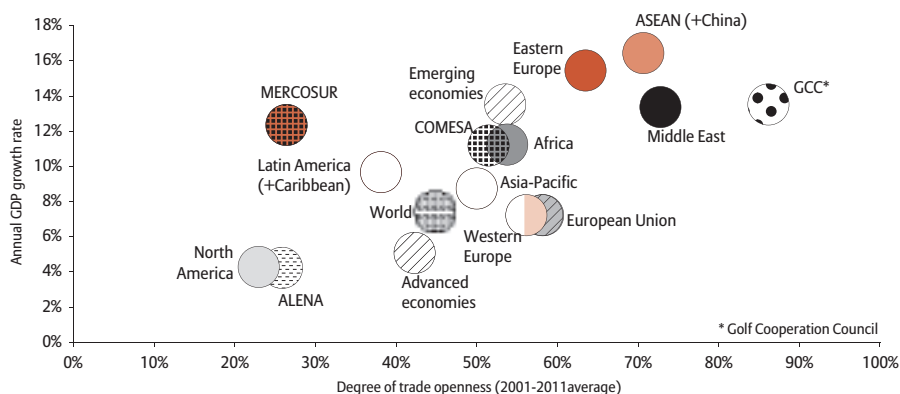
► **Trade zones have globally outperformed their respective regions**

At the least, trade agreements have allowed countries to maximize the impact of trade liberalization at the regional level. Also, “trade” regions have outperformed their respective regions. The most significant performance has been from the ACFTA, achieving 7 percentage points more growth than the Asia-Pacific region as a whole. The weakest performances were recorded by North America and the European Union, where trade zones almost matched up with geographical regions.

► **Beware however of the risks of contagion**

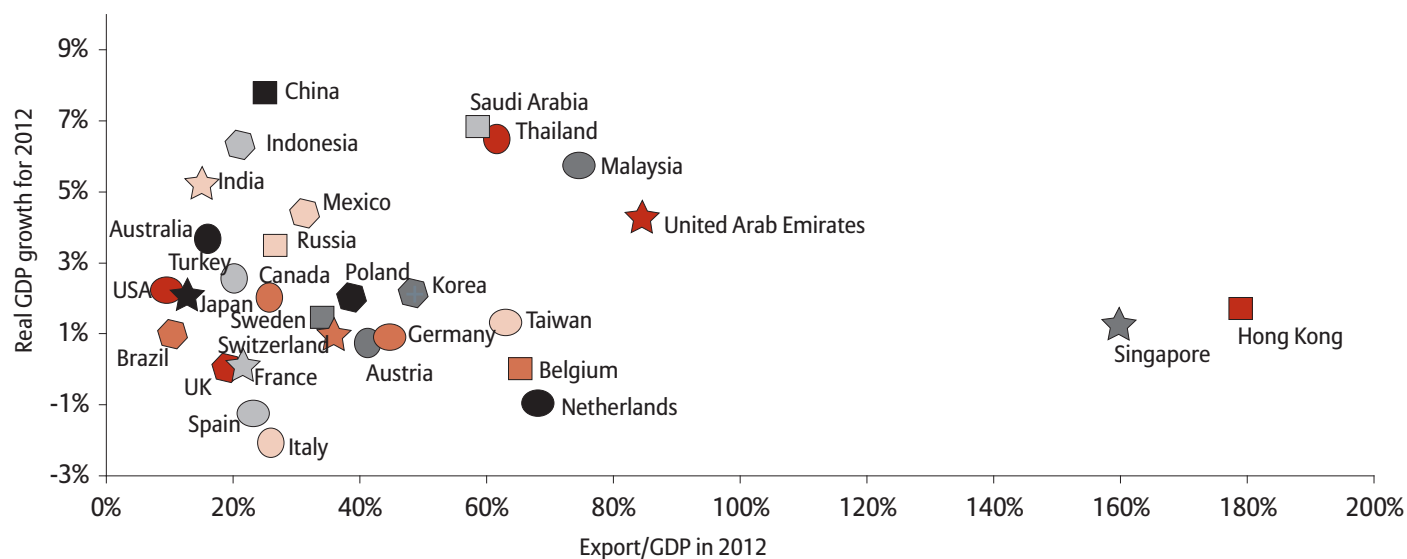
However, in the aftermath of the 2008-2009 recession, the risks tied to too much or too rapid liberalization became clear. In terms of growth, note that some countries particularly open to international trade were that much more vulnerable in 2012 to the loss of vigor in neighboring regional blocks. For example, emerging economies that had developed close ties with the eurozone have been hit by a substantial slowdown in growth, “imported” by demand shocks in the countries that receive their exports. Turkey, on the footsteps of Europe, and also smaller open economies in Asia have seen their GDP growth rates slump, directly in line with the slowdowns observed in Europe. On the other hand, certain economies less open to global trade have managed to maintain substantial growth rates in 2012 (Indonesia, for example), proving that while interdependence is a precondition to structural growth, it can also be unsettling economically.

Trade liberalization between 2001 and 2011 and growth rate by region



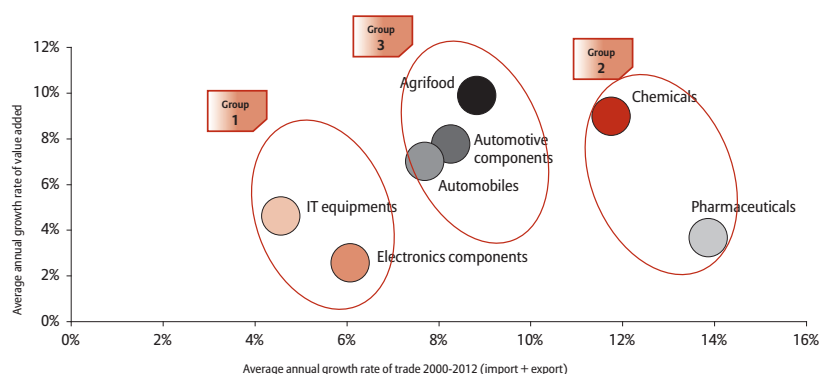
Sources: IHS Global Insight, Euler Hermes forecasts

Exports and growth rates by country



Sources: IHS Global Insight, Euler Hermes forecasts

Openness to trade and growth in value added by sector



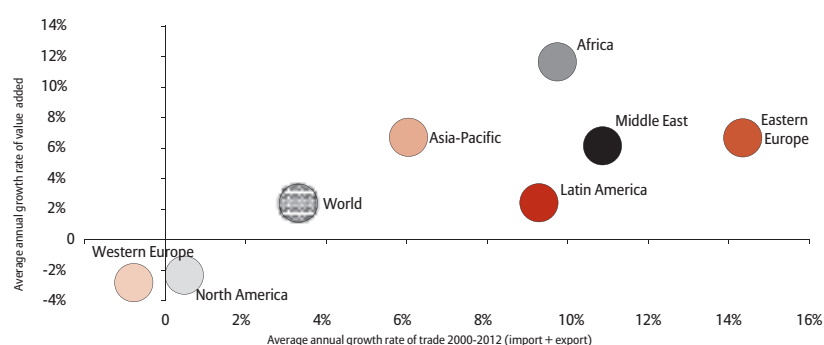
Sources: IHS Global Insight, Euler Hermes forecasts

► **New developments and catch-ups are also valid by sector**

A comparative analysis of trade since 2000, measured by average annual growth rates for exports and imports, and of value added, measured by its average annual growth rate, shows that not all sectors have benefited to the same extent from this growth. Despite significant efforts to increase trade, the pharmaceuticals sector has not been able to significantly grow its value added, while chemicals have succeeded in this endeavor. With less effort in terms of trade growth, the automotive and agri-food industries performed well in terms of growth in value added. Trade in the electronic components and IT equipment sectors did not increase much, nor did these sectors improve significantly their value added.

Group 1 Historically globalized, highly competitive

Openness to trade and growth in value added in information technology



Sources: IHS Global Insight, Euler Hermes forecasts

► **The opening up of the electronic components sector to international trade has benefited emerging zones in terms of value added**

At the global level, 6% of trade growth corresponds to 2% of growth in value added. The emerging regions that have experienced the strongest trade growth have also experienced the strongest growth in value added. Whereas the most developed countries are no longer able to keep their position in global trade, they are also losing in terms of growth in value added in the electronic components sector. Emerging countries

are pulling the world along, notably Eastern Europe whose liberalization drive has been more recent but also more profitable in terms of value added.

► Marked asymmetries in IT equipment depending on the different regions

The global average (increase of +3.5% in trade and +2% in value added) is dragged down by two regions: Western Europe and North America are at the opposite end of the scale from the other regions. In fact, export growth in the sector has abandoned these two regions (zero or even negative growth). By contrast, emerging regions have seized those markets and are able to generate slightly higher growth rates in value added than those in electronic components. Again, Eastern Europe and also Africa are benefiting from their opening up.

Group 2 The champions of market liberalization

► The international development of the pharmaceuticals sector has benefited emerging regions in value added terms

At the global level, 14% growth in pharmaceuticals trade corresponds to a little less than 8% growth in its value added. But two blocks stand out: on the one hand, Eastern Europe, Asia and Middle East, which are growing rapidly; on the other, developed countries, Africa and Latin America. The pharmaceuticals industry has long been the reserve of developed countries that have concentrated both medication sales and R&D. Large Western pharmaceutical companies have taken advantage of emerged countries' freshly solvent demand for pharmaceuticals products. On the other hand, these companies have suffered from the lower productivity of their R&D and from the competing supply of generic drugs with much less value added than their patented medications.

► The chemicals sector breaks down into two blocks:

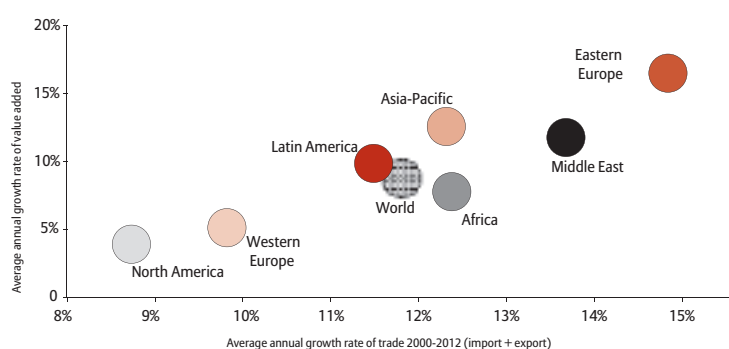
North America and Western Europe on the one hand, and emerging regions on the other. Compared with other sectors, growth in trade in the chemicals sector has always been high, with a minimum growth rate in excess of 8% over the period in question. Mature regions have seen growth in their trade penalized by the difficulties encountered by some of the large industries to which they supply, such as the automotive industry for example. Furthermore, the principal players in the Western chemicals industry did not await this decade to invest massively in high-growth regions. They now produce more locally, while still improving the market positioning of their products with a view to withstanding deflationary pressures from their Asian competitors that offer cheaper albeit more downmarket products.

Group 3 Ready to open

► Trade growth in the automotive sector results from growth in demand from emerging countries, but also in large part from offshoring mainly to the benefit of Eastern Europe, the Western European market's leading new manufacturing region

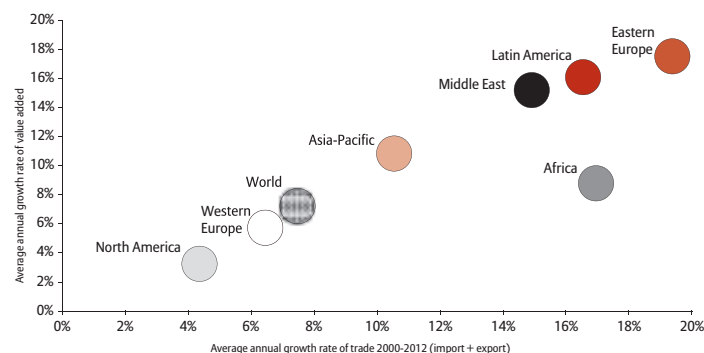
While the North American automotive industry may consider the past 10 years as a lost decade, it has regained growth and profitability over the past two years on the back of major restructurings. Still, trade has been concentrated within the region itself. Western Europe is still lagging and has been facing a declining market for several years. Even though it is growing, Africa remains largely insignificant in the automotive sector, with the exception of South Africa. South America is growing strongly and is benefiting from vigorous domestic demand, while the strong growth in Eastern Europe is a result of

Openness to trade and growth in value added in the chemicals



Sources: IHS Global Insight, Euler Hermes forecasts

Openness to trade and growth in value added in automobiles



Sources: IHS Global Insight, Euler Hermes forecasts

offshoring from Western Europe, but still serves demand mostly from Western Europe. Trade growth emerges as a driver for the creation of value added and therefore wealth. Automotive sector players with a footprint throughout the various global markets have posted growth and profits above their more regional counterparts.

► **The mapping of automotive component manufacturers is fairly similar to that of car manufacturers, with the exception of Asia which is more open, with a focus being on lower labor costs than in the producer countries**

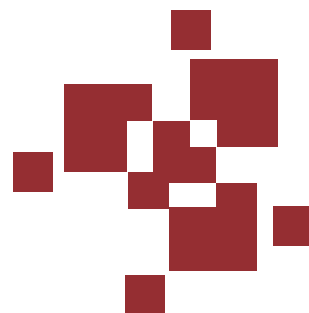
Japan, which has suffered from a strong appreciation of its currency for several years, is the chief victim of this trend. The position of North America illustrates the crisis that this industry has endured over the past decade, with car registrations in the American market declining from 17.5 million in 2005 to 10.5 million in 2009. Many market players were in fact forced to file for bankruptcy protection in order to see through the necessary restructurings.

► **In the agriculture and agri-food sectors, all regions have contributed to growth in trade and in the creation of value, although a two-speed global “map” has taken shape between developed countries (Western Europe and North America) and emerging countries.**

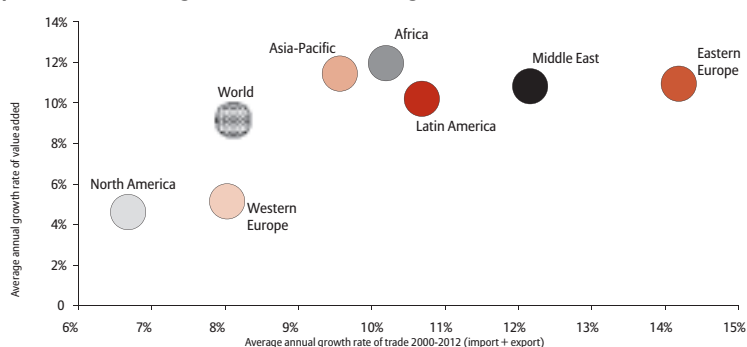
For the agriculture and agri-food sectors, growth in trade seems to have contributed to the growth in sector wealth, with near-identical increases during the period under study. Sectoral trade has grown by +8%, value added by +9%. These figures put the agriculture and agri-food industries among the main beneficiaries of globalization in terms of this twin growth.

The regions that have positioned themselves on these trade routes, whether through strategy or opportunistically, and that have experienced the

strongest growth in performances are also the regions that have seen the most substantial increases in value added in the sector (chief among which Eastern Europe, Latin American and Asia). For some, the dynamic of increase in trade/increase in sectoral value added has been key to their economic development. The regions considered to already be mature have posted the smallest increases in trade, resulting in less vigorous wealth creation. ■



Openness to trade and growth in value added for agri-food

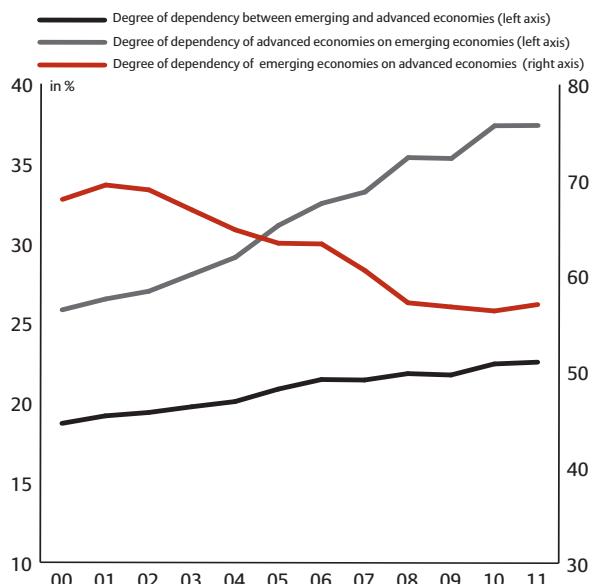


Sources: IHS Global Insight, Euler Hermes forecasts

2.

The reality of economic interconnectedness as a factor of volatility

Indicators of trade dependency between emerging and advanced economies



Sources: Chelem, Euler Hermes

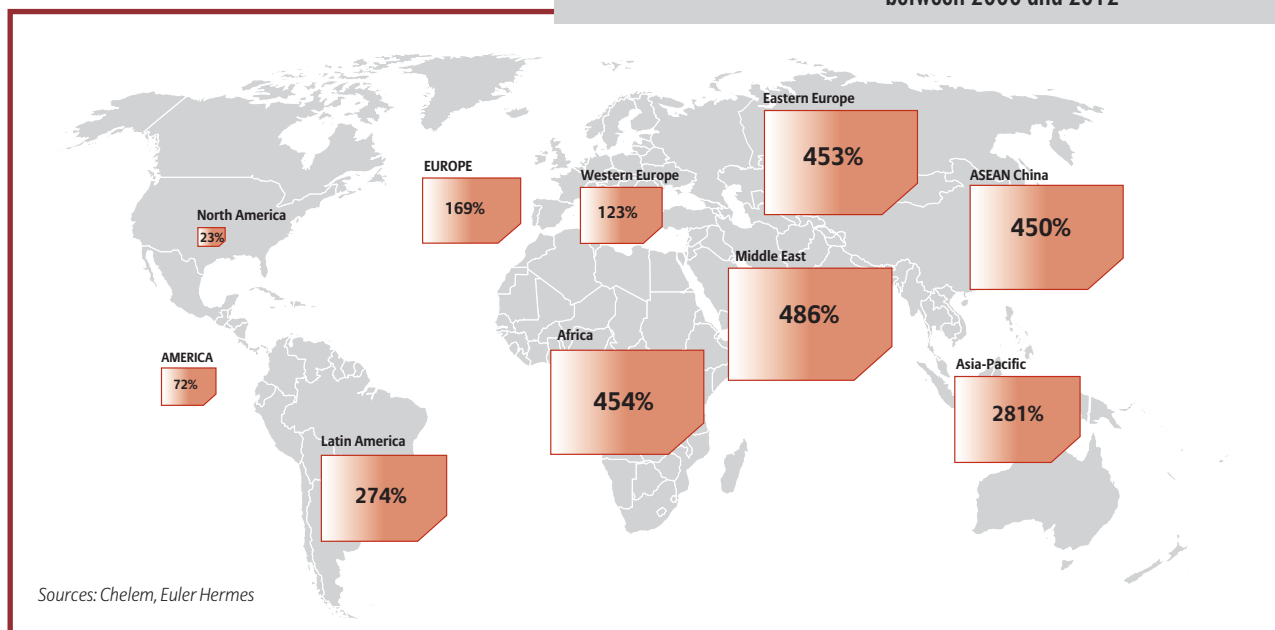
As shown above, global trade growth has been benefited most regions and sectors, with different stories and results, some more turbulent than others and some more or less consolidated. Behind these successes, new developments and catch-ups often lies the deployment of specific strategies depending on the regions and sectors that has formed today's strengths and weaknesses in the international market. What are the limitations of and weaknesses in international trade growth today?

2.1 Reality check: Economic interconnectedness as a factor of volatility

► Regions are increasingly connected, driven by increasingly regionalized trade flows. Inter-regional trade ties have increased, but the logic of dependence has gradually changed, giving

Change in intra-regional trade

between 2000 and 2012



way to greater autonomy on the part of emerging economies. In addition to expanding inter-regional trade, intra-regional trade has also gathered pace

Trade agreements between emerging and developed economies increased over the past decade, but the pace slowed at the end of the periods (+2 points between 2001 and 2007, +1 point since 2007). Nevertheless, emerging economies remain very dependent on developed economies, with volumes between the two representing over 50% of the former's total trade. However, this degree of dependence is decreasing rapidly (-12 points between 2001 and 2011). This follows in particular the emergence of industry giants among these regions, especially in Asia (China, Thailand), but also in Eastern Europe (Russia, Czech Republic), that are slowly overturning production patterns. The dependence of developed regions on trade with emerging countries remains slight (one third of trade on average between 2001 and 2011), a situation due in large part to the substantial amount of intra-eurozone trade. The proximity of a trade partner is a determining factor in international trade. This gravity effect goes back to the fact that the closer the economies are from one another, the more likely they will trade among themselves. This concept, which does not exclude geographical, cultural or linguistic proximity, remains the predominant variable. The last decade provides a good illustration, with strong growth in intra-geographical-region trade. The best performances were found in emerging economies, which saw

growth in intra-regional trade of 19% compared with 7% for developed countries. ASEAN-China, Africa and Eastern Europe saw their trade volumes more than quadruple in the last decade. The expansion of regional markets has allowed better performances over larger areas thanks to spill-over effects: for example, Asia-Pacific has become the best-performing large region.

Among globalized sectors, this regionalization of trade can be observed, but factors specific to each sector should also be noted. Sectors can be broken down into two groups according to various factors - positioning within the production chain, industry strategies, location of demand, years of openness to trade: sectors that are highly globalized on the one hand, and sectors in which the regional dimension predominates on the other.

The globalized

► **In the chemicals sector, the share of intra-regional export flows for a given geographical region relative to its total exports to the rest of the world remained relatively stable over the period under study, except for Latin America and Asia-Pacific**

For example, Western European countries exported 66% of their chemicals within Western Europe in 2001 and 67% in 2011. Intra-regional trade of chemicals seems very highly integrated in Europe. This is less the case in North America, where countries exported 42% of their chemical products

■ ■ ■ within the region in 2011. Compared with the well-integrated European zone, the American zone has focused more on heavy local investments with a view to capturing local demand.

In the Asian zone, the already-strong integration in the chemicals sector is increasing. As early as 2001, Asian countries exported 60% of their chemicals production within the region, compared with 67% 10 years later. Of course, this growth in intra-regional exports has benefited from the healthy regional economic growth. Latin America decided to develop its intra-regional trade at the expense of the rest of the world. Indeed, it certainly began at a very low level. But the more-than 20 point difference within 10 years clearly reflects the choice that South America has made to become an “autonomous” trade zone. It also serves as a means to reduce its dependence on the vagaries of inter-continental trade. Taking a closer look at chemicals and separating mineral chemistry from organic chemistry, it becomes apparent that Latin America has focused its intra-regional trade in organic chemistry. There is a link as well with the discovery of enormous hydrocarbon reserves in (off the coast of) Brazil, which boosts other downstream petrochemical industries and, in particular, plastics. On the other hand, Asia is focusing its intra-regional trade on mineral chemistry (fertilizers in particular). Here too there is a link with the regional policies of food self-sufficiency. There has been little progress in intra-regional chemicals trade in Africa.



► Over the period under study, the pharmaceuticals sector has demonstrated an increasing openness to global trade

Export flows of pharmaceuticals from the various

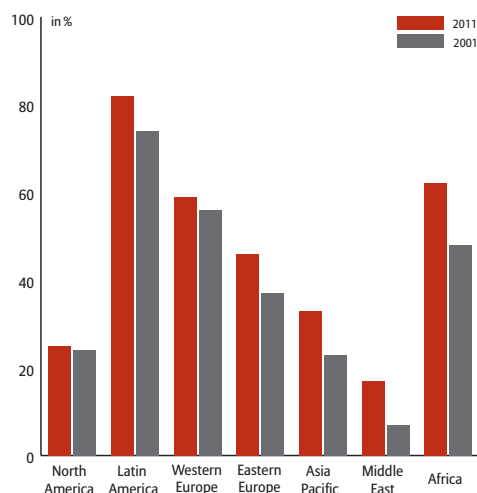
producer countries are no longer limited to neighboring economic zones. The share of intra-regional trade in a given region's total exports has decreased for all regions studied. The most significant decreases have been in Latin America, Asia and Africa.

The European region remains highly integrated, but the share of intra-regional exports compared with those to the rest of the world did decline somewhat over the 2001-2011 period. While North America is much less integrated than Europe, it now depends more than ever on demand in its global markets. The high degree of intra-regional trade integration in the pharmaceuticals sector in Latin America in 2011 (73%), while lower than in 2001 (82%), demonstrates that it already has a local production base. This is ensured by the local subsidiaries of large European and American pharmaceutical companies. Africa presents the particular situation of relying less on the development of its intra-regional markets (62% → 49%) than on those farther afield in Asia. North America's share of intra-regional trade has increased – despite remaining small compared with that of Europe – as has the size of its Asian market.

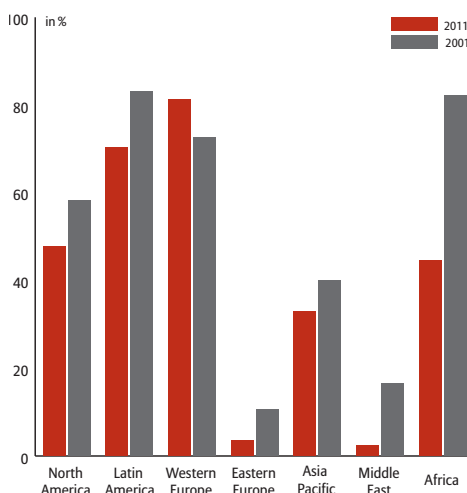
► In the IT equipment sector, geographical trade-off between independence and preference for the extra-regional

Asia earmarks a larger share of its exports of these products to extra-regional trade, in contrast to electronic components. IT equipment contains higher value added, which offers greater margins allowing for transportation costs to be absorbed. In Africa, the export driver is essentially South Africa, which represents two thirds of intra-regional exports. The sharp increase in intra-regional exports in Africa

Intra-regional export share for pharmaceuticals



Intra-regional export share for IT equipment



Sources: ITC, Euler Hermes

Sources: ITC, Euler Hermes

The regionalized

results from a decrease in exports to Western

Europe.



► Actors in the automotive sector establish their production near zones of consumption

Two zones with different profiles can be identified in the automotive sector:

1 • A high concentration of intra-regional exports. This concerns Latin America (supported in particular in Brazil by import tariff barriers); North America and Europe also remain very intra-regional, although between 2001 and 2011 trade was internationalized, from Eastern Europe to Western Europe (as a result of the offshoring of production units). In 2011 66% of total automotive exports from Eastern countries were sent to Western Europe. From Asia to North America: although this trade has decreased in absolute value, Japanese manufacturers having increased production sites in North America to hedge against changes in exchange rates, which have been very unfavorable to the yen compared with the dollar over the past four years. In addition, large investment projects have been penciled in, with three new factories to be built in coming years, although these will be located in Mexico, the new “factory” country for North America in light of its very low labor costs.

2 • A low concentration, from which Africa and the Middle East can be excluded due to the fact they remain minor players in automotive production. Asia has very specific issues: first, the Japanese and Korean economies remain very closed, which limits trade. As for China, its automotive industry is still young and its primary goal is to meet domestic demand. On the other hand, the products offered by

Chinese manufacturers would struggle to satisfy Western consumers, due to the substantial ongoing shortfall in technological progress.

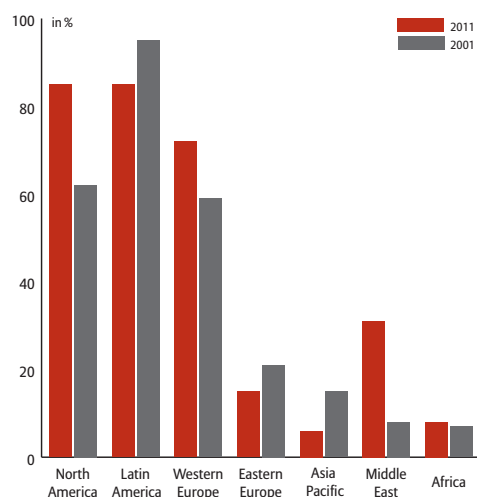
► It is logical in the automotive sector that automotive component manufacturers are located near car manufacturing centers

For component manufacturers, the scenario is globally the same as for car manufacturers, albeit with a greater level of intra-Asian trade for the former than for the latter. Here too, Japanese component manufacturers have not hesitated to start manufacturing in new areas considered “low cost” in the value chain such as Thailand or Malaysia, supplying in particular the Japanese car manufacturing industry. Finally, we also note a high degree of dependence of Eastern European automotive component manufacturers on Western Europe, where 66% of total exports are sent. In the automotive sector - carmakers and component manufacturers - we should no longer speak of Western Europe and Eastern Europe, but rather of a European continent where the “value creating countries” are in Western Europe, but production is gradually being transferred to Eastern Europe, which can be considered as “factory” countries.

► Trade in the agriculture and agri-food sectors remains mostly intra-regional, with around 57% of total global exports in 2011

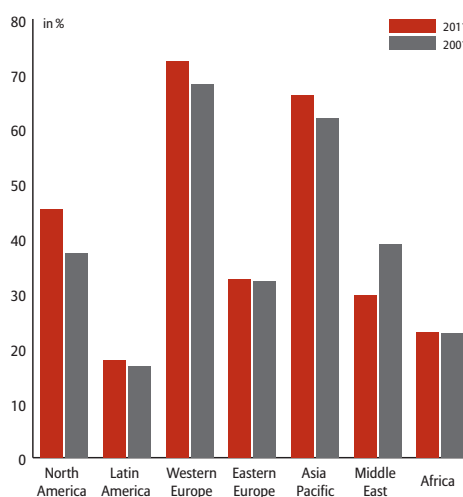
With the exception of the Middle East, all regions are “open” to trade beyond their boundaries, as demonstrated by the decreasing share of intra-regional exports. One of the drivers of this internationalization is the increase in the trade of agricultural products (with minimal processing), increasingly targeted for global export (51% of agricultural exports are extra-regional, compared

Intra-regional export share for automobiles



Sources: ITC, Euler Hermes

Intra-regional export share for agri-food



Sources: ITC, Euler Hermes

■ ■ ■

with only 39% for processed products). Western Europe is a major exporter of agricultural and agri-food products, but this dominance is a result in large part of trade between countries in this geographical zone and involves more processed products (64% of exports) that travel less easily than agricultural commodities. In this schema of predominantly regional trade, Asia finds itself with strong growth in local demand (Chinese in particular) that continues to constitute an important outlet for the region's exporters. Among the large exporters, North and Latin America by contrast have again focused their activities on large-scale exports, taking advantage of growing global demand. South American countries have reinforced their particularly globalized export models, with regional exports remaining very limited, reflecting strong activity in agricultural trade (60% of the region's exports). On a lesser scale, Africa's positioning in agricultural commodities automatically lends itself to a greater "globalization" of the continent's exports.

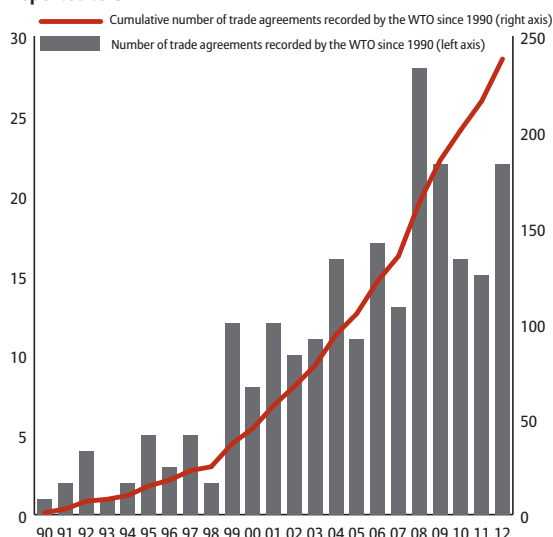
► **In the electronic components sector, export orientation decisions are very heterogeneous**

Asia functions in a closed circuit. 79% of exports from that region's countries are sent to bordering countries. This trend was reinforced during the past decade. In a similar manner, Eastern European, Middle Eastern and African countries increased the share of their trade to neighboring zones. At the same time, intra-zone trade flows remained stable in developed countries (Europe and North America). In Latin America, a decrease in intra-regional exports resulted in the strong increase in exports to Asia, from Costa Rica in particular.



increase in such trade agreements is nonetheless an important feature of the period in question. These agreements take different forms according to the level of integration desired by the participating countries. They have contributed to further opening up markets and, in particular, lowering trade barriers, allowing freer circulation of goods and services. The term "regional" must be clarified: these are not necessarily based on geographical proximity. Intercontinental agreements have also increased (United States and Israel since 1985, the European Union with countries on the other side of the Mediterranean basin and South Africa, and United States with Morocco and Turkey). This was the preferred type of partnership for developed countries over the last decade, insofar as trade

Number of regional trade agreements reported to GATT



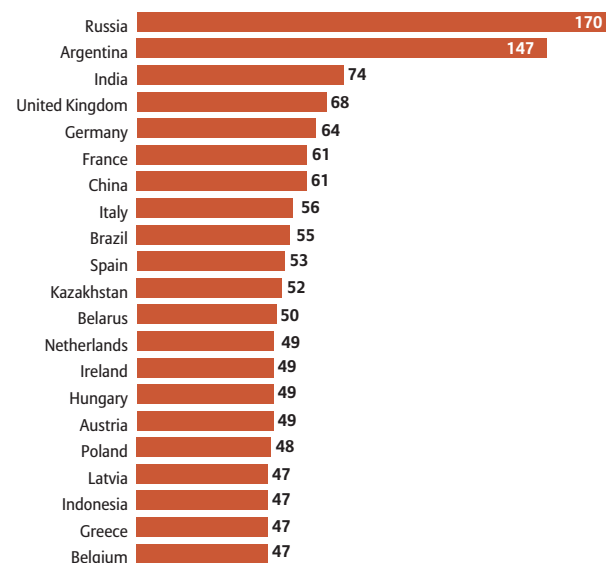
Source: WTO

2.2 Macroeconomic and sectoral limitations: between geo-economy and sectoral history

► **Trade growth and the proliferation of trade agreements have also favored protectionist measures**

The WTO registered more reports of international partnerships in the second half of 2000s alone than in all of the preceding periods combined. And the pace is not slowing, with fifty-three agreements signed since 1 January 2010. Between the 1990s and the 2000s, their number, as reported to the WTO, increased fivefold, with an average of four per year during the 1990s and 15 per year in the 2000s. While the scope of this trend should not be overstated, in particular due to the creation of new countries (i.e. dissolution of the USSR, breakup of Yugoslavia), the

Number of trade barriers introduced since 2008



Source: Center for Economic and Policy Research

agreements had already been concluded with neighboring countries (eurozone, NAFTA). Emerging regions have also negotiated trade agreements. In Asia-Pacific, Eastern Europe and Latin America, the proportion of intra-geographical trade agreements is larger. Nevertheless, this trend is tempered by the growing number of protectionist measures adopted since 2009. The Global Trade Alerts report cites an increase in protectionist measures over the past couple of years: 110 are said to have been introduced between November 2011 and June 2012, including 89 by G20 countries. This highlights the inability of international institutions to sanction countries that resort to such barriers, in particular the G20: while 60% of protectionist measures originated in G20 countries in 2009, this proportion increased to 79% by mid-2012.



► The automotive sector suffers from too many imbalances and particularities

Some countries present a degree of one-way openness (Japan, South Korea) and others are very balanced (Turkey), while Russia presents a large deficit due to an insufficiently modern industry. Whereas Germany, the world's leading exporter, reaches a coverage ratio of 247%, other countries report abnormally high coverage ratios: 744% for South Korea and 787% for Japan, despite being a signatory of a free-trade agreement. Some limitations remain: in addition to the nationalism of some populations, technical barriers, and even products (for example, the Japanese market registers many small vehicles of less than 600 cm³ that only Japanese manufacturers produce because it would not be profitable for a foreign manufacturer to develop such a product for such low sales volumes given that this market is non-existent in other countries). Finally, consumer preferences are heterogeneous, with, for example, American consumers who primarily purchase pick-ups and SUVs which not all manufacturers produce. Financially, it is very costly to address all consumer tastes. Note also the increase in trade barriers from certain countries such as Brazil, which has increased

its tax on imported industrial products for vehicles manufactured outside Mercosur by 30%. This increase, which affects imports of private vehicles as well as heavy-goods vehicles, was originally intended to apply until December 2012 with the aim of sheltering and re-launching the Brazilian industry. The new rates valid since 17 September 2011 vary depending on the type of vehicle from 37% to 43% (vs. 7% and 13% previously). Car manufacturers that use at least 65% of pieces and components produced within Brazil or that contribute in a significant manner to the transfer of technology and to promoting R&D in Brazil are exempt. Another symbolic example is the suspension of the bilateral agreement in the automotive sector between Mexico and Argentina in June 2012. The quotas provided in the new agreement signed on 14 December represent a decrease of around 40% compared with the level of car exports from Mexico to Argentina before this suspension. It is expected to be reinstated on 19 March 2015. Finally, a specific feature of the automotive sector is that it has a very small presence in large-scale exports, except for a

...

Cover ratio in the automotive sector

2011 (Bn USD)	Japan	Korea	Germany	China	Turkey	United States	France	Russia
Import	19	9	102	72.3	17	133.3	64.2	30
Export	148	67	253	37.5	16	119.7	53.1	3
Cover ratio	787%	744%	248%	52%	94%	90%	83%	10%

Source: ITC



few luxury vehicles. Being a volume market with very heavy products and relatively small unit margins, transport and logistics costs quickly become difficult to bear, so that production takes place close to consumption zones.

► The pharmaceuticals sector is facing lower-cost subcontracting and the squeezing of healthcare funding

Over the 2001-2011 period, Asian pharmaceutical exports were increasingly sent to Europe (21% \Rightarrow 31%). Besides the policy of large pharmaceutical companies to manufacture pharmaceuticals locally at lower cost, the effect of Asian health insurance systems – which are not (yet) at the level of those operating within developed countries – should also be kept in mind. The share of exports from Africa to Asia increased from 11% to 30% in 10 years. Last, both North America and Latin America “avoid” exporting to Africa. The trend for the past 10 years in the structure of American pharmaceutical exports has remained stable.



► Exports in the chemicals sector characterized by opportunism

The global chemicals market over the 2001-2011 period displayed different characteristics according to the large geographical zones. The European

region (West and East) as well as the Asian region were already highly integrated in 2001. When this situation did not stay stable, it increased on the upside, such as in late 2011. For example, Western Europe exported 67% of its chemicals production within the European region in 2001. 10 years later, it exported 70%.

Eastern Europe favored its Latin American markets over this period (4% \Rightarrow 8%) at the expense of Africa and the Middle East markets (15% \Rightarrow 6%).

Unlike Europe, North America increased its exports of chemicals to Asia from 19% to 22%. More so than Europe, North America has taken advantage of the competitiveness of its currency. There has been a significant trend of increasing chemicals exports from the Middle East to Europe. The Middle Eastern policy of adding more value to its crude oil production locally has led it to adopt the European strategy of lifting its chemical products upmarket. Its exports of chemicals to Europe increased from 25% to 38% between 2001 and 2011, as opposed to those to Asian emerging countries which have declined from 35% to 29%.

Africa still favors the European market (28% to 32%), with which it maintains old trade relationships for refining crude oil and rubber. African exports to the Middle East, on the other hand, remain minimal. European exports of chemicals to Africa have reached a ceiling (from 5% to 6% of its total exports). This can be explained by the move upmarket by European chemicals products, which are not well adapted to African demand.

Exports of pharmaceuticals by region

as % of total exports	2001	2011
Europe/Asia	10%	12%
Asia/Europe	21%	31%
North America/Asia	12%	15%
Latin America/Europe	3%	9%
Africa/Asia	11%	30%

Source: ITC

Transport costs* of imports in 2000

in %	United States	Brazil
All products	3.3%	10.6%
Food products and live animals	7.7%	9.2%
Beverages and tobacco	5.2%	5.5%
Raw materials	7.5%	7.2%
Mineral fuels, lubricants and related products	4.1%	15.7%
Oils, fats and waxes of animal or vegetable origin	6.6%	6.2%
Chemical products or related products	3.0%	5.3%
Manufactured products (by raw material)	5.1%	6.8%
Machinery and transport equipment	1.9%	4.1%
Various manufactured products	4.9%	5.7%
All other products, NSE	1.0%	8.7%

* Transport tariffs paid as a percentage of the value of transported goods, grouping all exporters by importer and product.

Source: Center for Transport Research

► Agricultural and agri-food exports at the whim of expensive logistics

First, the sector features prominently in national policies, sometimes in terms of self-sufficiency or food security, and always in terms of public health. This can lead to particular regulatory environments which automatically impact the sector and influence trade. In addition to the need for many countries to import agricultural or agri-food goods to meet domestic demand (which constitutes one of the factors behind the development of sectoral trade) and for “competitive” products (a classical supply/demand situation which is no longer strategic), it is interesting to note that logistics costs for the sector are an important parameter. Because of the characteristics of the products transported, these costs are higher because they include more constraints (perishable products requiring appropriate conditions to ensure adherence to norms for human or animal consumption). These characteristics raise an additional structural barrier because exporters must position their offer so as to absorb these additional costs while remaining

sufficiently attractive/competitive in their target markets. As the agriculture and agri-food sectors are so vast and therefore face such a wide range of constraints, this “logistical millstone” is bound to take on different forms and, sometimes, not even exist. Globally however, for an industry that already presents lower value added than other industries on average, it is unlikely that exporters are in a position to further decrease margins to gain access to international markets. Consequently, the rollout of classical strategies of competitive advantage or supply differentiation necessarily plays a major role and is an even greater determinant than in other sectors. This additional requirement, which is not always surmountable for all players because of product ranges, scale or other factors, constitutes an obstacle to growth in the sector’s exports.



► **The electronic components sector is affected by a high degree of industrial specialization and structural pressure on its sales prices**

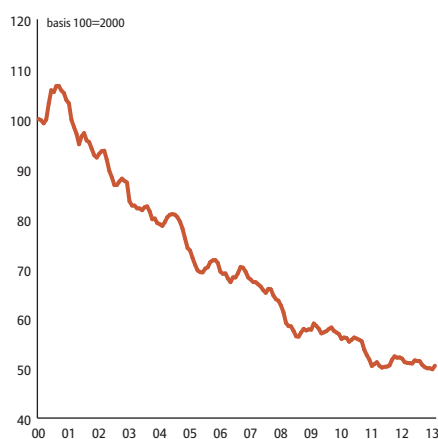
Strengthened by the presence of the major semiconductor foundries, Asia has benefited from the massive outsourcing of production in electronic components. Considering the scale of investment required to achieve profitable production capacity and the strong pressure on prices, this trend seems unlikely to be reversed in the short term. The strategy of offshoring the production of electronic components to Asia is facilitated by the improvement in the quality of the labor force and the division of labor among the countries in the region. In addition, the production of finished products in this same region contributes to limiting trade with countries in other regions. The electronic

components sector is one of the sectors most affected by offshoring, and one of the first to have travelled this path, to the benefit of Japan and then Asia in search of large markets and low labor costs. This success attracted downstream industries, limiting exports of electronic components to the benefit of local production of finished goods. Despite the surge in the use of electronic components, exports of these products in value terms have been penalized by downward pressure on prices. Reversing this offshoring of production would require expensive unilateral policies, especially given that the relocation of research centers to these areas has already begun. The TSMC and UMC semiconductor foundries are located in Taiwan and control over 50% of the market.

► **IT equipment exports are suffering from the effects of constraints on manufacturers in this industry: pricing pressure and innovation**

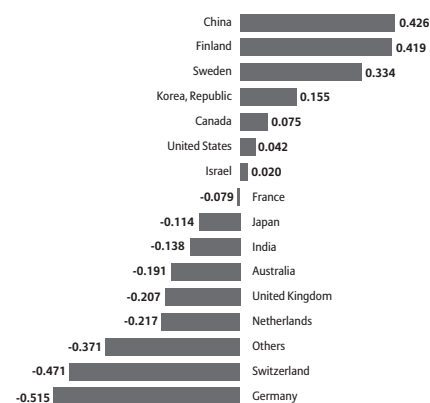
Manufacturers of IT equipment are searching for growth markets with lower production costs. Here again, pressure on the prices of this equipment has contributed to offshoring to low-cost countries. In addition, the increase in demand for IT equipment and its production are concentrated in Asia, in particular due to the relative maturity of the markets in developed countries in the absence of any technological revolution. Hardware manufacturing is conducive to production assembly lines and to the intensive use of labor. Furthermore, China is also a leading source of patent filings. According to the Patent Cooperation Treaty, which ranks countries according to the RSI (Relative Specialization Index) corresponding to a country’s propensity to file patents by domain, China is the world leader in the ICT industry.

Change in price of electronic components in Taiwan



Source: National Statistics, China Republic (Taiwan)

Propension to patent in the ICT sector in 2011 (RSI index)



Source: WIPO, World Intellectual Property Organization



2.3 The shockwave effect, or how difficulties for some become problems for all

The regionalization of trade grew from the increasing interweaving of economies through the expansion of supply chains beyond national borders, and from the increasing internationalization of production processes via networks formed by corporations. This dynamic, aided by declining transaction costs (reduction in tariff barriers and transport costs) and the improved infrastructures and logistics services thanks to technological progress, has allowed for a better integration of the global economy but also increased shock transmission channels. Until the beginning of the decade, the concrete result of this phenomenon was the development of a developed countries-emerging countries relationship (or north-south flows) whereby firms in developed countries outsourced production phases to the nearest emerging countries. Thus, American companies offshored part of their production lines to Latin America, or Western Europe to Eastern Europe. The gradual development of emerging-emerging relationships (south-south), in particular with the strengthening of the Asia-Africa relationship (offshoring, expansion of supply chains for raw materials) represents a major development of the last decade. Given the degree of interconnection involved, the impacts of shocks in one place are more rapidly transmitted to other regions. Thus, shocks in developed economies have considerably affected performances in their respective regions: Latin America experienced a slowdown due to the deterioration in the regional heavyweight, and Eastern Europe continues to be held back by weak

prospects in the eurozone.

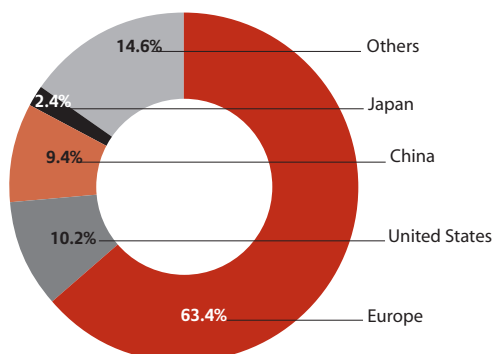
► In the automotive industry, multiple relationships of dependence have taken shape

The automotive sector displays particular characteristics, between “creator” zones and “production” zones that form a link between two continents and therefore a high degree of interconnection. The analysis of exports by destination reveals that Eastern Europe has developed a particularly strong dependence on Western Europe. Export ratios from East to West reached 80% of total exports in 2001 and remained very high at almost 70% in 2011. A fall in the Western European economy therefore affects exports and production in Eastern Europe. This dependence is even more pronounced when we look at exports of automotive component manufacturers. Here again we find this dependence in intra-regional flows due to the development of free trade zones. This is the case with North America, which in our study includes Mexico (NAFTA). 80% of Mexican automotive exports are sent to the United States and Canada, which makes Mexico particularly dependent: registrations account for less than 23% of its production (in units). It has thus become a factory for North America. This is also the case with Germany. Renowned for its large-scale export performance, 65% of its automotive exports are sent to Europe. German car manufacturing therefore depends primarily on European demand.

► The pharmaceuticals sector could find itself in a situation of dependence with regard to generic drugs manufactured in low-cost regions

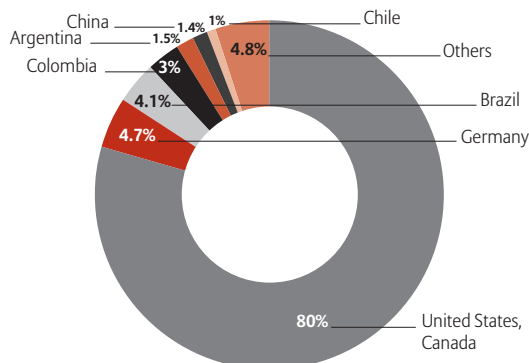
The pharmaceuticals sector depends on the financial soundness of health insurance funding systems in the

Breakdown of German car exports by destination



Source: United Nations Comtrad

Breakdown of Mexican car exports



Source: United Nations Comtrad

The example of the drop in sales price of a drug*

American market	Patented medication (Lipitor)	Generic medication (Atorvastatine)
Manufacturing laboratory	PFIZER	RANBAXY
Laboratory nationality	United States	India
Average sales price	USD 200	USD 40

* between its patented version (Lipitor) and the generic version (Atorvastatine) following the patent expiring at the end of November 2011

Source: Fierce Pharma



low at present, the risk of inter-regional shocks could increase on account of the sector's high dependence on health regulation.

► Oil is the shock transmission channel for all geographical regions in the chemicals sector

An inter-regional shock in this sector could result from geopolitical events in particular in the Middle East, the world's leading oil-producing region, translating into a sudden surge in the price of the most indispensable of commodities, oil, at least for all industries related to organic chemistry, i.e. plastics and petrochemicals. The mineral chemistry for gases and fertilizers would also be affected, although to a lesser extent since it uses oil only as an energy fuel. For example, a scenario involving a blockade of the Strait of Hormuz by Iran, where one fourth of global oil production is freighted, would likely lead to sky-rocketing prices for this essential raw material so precious to industrialized countries. It would wreak havoc both on the supply of their various modes of transport - the largest global consumer of oil - but also industry in general and the residential construction sector. For example, the French chemical sector analyzed the impact on its costs of a surge in oil prices in 2007. It estimated that a USD 10 per barrel increase in price led to additional supply costs of USD 2 billion, with only half of this being recoverable downstream. The European chemicals sector today is in a better position to withstand such a scenario, insofar as successive moves upmarket have allowed it to better uphold the high value added in its products and therefore sales prices. The lessons learned from the 2007-2008 surge in commodity prices have only accelerated this strategy. The American chemicals industry appears more sensitive - or, rather, appeared. Its exposure to this risk has largely been offset by the recent take-off of the shale gas industry. This reduces US dependence on oil as an energy source to operate its factories. Its lesser capacity to increase sales prices in the chemicals sector is offset by its advantage in terms of cheaper supply costs, thereby preserving margins. The Asian chemicals sector seems more exposed to this risk. Positioned at the low end of the product range with high-volume activities and low value added, it is therefore seeking to secure its supplies. To this end, it favors access to and control of energy resources, pending the acquisition of the necessary technological skills to produce higher-end chemicals. In addition to a fresh oil supply shock, a natural disaster cannot be ruled out either. French statistical office Insee has calculated the estimated effects of supply constraints resulting from the Japanese tsunami on the annual output of the chemicals sector in certain geographical regions (see table above). It seems logical that Chinese chemicals

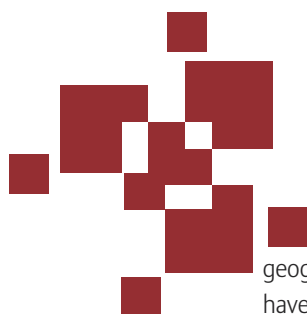
Oil consumption by sector

Year 2011	Oil consumption (in Mtop)	Global market share in %
Transport	2196	62%
Industry	321	9%
Non-energy uses	610	17%
Other (agriculture, residential, public...)	443	12%
Global total	3570	100%

Source: IEA

Estimated impact of the Japanese tsunami on annual production in chemicals and transport equipment

in % point	United States	China	Eurozone
Chemicals	-0.2	-0.5	-0.1
Transport equipment	-0.4	-0.8	-0.2



geographical zones under study. Mature countries have long accounted for the majority of sales of pharmaceuticals. They boast health insurance schemes that adequately price the quality of laboratories' pharmaceuticals innovation. While the risk of inter-regional shocks remains low, the crisis in public health insurance funding in developed countries is starting to jeopardize this relatively stable situation. Drug makers are no longer in a position to demand a sales price for new drugs that compensates their R&D investments. The system of a high price for current medication funding spending on research for tomorrow's medication has fallen ill. The rise of generic drugs is visible in emerging regions as much as in developed ones. Such drugs are sold significantly cheaper than patented medication, and are more often manufactured in low-cost regions, therefore driving down the sales margins of drug makers. Although

■ ■ ■ were the most affected. However, when compared with the effects on other sectors of activity (transport equipment for example), it appears less significant.

► **Export flows in the agriculture and agri-food industries grow in complexity and give rise to strategic relationships between certain regions**

The analysis of export flows leads to a world mapping that is tending to grow increasingly complex, with the strengthening of certain agricultural and agri-food trade routes. The most striking example is the growth in trade in the sector between non-OECD countries (which can be referred to as emerging countries): from only 7% (estimated) of trade in 2001, flows between these emerging players reached 17% in 2011. This growth provides further evidence of the growing integration of these countries in the sectoral “concert” of nations.

► **An analysis of regional markets reveals certain sensitivities of exports**

Unsurprisingly, and as mentioned above, the performance of European and Asian exports is of course highly dependent on intra-regional demand. North America’s markets seem more stable, although a large exposure to Asia exposes them to fluctuations in local economies. Latin America displays the most diversified export profile, with a number of major export markets. This mitigates the risk of one client region running out of steam. For

better or worse, the export markets of Africa and Oceania are clearly anchored to their preferred markets, Europe and Asia, respectively.

► **An analysis of agricultural and agri-food imports shows favored supply links that make these zones highly interdependent and, at the same time, provide clear transmission channels for the slightest event to spread (in the areas of agriculture, climate, health, etc.)**

Among major regions, Europe is the least exposed, as most of its needs can be met from within its borders. Asia, on the other hand, seems more vulnerable because of the globalization of its supply sources, with North America, Europe and Latin America all important suppliers. North American imports originate in large part from South America. One of the characteristics of trade that holds particularly true for agriculture mitigates these imbalances and situations of overdependence: markets are global and prices reflect a global situation, so exposure to fluctuations is practically uniform among all regions and changes in prices are felt globally.

► **The electronic components sector is overexposed to shockwaves**

The magnitude of inter-regional trade amplifies the potential consequences of difficulties in one of the regions. This risk is all the more significant in that the supply of components depends primarily on one geographical zone - Asia. Analyzing the main supply sources by region, we note that Asia is systemically among the two primary sources of supply for each source. The high dependence of North America and Western Europe on Asia is amplified by the dependence of other zones on these two regions, especially insofar as Asia is also their supplier. Difficulties in these regions could also spread to Latin America, Africa and Eastern Europe. The fragility of supply from seismic zones such as Taiwan or California, or from regions susceptible to flooding such as Malaysia, is well known. The Japanese earthquake and all its consequences illustrated the effects of supply disruptions in electronic components. The earthquake and tsunami of March 2011 in Japan disrupted automotive production not only for Japanese manufacturers, but also for large global groups following the disruption in the supply of electronic components (a breakdown in the supply of one particular component interrupted production of a diesel motor in France). The delivery of many models was delayed. The tsunami-related constraints led to estimated shortfalls in production growth of 0.1% percentage point in the United States and Europe and 0.8 pp in China. The risk of contagion is all the greater as electronic components are essential for many

Breakdown of agricultural and agri-food exports by region in 2011

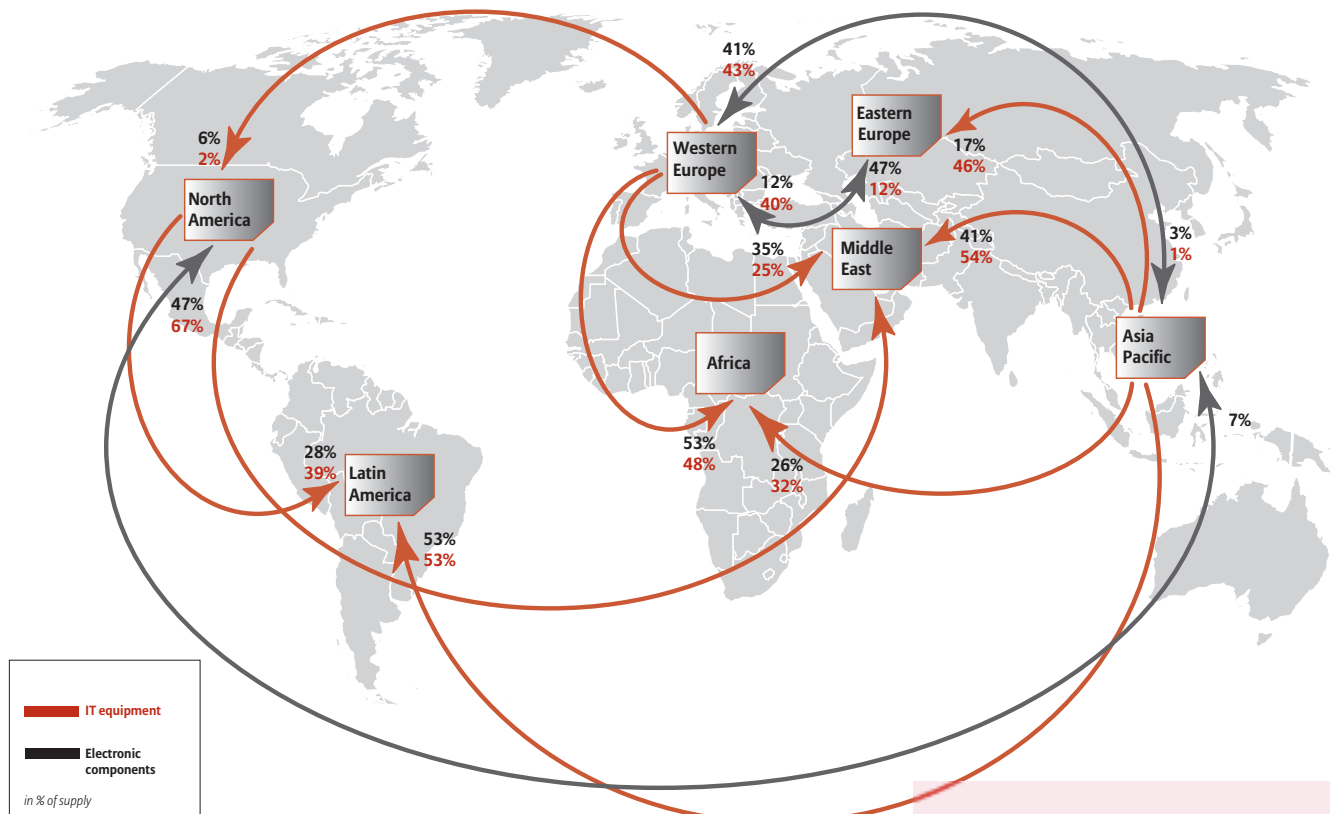
from / to	Europe	North America	South America	Asia	Africa	Oceania
Europe*	80%	4%	1%	10%	4%	1%
North America	8%	37%	16%	34%	4%	1%
Latin America	27%	21%	17%	28%	7%	0%
Asia*	19%	11%	2%	59%	7%	2%
Africa	49%	7%	2%	19%	23%	1%
Oceania	15%	10%	3%	59%	5%	9%

*Different scope to that presented in 2.1

Source: ITC

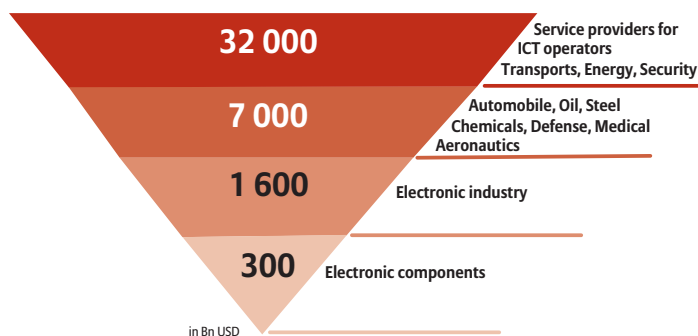
Supply flows of IT equipment

and electronic components



Sources: ITC, Euler Hermes

Electronic components in the world in 2012



Source: Euler Hermes

products and, indirectly, for related services. The importance of electronic components in the economy as a whole can be represented in the pyramid below.

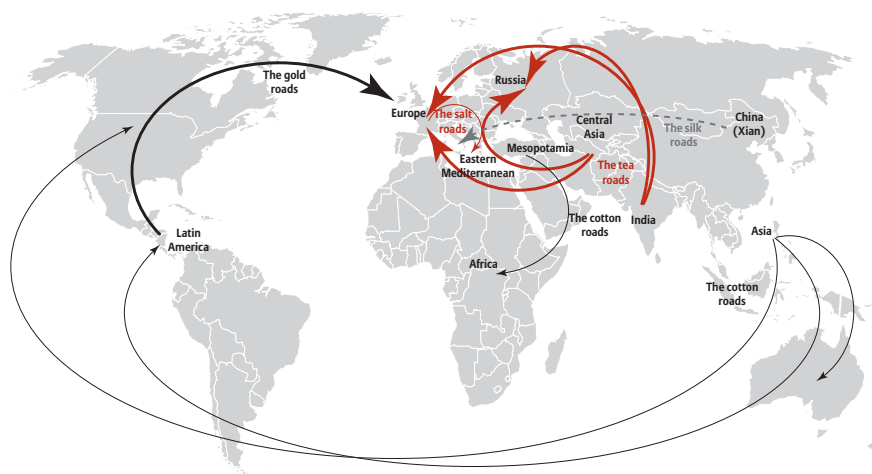
► **In the IT equipment sector there is also a high degree of dependence on Asia, creating the risk that supply problems could spread on a large scale**

Such risks are once again amplified by the dependence of regions supplied by North American and Europe. Difficulties in Asia could have major consequences on all the other regions. Asia itself depends on the healthy functioning of its own region and is particularly exposed to an across-the-board slowdown in the global economy. Growth in international trade translates into the deployment of strategies specific to each region and sector, giving

3.

Seeking demand wherever it may be: The next routes of global trade

Along mythical trade routes



The increasing complexity of trade flows and the stabilization of demand in certain zones lead us to take a closer look at extra-regional flows and national trade flows. This analysis allows us to highlight the potential for additional demand during the next decade, but also to determine the countries the most apt to benefit from this demand, and thus to identify new trade routes and national flows.

3.1 The future actors in global trade: Between potential growth and the role of infrastructure

► A new order?

In the long term, in terms of growth: (1) trade between developed countries is expected to weaken, (2) trade between developed and emerging countries

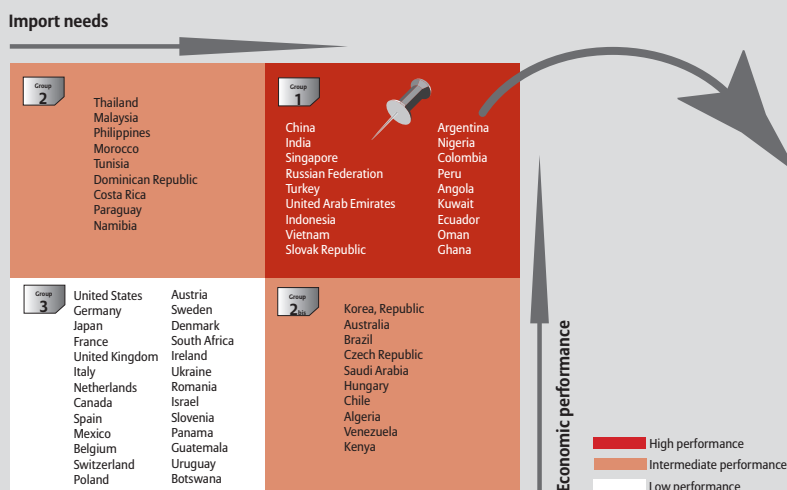
should intensify, (3) trade between emerging zones should experience strong growth. The (new) emerging economies will be the cornerstone of future trade growth. Without a change in paradigm (change in structural policy in developed countries in particular), past trends will persist. Following the collapse in demand in 2009, the speed of recovery in international trade for emerging countries (+25% per year) was 7 percentage points greater in value terms than that of developed countries. The progress in Asia has been confirmed, with an increase of +26% per year, led by China-ASEAN with an increase of +27%.

► The wells of demand

In order to determine the potential for demand, we focus on the main global import countries and

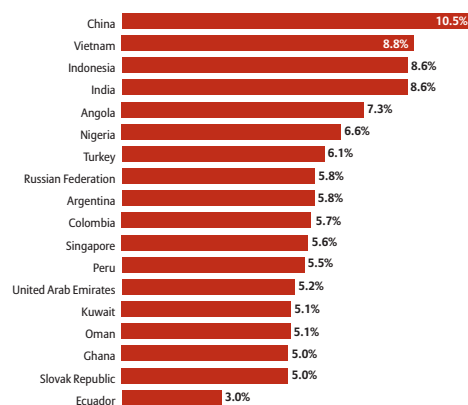
incorporate the major economies from regions without a significant presence on the global market. Certain countries susceptible to extreme risks that may severely hinder the economic engine have been removed from the sample (Syria, for example). An analysis in terms of performance and potential growth calculations reveal clusters based on the percentage of the number of economic unions, intra-zone agreements and extra-zone agreements as well as the dates of their signing (before or after 2000). The most highly ranked countries in terms of economic performance and import prospects represent potential demand for the years to come, with favorable fundamentals in terms of growth and imports given the recent agreements signed.

The must go countries



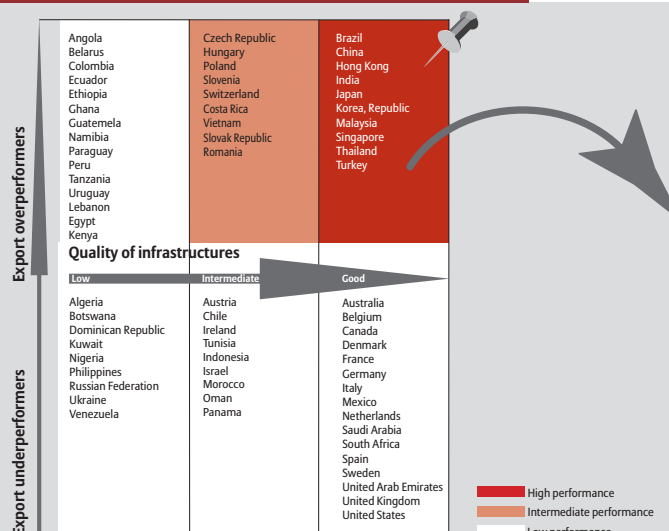
Source: Euler Hermes

Import growth forecast 2012-2015



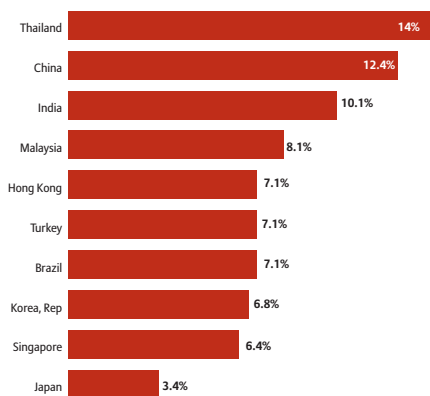
Sources: World Bank, IMF, IHS Global Insight, Euler Hermes forecasts

Top export performers



Source: Euler Hermes

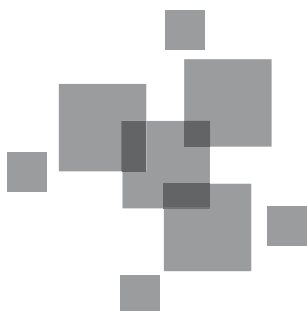
Export growth forecast 2012-2015



Sources: World Bank, IMF, IHS Global Insight, Euler Hermes forecasts

► Pole position

However, countries are not equal in connectedness and logistics. Those that reap the benefits of vigorous global demand are those with adequate infrastructure, which creates favorable export conditions. Countries can be grouped based on their export performance relative to the rest of the world and on the quality of their infrastructure. The assessment of infrastructure quality draws on scores published in the World Bank's Logistics Performance Index and Liner Shipping Connectivity Index. Export performance is quantified based on long-run growth in exports in volume terms. Thus, the best-performing countries according to this second criterion are those with high-quality infrastructure and healthy export performances. Most developed countries fall into the group of countries with favorable infrastructure but underperforming exports. Intermediate countries are those that display favorable export prospects, but whose deficient infrastructure makes them potentially fragile, or those with moderately favorable infrastructure but less favorable export prospects. The group of oil-exporting countries has benefited from a favorable price effect despite an underperformance in terms of export volumes, which makes them vulnerable to a cycle downturn in commodity prices.



3.2 From silk road to tablet road, fertilizer road or gearbox road

► An analysis of additional imports expected for 2015 versus 2012 highlights the regions and the sectors that are likely to receive additional demand

Together, three regions account for close to 85% of additional imports forecasted. Asia is the most sought-after geographical zone, with 45% of such expected imports. In terms of sectors, imports are also concentrated in a few sectors: the chemicals, automotive and agri-food industries together account for over 80% of forecasted new imports. In addition to the large shares forecasted for chemicals and for Asia, sectoral growth is also expected for Latin America, Eastern Europe and Africa. The total amount of additional imports forecasted for 2015 versus 2012 amounts to USD 845 billion, across the sectors included in this study alone.

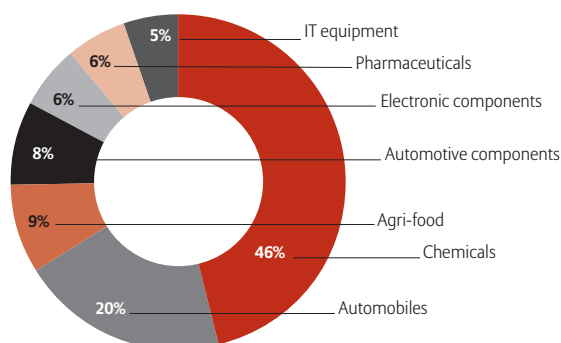
► What sectoral routes are taking shape?

Three very distinct groups of sectors can be defined based on their outlook and potential. First, the 'high potential' sectors such as plastics and fertilizers, both sub-sectors of the chemical industry, and the automotive industry (both components and manufacturers) which have bright futures ahead for demand being on a structural upward trend. Second, there is an 'intermediate potential' cluster which encompasses the agriculture and pharmaceuticals industries. They both have a slightly less positive outlook than the high potential cluster but appear as super resilient since they both cater to the end consumers: households. Last, the 'low potential' group including the electronic components and IT

Breakdown of potential imports by sector

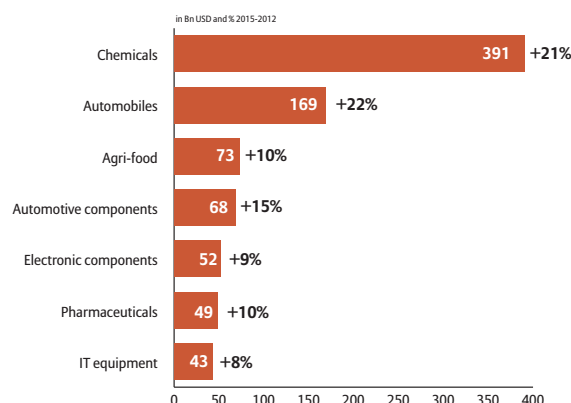
in 2015 compared to 2012

Breakdown of potential imports by sector in 2015 compared to 2012



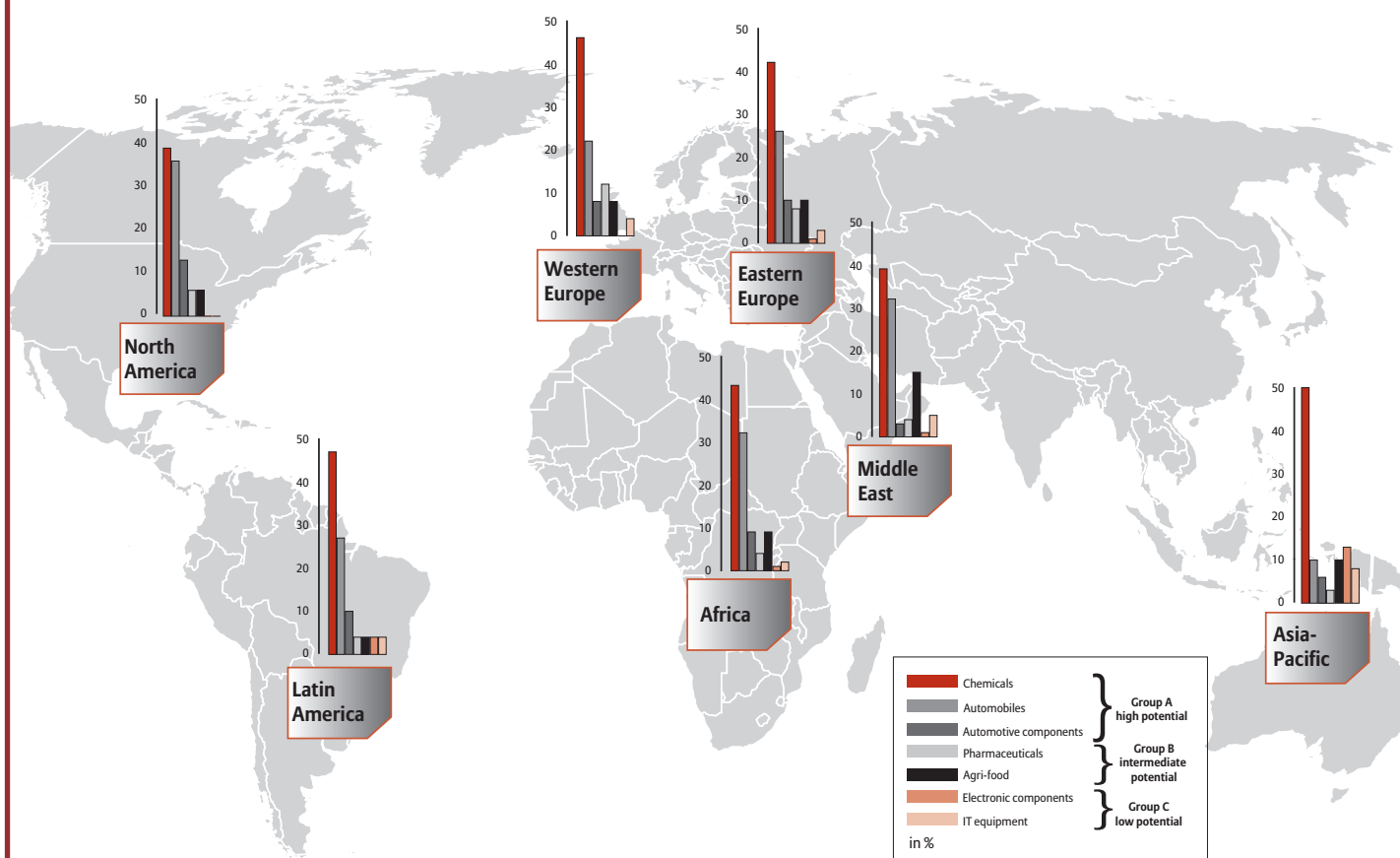
Sources: IHS Global Insight, Euler Hermes forecasts

Growth in import potential by sector in 2015 compared to 2012



Regional demand potentials

by sector between 2012 and 2015



Sources: IHS Global Insight, Euler Hermes forecasts

equipment industries gathers sectors which are less intensive in value added because of the already established Asian supply chains, and important pressures on prices and margins.

in construction and the automotive industry. China has enormous demand given the size of its population, as do India and South Korea. These three countries are keen to vertically integrate this industry into their national petrochemicals companies.

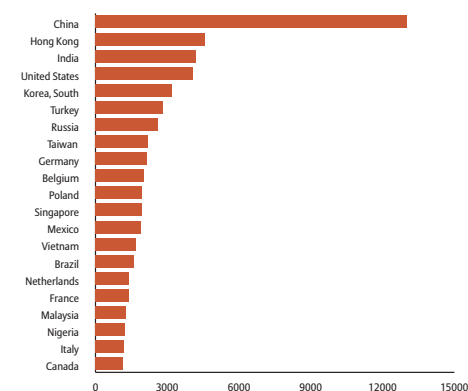
A - High Potentials



► The plastics industry is a strategic industry for emerged countries

The reshuffling of cards among countries has seen growth take off in emerging countries such as Turkey and Poland. On the other hand, Saudi Arabia, for example, has been unable to take advantage of its privileged cheap access to the most essential raw material in the plastics industry – oil. More generally, exports of plastics chemicals favor countries with low production costs, which is also the case of petrochemicals – upstream from plastics – where large volumes and low unit value added converge. The significance of the potential for plastics imports in emerging countries explains the delay that these countries have shown in mastering this chemicals industry. Plastics are used in food packaging as well as

Potential imports of plastics expected in 2015 in comparison with 2012 (in Mn USD)



Sources: IHS Global Insight, Euler Hermes forecasts

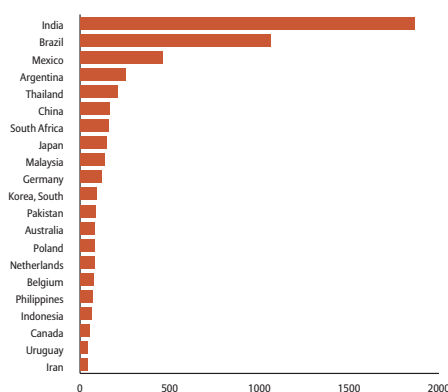
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► Fertilizers: Between potential in mineral reserves and changing diets

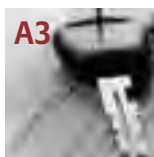
The chemical fertilizer industry has the particularity of not depending on oil, but rather three other raw materials – nitrogen, potassium and phosphate. These raw materials are located in mineral reserves with uneven geographical distribution. 70% of the world's potassium reserves for example are evenly split between Canada and former Soviet countries. If Russia and Belarus are major fertilizer producers, it is because their production costs are low. These two countries can adjust their sales prices to gain international market shares at the expense of Canada. Along with China and Turkey, Russia is a large exporter of nitrogen products. Saudi Arabia is busy trying to catch up from its delay in the phosphate fertilizer industry, at the expense of Morocco, which has historically been a leading producer but with less competitive production costs. Unlike China, India does not have mineral reserves. But it does have the same need to feed its enormous population. On a smaller scale, the situation is similar in Brazil. Their respective agricultural sectors require very large quantities of fertilizer that they massively import from countries that, for the most part, benefit from considerable mineral reserves. Another factor is the changing diet

Potential imports of fertilizers expected in 2015 in comparison with 2012 (in Mn USD)



Sources: IHS Global Insight, Euler Hermes forecasts

of populations in some fertilizer-importing countries. A higher meat-based diet requires more livestock which requires more fertilizer to grow animal feed.



► Automotive component manufacturers are forming new routes between potential growth in imports in 2012-2015 and the industrial strategy of the automotive sector

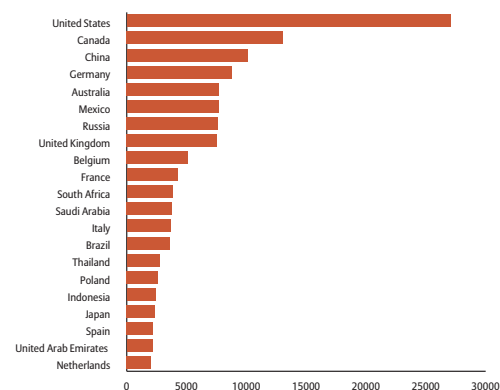
Growth in imports for automotive component manufacturers shows a difference between the locations of car assembly plants and the upstream manufacturing of parts. In this light, Germany's situation is revealing: a historic leader in the automotive industry, it imports a huge number of

components for its vehicles from former Eastern countries in order to reduce costs. Growth in American imports also demonstrates the increasing decoupling between vehicle assembly in zones of consumption and equipment manufacturing in low-cost zones. This is also true in China, which is supplied by Thailand and Malaysia, where labor costs are significantly lower

► Auto manufacturing, potential import growth in 2012-2015 marked by deindustrialization

The potential for imports in 2015 rests largely on the shoulders of countries formerly referred to as industrialized, chief among which the United States and Canada. These two countries will account for over one third of additional imports in 2015. There are two explanations for this phenomenon. First, these two countries are big car "consumers" and, in particular, consumers of expensive vehicles (luxury sedans and large pick-ups). In addition, manufacturers are massively investing in the region's low-cost country, Mexico, which is slowly becoming a factory for North America. China, whose middle class continues to grow, also offers strong prospects for imports, in particular for higher-end vehicles. Imports in Europe from former Eastern-bloc countries in particular will continue to grow, following the same model of manufacturing near consumption areas, albeit in low-cost countries. By contrast, Japan continues offer few prospects for imports, remaining with its rather closed economic model to the benefit of its national industry.

Potential imports of automobiles expected in 2015 in comparison with 2012 (in Mn USD)



Sources: IHS Global Insight, Euler Hermes forecasts

B - Intermediate potentials



► Agriculture: Enduring dynamics in the agriculture and agri-food sectors

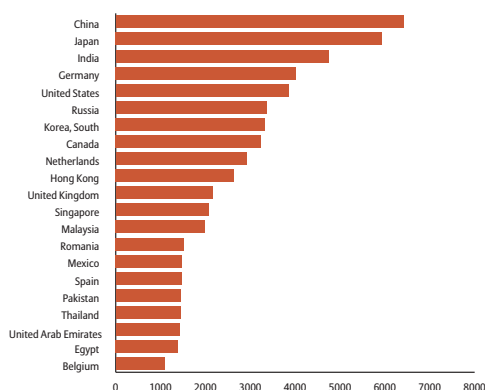
It must be noted that these solid import prospects incorporate expected increases in the agricultural commodity prices (which are also priced into the value of processed products), which themselves reflect more strained market conditions. China will remain a major market for agricultural and agri-food producers, since the country is in the midst of very favorable changes to the development of sectoral trade which are materializing in significant figures in light of the size of the market (along with the ramping-up of local production): ongoing population growth, a change in diets (with growth in meat-based products in particular) and, strongly correlated, the emergence of a middle class with growing purchasing power, and, in more general terms, more robust economic growth. To various degrees, these same dynamics can be found in India (with the particular case of religious bans), the United States, Russia and South Korea. Japan will continue to import massively in order to meet needs not met by insufficient domestic resources. The substantial German imports expected in 2015 should be seen in light of Germany's position as the European heavyweight. Without going into detailed figures, it is interesting to take a closer look at the example of the Northern European pork industry that has formed around Germany: large increase in imports of live animals (piglets) from Denmark and the Netherlands in Germany and, in parallel, sharp increase in exports of pork meat and processed products. This increase in trade reflects the country's national specialization in this sector.

► Pharmaceuticals: Demographic changes fuel growing demand for medication

The pharmaceuticals industry is benefiting from an endogenous growth factor that reflects the demographics and relative aging of populations in developed countries. Medication needs in volume terms is growing strongly among emerging country populations. However, the weak purchasing of the latter power is dampening growth in value terms. Pharmaceutical companies are already largely internationalized. In addition, American pharmaceutical companies supply their European customers from their presence in Ireland and Switzerland, where tax conditions are particularly favorable. The scenario is the same in Poland for European pharmaceutical companies that supply Eastern Europe. While Israel is home to the world's leading – and fast-growing – generic drugs producer, India dominates the scene for manufacturers of medication whose patents have fallen into the public domain. The case of Japan is unique. Long closed off to all trade in the pharmaceuticals sector, recently it has started to internationalize with its nearest zone of influence, Asia. The greatest import potential in pharmaceuticals may surprise, located in developed countries such as Germany and Japan. But they are also the countries where population ageing is the fastest. Many pharmaceutical companies are also able to choose to produce the active ingredients for their leading drugs in countries with lower costs. These are then re-imported to their German or Belgian factories, where they are prepared to be administered to patients in pill, tablet or injectable form.

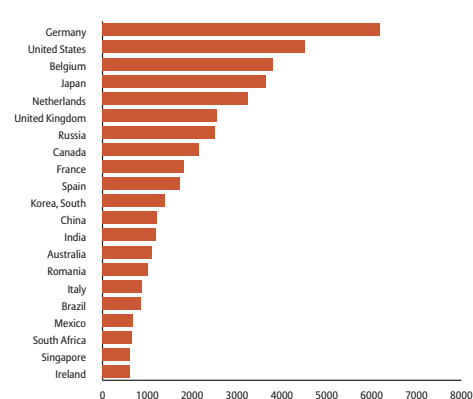
■ ■ ■

Potential imports of agri-food stuffs expected in 2015 in comparison with 2012 (in Mn USD)



Sources: IHS Global Insight, Euler Hermes forecasts

Potential imports of pharmaceuticals drugs expected in 2015 in comparison with 2012 (in Mn USD)



Sources: IHS Global Insight, Euler Hermes forecasts



C - Low potentials

► **Electronic components: Enduring Chinese dominance in the electronic components industry**

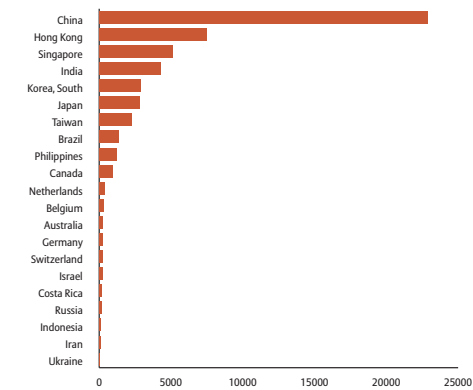
Over the past decade, China has become a major actor in the electronic components sector, generating import flows with neighboring countries. Yet new routes are also emerging. German imports of electronic components, in the form of electronics and in more general terms in any product containing electronic components, are increasingly being supplied by Romania and, to a lesser extent, by the Czech Republic and Hungary. In Africa, Morocco and Tunisia are the countries that supply the most electronic components out of the continent (to France, Italy and Spain). China will continue to suck up imports of electronic components, especially considering these are particularly important to the industrial strategy being implemented, namely manufacturing more sophisticated products with greater value added.

► **IT equipment: No change in production and trade hubs in the IT equipment sector**

Asian countries remain eager for IT equipment to meet domestic demand as well as to organize production in the region, but in this respect they compete with other countries, such as the Netherlands, which serves as a hub for European

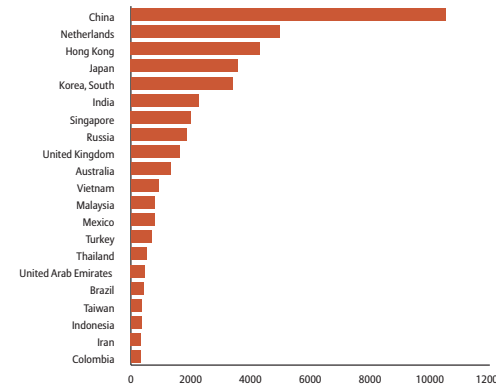
imports and is likely to retain this status. Russia will be unable to meet domestic demand for IT equipment in the short term, in particular for its industrial needs, and this shortfall will in all likelihood be filled by imports. Hong Kong is in a position of dependence with regard to China. Even more so, Thailand serves as a factory country for the trio formed by China, Hong Kong and the United States, while other routes are developing towards Malaysia, the Czech Republic, India and Poland. There is sustained average annual growth in IT equipment sourced from the Czech Republic. Geographical location, however, tilts the scales to the benefit of Germany, Great Britain, France and the Netherlands. As for Africa, it should be noted that while South Africa is the continent's largest producer of hardware, its edge is being challenged by Kenya, which is growing at a faster rate. South Africa's major partners are found throughout the African continent, whereas Kenya relies primarily on Tanzania and Uganda, which are all three members of the EAC. ■

Potential imports of electronic components expected in 2015 in comparison with 2012 (in Mn USD)



Sources: IHS Global Insight, Euler Hermes forecasts

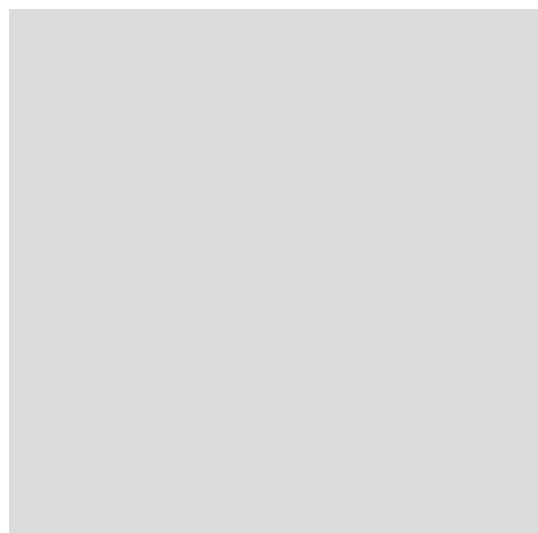
Potential imports of IT equipment in 2015 in comparison with 2012 (in Mn USD)



Sources: IHS Global Insight, Euler Hermes forecasts

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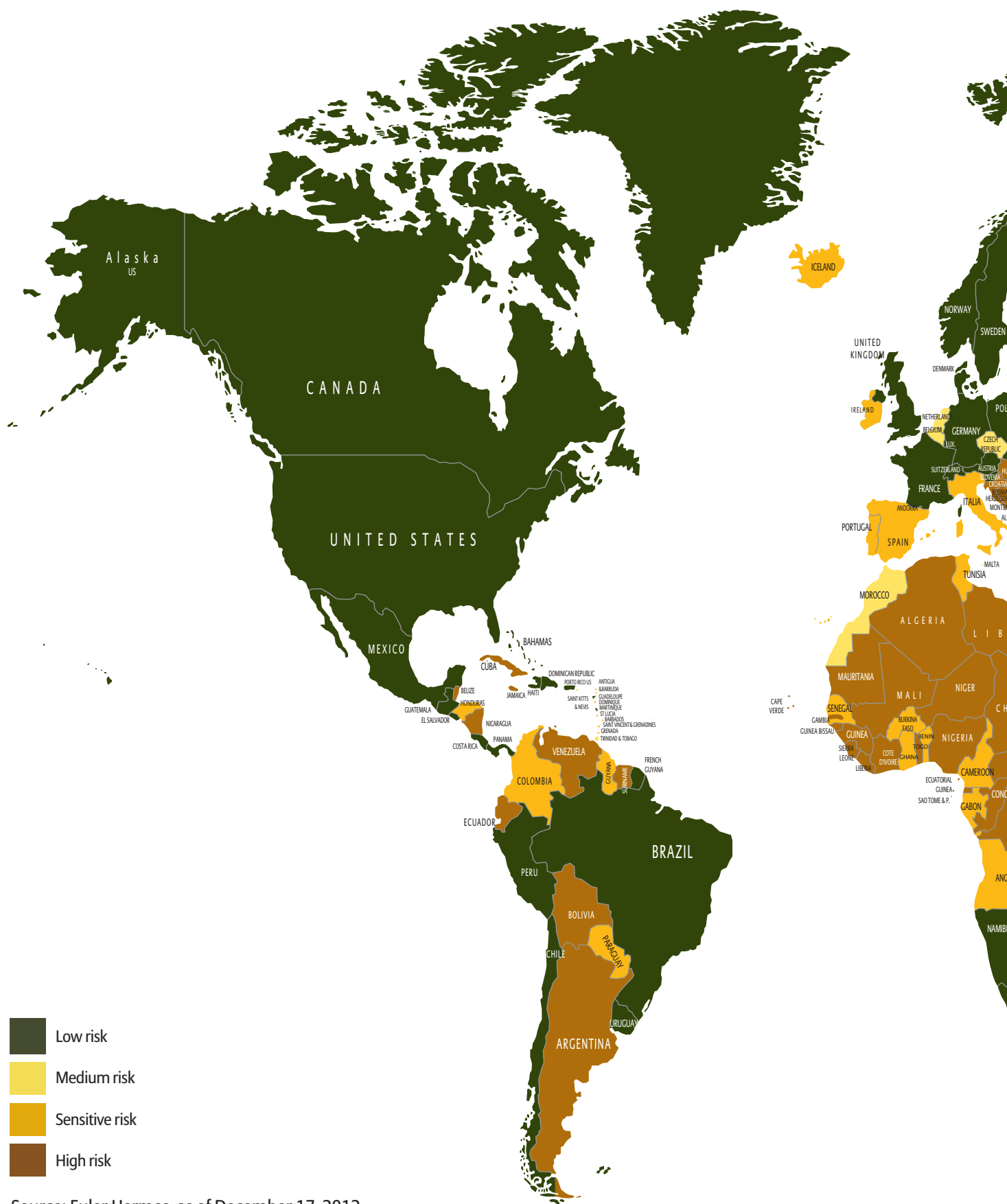
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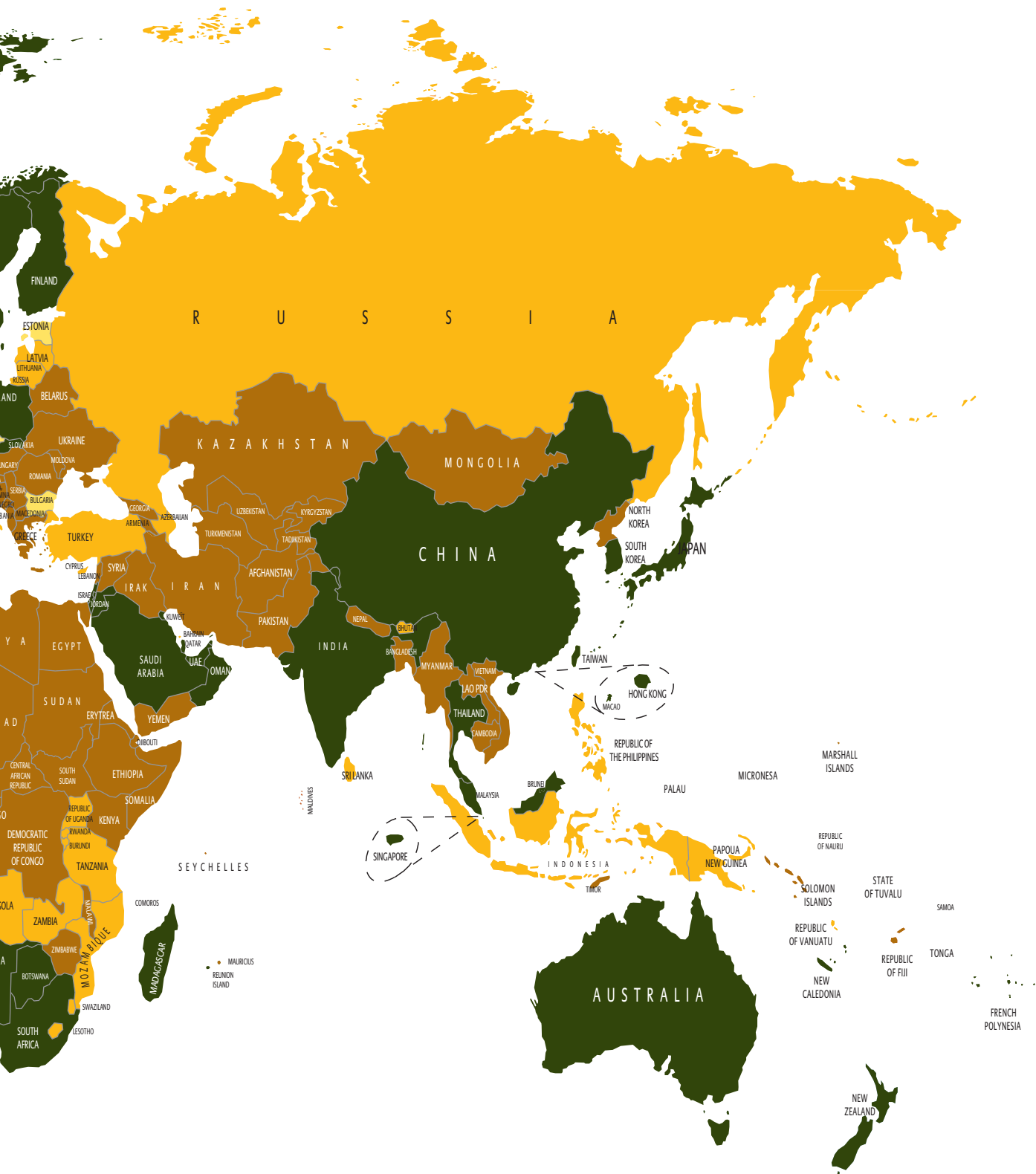
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Source: Euler Hermes, as of December 17, 2012



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Holding company: Euler Hermes SA
1, Place des Saisons
92048 Paris La Défense CEDEX
France
Tel.: + 33 (0) 1 84 11 50 50
Fax: + 33 (0) 1 84 11 50 17
www.eulerhermes.com

► Argentina

Euler Hermes Argentina S.A.
Av. Corrientes 299 - 2° Piso
C1043AAC CABA Buenos Aires
Tel.: +54 11 4320 7157/77

► Australia

Euler Hermes Australia Pty Ltd.
Level 9, Forecourt Building
2 Market Street
Sydney, NSW 2000
Tel.: + 612 8258 5108

► Austria

Prisma Kreditversicherungs-AG
Himmelpfortgasse 29
1010 Vienna
Tel.: + 43 (0) 5 01 02-0

Euler Hermes Collections GmbH,
Zweigniederlassung Österreich
Handelskai 388
1020 Vienna
Tel.: + 43 1 90 81 771

► Bahrain

Please contact United Arab Emirates

► Belgium

Euler Hermes Europe S.A. (NV)
Avenue des Arts - Kunstlaan 56
1000 Brussels
Tel.: + 32 2 289 3111

► Brazil

Euler Hermes Seguros de Crédito SA
Avenida paulista, 2.421 - 3° andar
Jardim Paulista
São Paulo / SP 01311-300
Tel.: + 55 11 3065 2260

► Canada

Euler Hermes Services Canada Inc.
1155 René-Lévesque Blvd West
Suite 1702
Montréal (Québec) H3B 3Z7
Tel.: + 1 514 876 9656

► Chile

Euler Hermes Seguro de
Crédito SA
Ave. Presidente Kennedy 5735
Of. 801, Torre Poniente
Las Condes
Santiago
Tel.: + 56 2 246 1786

► China

Euler Hermes Consulting
(Shanghai) Co., Ltd
Unit 2103, Taiping Finance Tower,
N°488 Middle Yincheng Road, Pudong
New Area, Shanghai, 200120
Tel.: + 86 21 6030 5900

► Colombia

Euler Hermes Colombia
Calle 72 6-44 Piso 3
Edificio APA
Bogota
Tel.: + 571 326 4640

► Czech Republic

Euler Hermes Europe SA
organizacni slozka
Molákova 576/11
186 00 Prague 8
Tel.: + 420 266 109 511

► Denmark

Euler Hermes Denmark
filial of Euler Hermes Europe SA, Belgium
Amerika Plads 19
2100 Copenhagen O
Tel.: + 45 88 33 3388

► Estonia

Please contact Finland

► Finland

Euler Hermes Europe SA
Suomen sivuliike
Mannerheimintie 105
00280 Helsinki
Tel.: + 358 10 8 50 8500

► France

Euler Hermes France SA
Euler Hermes Collection
Euler Hermes World Agency
1, place des Saisons
F-92048 Paris la Défense Cedex
Tel.: + 33 1 84 11 50 50

► Germany

Euler Hermes Deutschland AG
Friedensallee 254
22763 Hamburg
Tel.: + 49 40 8834 0

Federal Export Credit Guarantees
Friedensallee 254
22763 Hamburg
Tel.: + 49 40 8834 9000

Euler Hermes Collections GmbH
Zeppelinstr. 48
14471 Postdam
Tel.: + 49 331 27890-000

► Greece

Euler Hermes Emporiki SA
16 Laodikias Street &
1-3 Nymfeou Street
115 28 Athens
Tel.: + 30 210 69 00 000

► Hong Kong

Euler Hermes Hong Kong Services Ltd.
Suites 403-11, 4/F
Cityplaza 4
12 Taikoo Wan Road
Island East
Hong-Kong
Tel.: + 852 2867 0061

► Hungary

Euler Hermes Europe SA
Magyarországi Fioktelepe
Kiscelli u. 104
1037 Budapest
Tel.: + 36 1 453 9000

► India

Euler Hermes India Pvt. Ltd.
4th Floor, Voltas House
23, J N Heredia Marg
Ballard Estate
Mumbai 400 001
Tel.: + 91 22 6623 2525

► Indonesia

PT Asuransi Allianz Utama Indonesia
Summitmas II, Building, 9th floor
Jl. Jenderal Sudirman Kav 61-62
Jakarta 12190
Tel.: + 62 21 252 2470 ext 6100

► Ireland

Euler Hermes Ireland
Allianz House
Elm Park
Merriem Road
Dublin 4
Tel.: +353 (0)1 518 7900

► Israel

ICIC,
2, Shenkar street
68010 Tel Aviv
Tel.: + 97 23 796 2444

► Italy

Euler Hermes Europe S.A.
Rappresentanza per l'Italia
Via Raffaello Matarazzo, 19
00139 Rome
Tel.: + 39 06 87001

► Japan

Euler Hermes Deutschland AG
Japan Branch
Kyobashi Nisshoku Bldg. 7F
8-7 Kyobashi, 1-chome,
Chuo-Ku
Tokyo 104 0031
Tel.: + 81 3 3538 5403

► Kuwait

Please contact United Arab Emirates

► Latvia

Please contact Poland

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Please contact Poland

► Malaysia

Euler Hermes Singapore Services Pte Ltd.
Malaysia Branch
Suite 3A_13A Level 13A, Block 3A
Plaza Sentral, Jalan Sentral
Jalan Stesen Sentral 5
50470 Kuala Lumpur
Tel.: +603 2264 8556 (or 8599)

► Mexico

Euler Hermes Seguro de Crédito S.A.
Blvd. Manuel Avila Camacho #164,
8° piso
Col. Lomas de Barrilaco
Deleg. Miguel Hidalgo
Mexico DF CP 11010
Tel.: + 52 55 5201 7900

► **Morocco**

Euler Hermes Acmar
37, bd Abdelatif Ben Kaddour
20050 Casablanca
Tel.: +212 5 2279 0330

► **The Netherlands**

Euler Hermes Nederland NV
Pettelaarpark 20
5216 PD's-Hertogenbosch
Tel.: +31 73 688 9999

► **New Zealand**

Euler Hermes New Zealand Ltd
Level 1, 152 Fanshawe Street
Auckland 1010
Tel.: +64 9 354 2995

► **Norway**

Euler Hermes Norge
Holbergsgate 21
P.O. Box 6875
St. Olavs Plass
0130 Oslo
Tel.: +47 23 25 6000

► **Oman**

Please contact Poland Arab Emirates

► **Philippines**

Please contact Singapore

► **Poland**

Towarzystwo Ubezpieczeń Euler Hermes S.A.
ul. Domaniewska 50 B
02-672 Warsaw
Tel.: +48 22 363 6363

► **Portugal**

COSEC - Companhia de Seguro
de Créditos, S.A.
Av. da República, nº 58
1069-057 Lisbon
Tel.: +351 21 791 3700

► **Qatar**

Please contact United Arab Emirates

► **Romania**

Euler Hermes Europe S.A.Bruxelles
Sucursala Bucuresti
Str. Petru Maior, nr.6,
Sector 1
011264, Bucarest
Tel.: +40 21 302 03 00

► **Russia**

Euler Hermes Credit Management OOO
Office C08, 4-th Dobryninskiy per.,8
Moscow, 119049
Tel.: +7 495 98128 33 ext 4000

► **Saudi Arabia**

Please contact United Arab Emirates

► **Singapore**

Euler Hermes Singapore Services Pte Ltd
3 Temasek Avenue
03-02 Centennial Tower
Singapore 039190
Tel.: +65 6297 8802

► **Slovakia**

Euler Hermes Europe S.A, pobočka
poist'ovne z ineho clenkeho statu
Plynárenská 7/A
821 09 Bratislava
Tel.: +421 2582 80911

► **South Africa**

Please contact Italy

► **South Korea**

Euler Hermes Hong Kong Services
Korea Liaison Office
Room 1411, 14th Floor, Sayong
Platinum Building
156, Cheokseon-dong
Chongro-ku
Seoul 110 052
Tel.: +82 2 733 8813

► **Spain**

Euler Hermes Crédito,
Sucursal en España
de Euler Hermes France-S.A.
Paseo de la Castellana, 95
Planta 14
Edificio Torre Europa
28046 Madrid
Tel.: +34 91 417 77 67

► **Sri Lanka**

Please contact Singapore

► **Sweden**

Euler Hermes Sverige filial
KlaraBergsviadukten 90
P.O. Box 729
101 64 Stockholm
Tel.: +46 8 55 51 36 00

► **Switzerland**

Euler Hermes Deutschland AG,
Zweigniederlassung Zürich
Tödi strasse 65
8002 Zürich
Tel.: +41 44 283 6 5 65

Euler Hermes Reinsurance
Tödi strasse 65
8002 Zürich
Tel.: +41 44 283 65 85

► **Taiwan**

Please contact Hong Kong

► **Thailand**

Allianz C.P. General Insurance Co, Ltd
323 United Center Building
30th Floor
Silom Road
Bangrak, Bangkok 10500
Tel.: +66 2638 9000

► **Tunisia**

Please contact Italy

► **Turkey**

Euler Hermes Sigorta A.s
Maya Akar enter
Buyukdere Cad. No:100k:7,
34394, Esentepe/Istanbul
Tel.: +90 212 290 76 10

► **United Arab Emirates**

Euler Hermes
c/o Alliance Insurance (PSC)
Warba Center, 4th Floor
Office 405
PO Box 183957
Dubai
Tel.: +971 4 211 6005

► **United Kingdom**

Euler Hermes UK
1 Canada Square
London E14 5DX
Tel.: +44 20 7512 9333

► **United States**

Euler Hermes North America
Insurance Company
800 Red Brook Boulevard
Owings Mills, MD 21117
Tel.: +1 410 753 0753

Euler Hermes UMA Inc.
(trade debt collection)
600 South 7th Street
Louisville, KY 40201-1672
Tel.: +1 800 237 9386

► **Vietnam**

Please contact Singapore

Implantations

Holding company: Euler Hermes SA
1, Place des Saisons
92048 Paris La Défense CEDEX
France
Tel.: +33 (0) 1 84 11 50 50
Fax: +33 (0) 1 84 11 50 17
www.eulerhermes.com

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1, place des Saisons 92048 Paris La Défense Cédex
E-mail: research@eulerhermes.com – Tel.: +33 (0) 1 84 11 50 46

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