



China-EU relations: Gearing up for growth

July 31, 2014

Authors*

Syetarn Hansakul
+65 6423-8057
syetarn.hansakul@db.com

Hannah Levinger
+49 69 910-31753
hannah.levinger@db.com

Editor

Maria Laura Lanzeni

Deutsche Bank AG
Deutsche Bank Research
Frankfurt am Main
Germany
E-mail: marketing.dbr@db.com
Fax: +49 69 910-31877

www.dbresearch.com

DB Research Management
Ralf Hoffmann

The recently announced plans for a free trade agreement between China and the EU are momentous. China is the EU's No. 1 supplier of goods and its third-largest export market. In turn, the EU is China's largest trading partner.

Going by current trends, EU-China annual bilateral trade could grow close to 1.5 times in a decade's time, to EUR 660 bn. Germany is particularly well placed to benefit from an intensification of bilateral trade, as China's largest trading partner in the EU. German exports to China could grow by 60% in the next decade, and if the FTA comes into being exports could double.

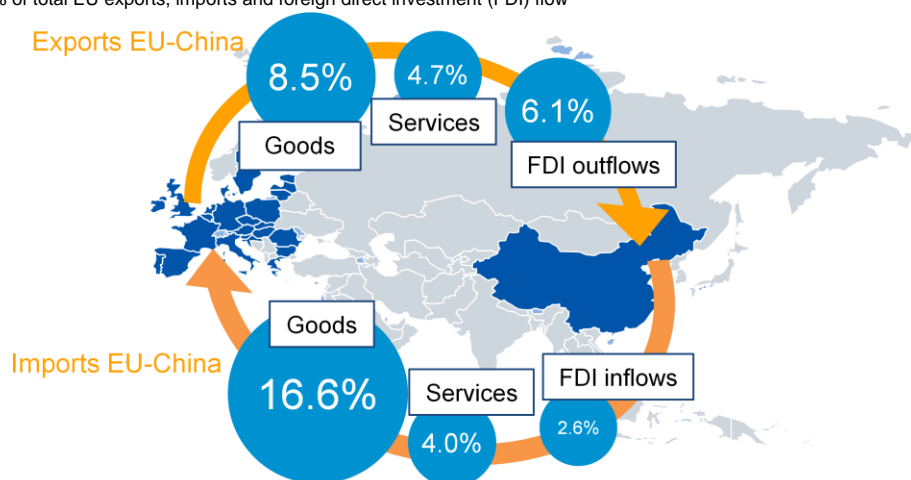
Not only goods but also services trade has large potential to grow. Transport and trade-related services are bound to grow significantly as China's integration into the world economy continues. Moreover, Chinese tourists have been flocking to Europe in ever greater numbers, giving a boost to related business.

FDI may become the next engine of the China-EU partnership. While the EU is the largest investor in China, Chinese direct investment accounts for less than 1% of the EU's total inbound FDI stock. New dynamism is expected from a bilateral investment agreement currently in negotiation and from the rising interest of Chinese investors in European companies, as shown by our compilation of Chinese M&A deals vis-à-vis the EU and Germany.

Plenty of headroom exists for greater adoption of the use of RMB in Europe. Financial infrastructure recently put in place makes it possible to foresee RMB settlement increase to as much as 40% of EU-China bilateral trade by 2024 from less than 10% currently.

EU-China trade and investment ties

% of total EU exports, imports and foreign direct investment (FDI) flow



Note: Trade data as of 2013; FDI data as of 2012.

Sources: Deutsche Bank Research, Eurostat

* The authors wish to thank Ambika Sharma for her valuable research assistance.

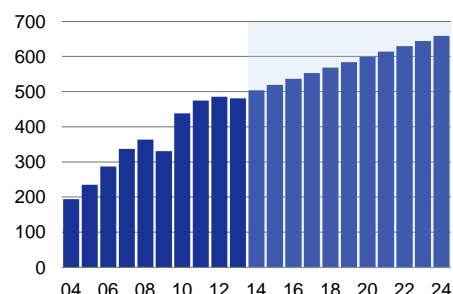


China-EU relations: Gearing up for growth

EU-China bilateral trade trend

2

Goods and services trade value, EUR bn

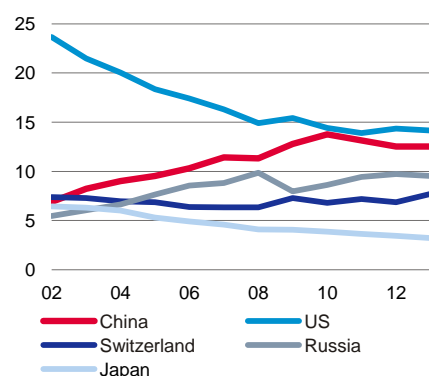


Source: Deutsche Bank Research

China close to top position in EU trade

3

% of total extra-EU trade

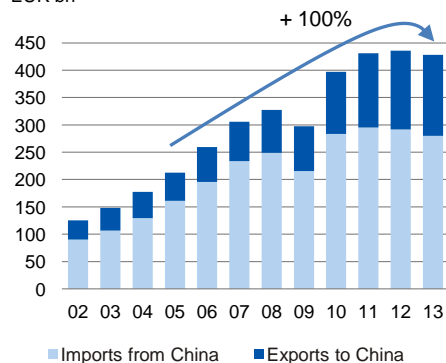


Sources: Eurostat, Deutsche Bank Research

EU-China trade doubled in 2005 - 2013

4

EUR bn



Sources: Eurostat, Deutsche Bank Research

China and the European Union: A strategic partnership

During Chinese President Xi Jinping's visit to Europe in late March, the EU committed to opening bilateral talks on a free trade agreement (FTA). A formal start of negotiations depends on a successful outcome of current talks on a bilateral investment agreement, in the framework of the EU-China 2020 Strategic Agenda agreed upon in November 2013.¹ In particular, European firms are pushing to improve business practices which they see as putting them at a disadvantage in obtaining local funding and local contracts in China.

A free trade agreement involves, as mentioned in a joint declaration between Germany and China, "a longer term perspective",² and, while there is no specific timetable yet, the mere declaration of intent is a significant step.

Bilateral trade between the EU and China already exceeds EUR 1 bn a day. Simply extrapolating the trend of the past decade suggests that the value of bilateral trade in goods and services could reach EUR 660 bn in a decade's time (chart 2).

This note will first analyse recent trends in EU-China trade in goods, then take a look at trade in services followed by an examination of the prospects for RMB business in the EU. The final section dwells on bilateral investment relations, including a detailed compilation of Chinese M&A deals vis-à-vis the EU and Germany.

EU-China's trade in goods – centre of gravity shifting eastward

EU trade with extra-EU partners has become more China-centric, at the expense of traditional partners such as the US and Japan (chart 3). Trade in goods between China and the EU-27³ reached EUR 428 bn in 2013, almost double the value recorded in 2005 (chart 4).

China is now the number one source of merchandise imports into the EU, with a share of 16.6% of imports from non-EU markets. China is also the EU's third largest export market after the US and Switzerland with a share of 8.5% of total exports. Seen from China's perspective, the EU has been its biggest trading partner for ten years in a row (ranking first as a source of imports and second as a market for exports).

The EU maintains a merchandise trade deficit with China – a fact which has often been a bone of contention in bilateral relations. However, the deficit has been shrinking since 2010 to EUR 132 bn in 2013 or 1% of the EU's GDP (chart 5). The reversal mostly reflects a contraction in EU imports while exports to China continued growing.

Germany is China's largest EU trading partner

Germany is China's largest trading partner in the EU by far. In 2013, bilateral trade reached EUR 138.6 bn – more than the next three countries (the UK, France and the Netherlands) combined. Germany accounted for 45% of the EU's exports to China and 28% of the EU's imports from China (charts 6 and 7).

China accounted for 14% of German extra-EU exports and 18% of German extra-EU imports in 2013. China is also a key export market for Finland,

¹ European Commission. EU and China begin investment talks. Press Release, 20 Jan 2014.

² Federal Government. Joint Declaration between Germany and China. 28 Mar 2014.

³ Data used in this study are usually up to end-2013, ahead of Croatia's accession, thus the notion of European Union in this report generally refers to the EU-27 unless otherwise stated.

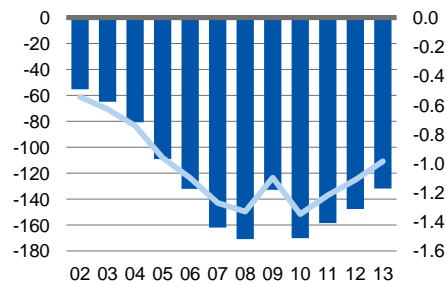


China-EU relations: Gearing up for growth

EU trade deficit with China narrowing

5

EUR bn (left), % of EU GDP (right)

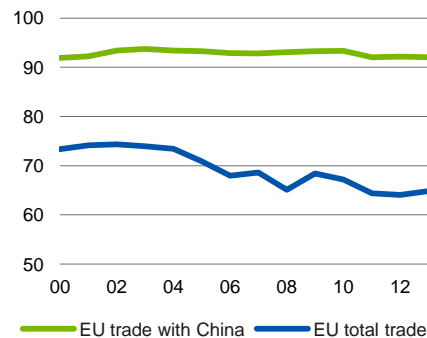


Sources: Eurostat, Deutsche Bank Research

Manufacturers dominate China-EU trade

8

Share of manufacturing, %

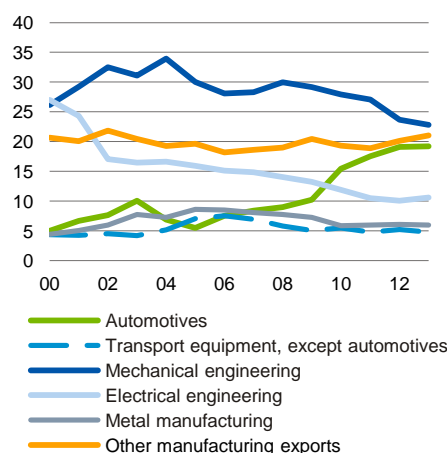


Sources: Eurostat, Deutsche Bank Research

Strongest growth in automotives' share

9

% of total EU exports to China



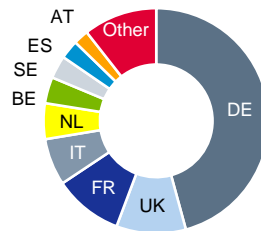
Sources: Deutsche Bank Research, Eurostat

Slovakia and Luxembourg, accounting for over 10% of their exports to non-EU countries. China's importance as import source is even more evident, accounting for nearly 20% of imports into Denmark, Hungary and Estonia and for a whopping 27% of imports into the Czech Republic (see table 10 on next page).

EU economies' exports to China

6

% of total EU exports to China, 2013



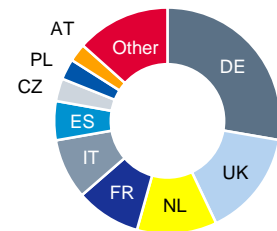
Note: Data for ES, PT taken from ComExt database.

Source: Eurostat, Deutsche Bank Research

EU economies' imports from China

7

% of total EU imports from China, 2013



Note: Data for ES, PT taken from ComExt database.

Source: Eurostat, Deutsche Bank Research

EU-China trade is (still) mostly about manufacturing

Manufacturing accounts for over 90% of EU-Chinese bilateral trade, compared with a share of two-thirds for the EU's overall trade in recent years (chart 8).⁴ Manufactured goods account for 84% of total EU exports to China and 96% of EU imports from China.

Among sectors, machinery and automotives represent the lion's share of EU exports to China, taking 42% between them. While machinery has been declining, automotives have soared (chart 9).

China accounts for 9% of EU manufacturing exports to extra-EU locations. Nevertheless, China is much more important than that for certain industries in specific countries. In Germany, 33% of extra-EU metalworking machinery exports and 18% of extra-EU automotives exports go to China. Apart from manufacturing, France's textile fibre industry, Britain's fur skin industry and the EU waste-paper industry all rely on China for more than 50% of their extra-EU exports.⁵

Regarding manufacturing imports, China is a key partner, accounting for around one-third of the EU's manufacturing imports, and much more in certain industries – for example, over 80% of travel goods and handbags and nearly 50% of clothing and footwear imports come from China. China is the EU's largest source of textile imports by far, ahead of other important partners such as Bangladesh and Turkey.

⁴ Manufacturing defined as SITC groups 5-8, excl. 68 (non ferrous metals) and 667 (pearls and semiprecious stones), based on UN classifications. Note that all industry specifications in this paper are derived from statistics based on SITC classifications and may deviate from similarly labelled figures based on other classification methods.

⁵ China is also an important market for EU exports of copper (40% share) and nickel (24%).



China-EU relations: Gearing up for growth

China-EU trade (goods and services) by country

10

Blue shading indicates a China share above 5% of individual countries' imports or exports. Light (dark) grey marks a bilateral trade deficit (surplus) greater than 1% of GDP

	Goods trade						Services trade					
	Exports to China, % of		Imports from China, % of		Trade value	Trade balance	Exports to China, % of		Imports from China, % of		Trade value	Trade balance
	Extra-EU	Total	Extra-EU	Total	EUR bn	% of GDP	Extra-EU	Total	Extra-EU	Total	EUR bn	% of GDP
Austria	8.0	2.5	18.0	5.1	9.8	-1.1	3.5	0.9	4.0	0.9	0.7	0.0
Belgium	7.2	2.2	8.8	2.4	11.7	-0.2	2.6	0.8	2.1	0.5	1.0	0.1
Bulgaria	7.3	2.9	8.2	3.3	1.5	-0.4	0.5	0.2	1.6	0.6	0.0	0.0
Croatia	1.7	0.7	13.0	5.2	0.9	-1.7	0.7	0.1	1.7	0.6	0.0	0.0
Cyprus	4.7	2.1	13.0	4.2	0.2	-0.9	0.2	0.1	2.7	1.0	0.0	-0.1
Czech Rep.	5.9	1.1	27.0	8.8	9.5	-4.9	2.0	0.5	12.2	3.6	0.6	-0.3
Denmark	8.2	3.1	19.9	6.1	7.3	-2.1	8.9	5.0	5.9	2.7	3.9	0.6
Estonia	2.7	0.8	19.0	3.0	0.4	-1.6	0.4	0.1	7.4	1.6	0.0	-0.3
Finland	11.0	4.9	9.1	3.0	4.5	0.6	6.0	3.0	10.7	3.6	1.5	-0.1
France	8.2	3.4	14.6	4.8	38.5	-0.5	8.0	3.7	6.0	2.6	10.4	0.1
Germany	13.6	5.7	17.6	7.3	138.6	-0.2	8.4	4.3	5.6	2.4	15.4	0.1
Greece	1.3	0.7	6.3	3.5	1.6	-0.7	0.9	0.4	4.5	1.9	0.3	-0.1
Hungary	8.4	1.8	19.0	5.3	5.3	-2.5	1.7	0.5	2.6	0.7	0.2	0.0
Ireland	4.4	1.7	14.6	4.1	3.5	-0.4	6.3	2.7	0.6	0.3	2.9	1.4
Italy	5.4	2.5	14.2	6.3	32.1	-0.8	2.9	1.4	4.7	1.9	2.7	0.0
Latvia	2.9	0.8	11.0	2.5	0.4	-0.9	0.0	0.0	4.2	1.8	0.0	-0.2
Lithuania	0.8	0.4	5.2	2.0	0.6	-1.3	0.5	0.2	1.6	0.6	0.0	0.0
Luxembourg	16.8	3.7	3.3	0.4	0.6	0.9	2.4	0.7	1.4	0.5	0.6	0.5
Malta	2.4	1.6	9.9	3.1	0.2	-1.0	0.4	0.1	2.5	0.8	0.0	-0.2
Netherlands	6.8	1.8	16.9	8.0	37.0	-3.6	4.2	1.9	6.4	2.7	3.6	0.0
Poland	4.1	1.0	16.0	5.0	9.3	-1.5	1.3	0.3	3.4	0.7	0.3	0.0
Portugal	4.7	1.4	8.7	2.4	2.0	-0.4	0.7	0.2	1.4	0.4	0.1	0.0
Romania	3.3	1.0	14.7	3.5	2.3	-0.9	0.9	0.2	2.8	0.6	0.1	0.0
Slovak Rep.	14.6	2.5	12.4	3.1	3.5	-0.4	0.8	0.2	6.4	0.6	0.0	0.0
Slovenia	2.4	0.6	11.6	2.4	0.7	-1.1	1.0	0.2	1.6	0.4	0.0	0.0
Spain	4.5	1.7	12.6	5.6	18.4	-1.0	1.5	0.5	4.4	1.3	1.4	0.0
Sweden	8.7	3.7	15.3	4.9	10.7	-0.3	3.5	1.6	5.8	1.8	1.7	0.0
United Kingdom	8.2	4.1	17.2	8.1	53.9	-1.3	2.6	1.7	2.4	1.2	5.4	0.1
EU Total	8.5		16.6		428.3	-1.0	4.7		4.0		53.1	0.4

Note: Values are based on Eurostat's balance-of-payments database and do not necessarily add up to EU total. Moreover, values can differ when using Eurostat's international trade database, which is used to disaggregate EU-China goods trade by product or trading partner. Data represent full-year 2013 except for Estonia (Q2-Q4) as data prior to Q2 2013 is marked "confidential". Data for goods trade with Spain and Portugal are taken from Eurostat's international trade database (ComExt) due to balance-of-payments data marked "confidential". Portugal services trade data is for 2012.

Sources: Eurostat, Deutsche Bank Research



China-EU relations: Gearing up for growth

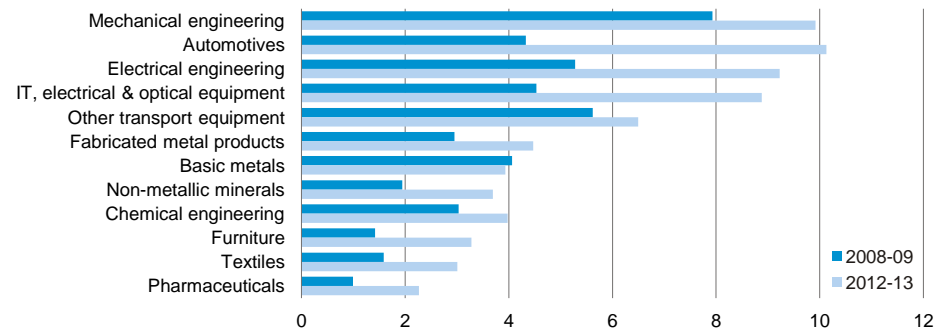
China factor matters a lot for Germany's automotive and mechanical engineering sectors

As China's largest trading partner in the EU, Germany is particularly well placed to benefit from an intensification of bilateral trade relations. With a share of nearly 10% of German exports (and 18% of extra-EU exports) the Chinese market is important for key German industries such as mechanical engineering, automotives and electrical engineering (chart 11). For Germany's automakers, China's export share more than doubled between 2008-09 and 2012-13. Moreover, exports of electronic equipment, furniture and pharmaceuticals to China have all grown at a CAGR of around 20% in the past five years. At the same time, for some of Germany's exports of machinery and equipment as well as automotives, China's market share has softened after peaking in 2011-12. That is because growth in exports to China in these sectors has slowed (or even declined) more than exports to other non-EU countries.⁶

China matters for Germany's key industries

11

China share, % of total exports



Sources: Eurostat, Deutsche Bank Research

Assuming that Germany maintained its share of a bit over 40% in EU-China exports of the past decade, German exports to China could grow by more than 60% over the next ten years. Judging from the experience with the EU-Korea FTA which entered into force in 2011,⁷ Germany's industry exports could additionally benefit from tariff reductions under a potential agreement. This could boost German-China exports to more than double their current value by 2024.

In this vein, key German industrial sectors will see China's export share grow further. However, for some, like automotives, the pace of growth may be less dramatic than in recent years – due *inter alia* to expanding capacities of production facilities on the ground which in part substitute for imports.

Of course, a higher China share in exports also implies vulnerability to slowing growth and demand in China. Up to now, this risk has been contained despite the rising importance of China, given that German exports are well diversified. Taking into account China's share of the world economy and assuming a stable growth path in the years to come (*vis-à-vis* current growth), 1% lower GDP growth in China would translate into less than 0.3% weaker growth for German exports.⁸

⁶ See also Deutsche Bank Research (2013). Research Briefing. China market growing moderately.

⁷ Deutsch-Koreanische Industrie- und Handelskammer. Ein Jahr EU-Korea FTA, 2012.

⁸ See also Deutsche Bank Research. Focus Germany, Feb 2014.

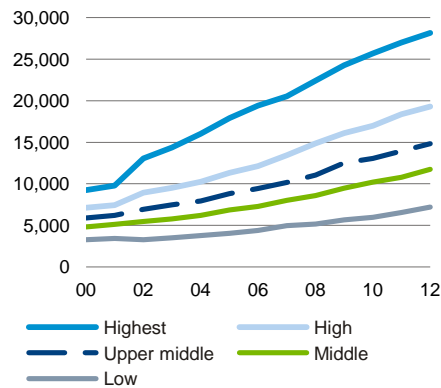


China-EU relations: Gearing up for growth

Steady growth in consumption spending

12

Real per capita consumption spending, by urban household income group, RMB



Source: CEIC

EU industries benefiting from Chinese consumer trends

EU consumer goods exports have been buoyed by the demand of an increasingly affluent middle class in China. For example, in 2013 China overtook France as the largest consumer market for red wine.⁹ Also, China's newly discovered appetite for olive oil is being felt in Southern Europe, as China became the fourth largest market for Greek olive oil in 2012. Olive-oil exports from Greece to China surged by 160% within two years up to 2012.¹⁰

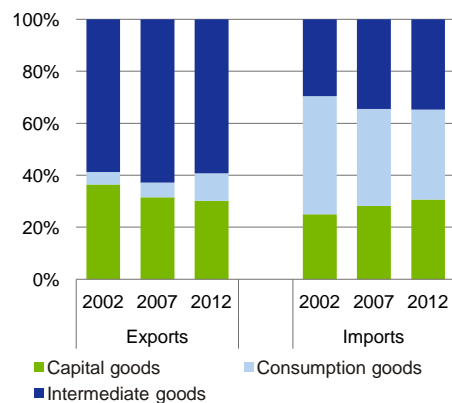
However, overreliance on the Chinese market may bear risks. European sellers of luxury goods have already begun to feel the impact of the Chinese government's campaign against "conspicuous consumption". Moreover, foreign brands will need to adapt to Chinese consumers' increasing diversity. For example, shoppers in China's first-tier cities may behave very differently from those in smaller cities.¹¹

Europe's automobile producers, too, hold considerable stakes in China's consumer story, placing hopes on continued demand from first-time buyers and the allure of quality (the share of Chinese brands in passenger vehicle sales declined in Q1 2014). For several European auto makers, China is already the biggest market, often ahead of the US; some (e.g. Volvo) expect it to reach that status within the next year.¹² To be sure, the extent to which China's automobile market can grow in the future is challenged by anti-pollution measures, restrictions on licences in first-tier cities and curbs to government spending. Nevertheless, there is no reason to become disenchanted. China's level of private consumer spending is growing at a fast pace (chart 12). Annual disposable income for urban households reached RMB 10 tr in 2012 and is predicted to more than double in real terms by 2022.¹³

EU importing more capital and intermediate goods from China

13

% of total EU exports & imports to and from China



Sources: UN COMTRADE, Deutsche Bank Research

Focus on value chains: How intertwined are EU and China really?

Besides the prominent role the EU and China play for each other's exports and imports, bilateral trade relations hinge on the role of intermediate products. Attributing the gross value of exports to the country which ships them neglects the role of countries involved in the intermediate production. Over the past decade, China has emerged as a key player in the internationalisation of production processes – a standing which has earned the country the nickname "assembler of the world". Indeed, intermediate goods that need to be processed further for final consumption composed 60% of EU exports to China in 2012, but only 35% of EU imports from China (chart 13). The traditional pattern of exchanging capital and intermediate goods for consumption products still prevails in EU-China trade. However, a trend shift is visible. Consumption goods nearly doubled as a share of EU exports to China between 2007 and 2012 but declined as a share of EU imports from China. At the same time, China has started to supply an increasing share of capital goods to the EU, in line with its pursuit to upgrade its manufacturing capabilities.

⁹ International Wine and Spirit Research, 2014.

¹⁰ EU SME Centre. The food and beverage market in China, 2013.

¹¹ Bain & Company. Luxury goods worldwide market study, 2014.

¹² Wall Street Journal. Volvo cars says China will be brand's largest market, 19 Apr 2014.

¹³ McKinsey & Company. Mapping China's Middle Class, 2013.



China-EU relations: Gearing up for growth

European inputs are important ingredients of China's exports

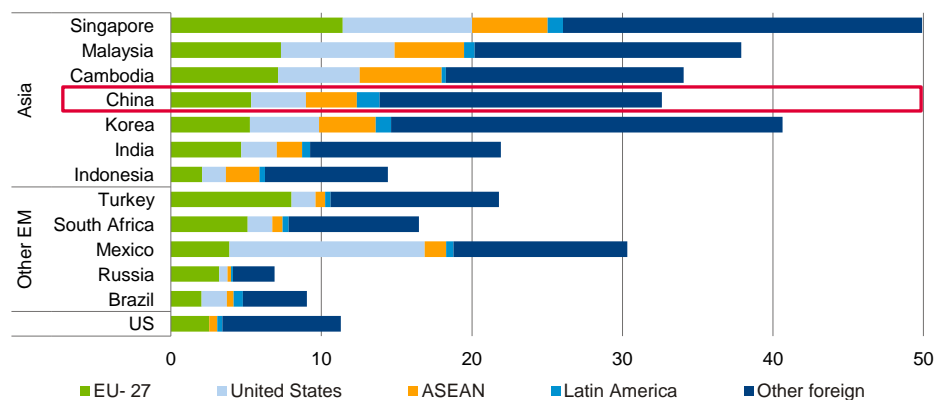
One way of measuring integration into global supply chains is to look at the imports needed to produce intermediate or final goods and services to be exported.¹⁴ When decomposing the value-added of exports into foreign and domestic, the EU's exports are overwhelmingly, at 86%, composed of inputs from within the EU. By contrast, China sources roughly a third of the value-added used in its exports from abroad. This foreign value-added content, which has risen progressively since China's accession to the WTO, reflects the export sector's reliance on global upstream industries. At 67%, the domestic value-added embedded in China's exports is, however, larger than typically suggested by the dubbing of China as the world's "assembler".

Of the value-added in China's exports, a bit over 5% originates from the EU-27, making it the single most important source of foreign inputs for the export industry, ahead of other sources such as the US and ASEAN (chart 14). The bulk of EU value-added in China's exports is from the "old" EU-15, with Germany being the largest contributor.¹⁵

EU largest source of foreign value-added in Chinese exports

14

Foreign value-added embedded in gross exports, % of total exports

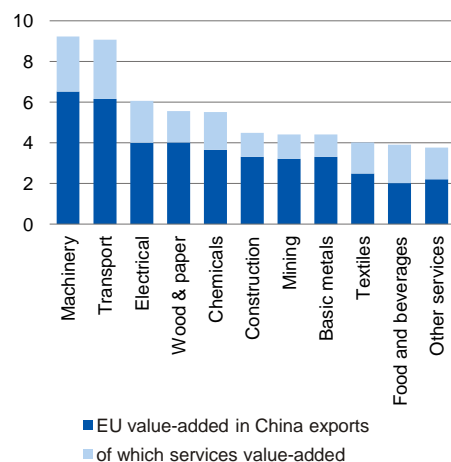


* Excluding the domestically created value-added for ASEAN or Latin American economies.
Sources: Deutsche Bank Research, OECD

EU value-added input in China exports

15

% share, by export industry



Sources: OECD, Deutsche Bank Research

Among China's exporting sectors, machinery, transport and electrical equipment are the most reliant on inputs from Europe (chart 15). A substantial contribution of EU value-added stems from imports of business services such as consulting, communication, IT services and licence fees, which feed into processing industries at various stages before finished products are exported.

By contrast, European countries' reliance on imported value-added from China for their exports is still very limited. China contributes only around 1% of value-added to exports by Germany, France, the Netherlands and Sweden. By sector, a slightly higher share of components "made in China" is found in exports of textiles, machinery, and electrical and optical equipment. As mentioned above, the bulk of EU imports from China targets domestic consumption. Nearly 13% of the EU's imports to meet domestic demand were provided by China in 2009, compared to 9% in 2005 and 5.4% in 2000.

¹⁴ This is done using the OECD's Trade-in-Value-Added database. Note that the last year for which data is available is 2009.

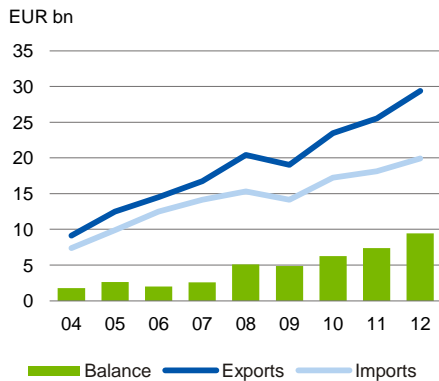
¹⁵ For a similar analysis of value-added input of the EU-15 on CEE countries see Muehlberger, M. and K. Koerner (2014). CEE: Fit for the next decade in the EU. Deutsche Bank Research, EU Monitor.



China-EU relations: Gearing up for growth

EU's services trade with China

16



Sources: Eurostat, Deutsche Bank Research

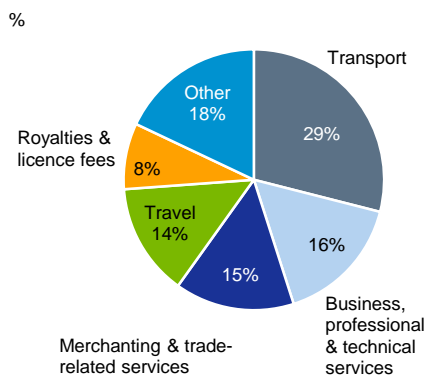
EU-China trade in services

China is still a small services partner for the EU but importance is growing fast

The key markets for EU services exports are the intra-EU market (55%) and the US (11%). Asia as a whole is a sizeable market, but no single country has significance on its own. China accounts for around 2% of total EU services exports (3% if Hong Kong and Taiwan are included), just ahead of Japan with almost 2%. Nevertheless, EU services exports to China grew by 16% p.a. on average in 2004-2012, more than double the rate of growth of total services exports. Regarding EU services imports, the picture is similar: the main sources are intra-EU (41% of total) and the US (12%). China's share is below 2% but its growth has been rapid at 14% p.a. on average in 2004-12 vs. only 6% for total EU services imports. Unlike in goods trade, the EU has run a consistent surplus against China in the services trade account, which has widened in recent years (chart 16).¹⁶

EU's services exports to China in 2012 by category

17



Sources: Eurostat, Deutsche Bank Research

Among EU services exports to China, the most important sector is transport with a share of 29%, followed by business, professional and technical services, merchenting and trade-related services and travel with similar shares of around 15% each. By country, Germany is China's largest services trade partner in the EU, with a trade volume of EUR 13 bn in 2012 (charts 18 and 19), roughly a quarter of China-EU services trade.

Promising outlook for EU services exports to China

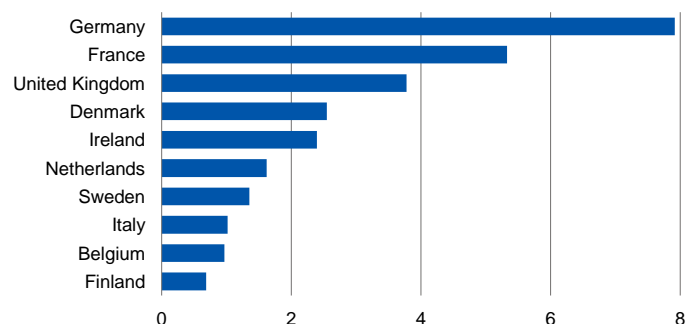
Transport and trade-related services have sizeable potential as China continues its relentless trade and economic engagement with the rest of the world. Regarding travel, outbound Chinese tourism is relatively new and expected to see rapid growth in the medium term, underpinned by a rising middle class and new wealth accumulated since the past decade. In 2013, 97 million Chinese travelled abroad, and the number is expected to surpass 100 million this year.¹⁷

The number of Chinese travellers to Europe still lags far behind Asian destinations. Mainland Chinese travellers to the top-4 European destinations (Italy, UK, Germany and France) combined were 1.6 million last year (chart 20), fewer than Chinese visitors to South Korea (3 million) and Thailand (2.2 million). But this may be changing: Chinese arrivals into Italy grew at an average rate of 26% during 2010-12, compared to overall outbound tourism growth of 20%.

EU services exports to China by country of origin

18

Top-10 countries, EUR bn (2012)

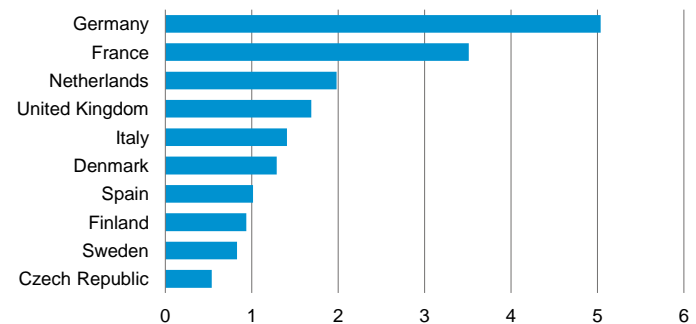


Sources: Eurostat, Deutsche Bank Research

EU services imports from China, by destination

19

Top-10 countries, EUR bn (2012)



Sources: Eurostat, Deutsche Bank Research

¹⁶ Most of the data in this section is compiled from Eurostat's International Trade in Services database (Eurostat yearbook), for which 2013 figures are still preliminary.

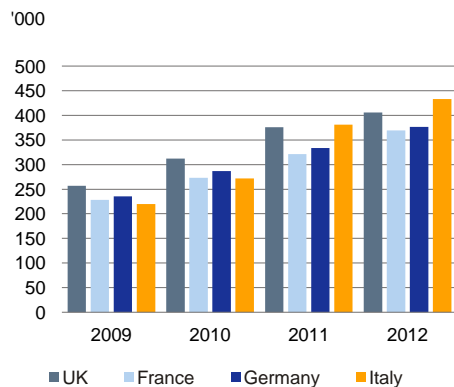
¹⁷ China Daily. At 97 m and growing, China has most outbound tourists, 9 Jan 2014.



China-EU relations: Gearing up for growth

Chinese departures to key EU-27 countries: Italy coming up strong

20



Source: CEIC

Prospects for exports of other business services are also favourable. Demand from China's corporate sector, with its growing sophistication, as well as from its large consumer market spells large opportunities for services of trading and sourcing companies. Moreover, given the current stage of development of China's privately-owned enterprises, the restructuring of state-owned enterprises as well as the expansion of multinational corporations, professional services like legal, accounting, public relations, advertising, market research and R&D services are likely to be in strong demand for the next several years.

EU services imports from China: Transport services dominate

EU services imports from China totalled EUR 20 bn in 2012, equivalent to almost 3% of imports from extra-EU sources. The largest component of EU services imports from China is transport, accounting for 45% of the total and almost 8% of EU imports from outside the Union.

Travel services accounted for 13% of EU services imports from China. Arrivals in China from the top-4 EU countries in this category (Germany, UK, France and Italy) reached around 2 million in 2013, making up around 1.6% of total inbound travellers into China that year. European arrivals in China tapered significantly after the global financial crisis in 2008 and are thus far only recovering slowly, which could suggest that many European visitors come to China for business purposes rather than for leisure.

China has overtaken Japan as main source in Asia for EU imports of transport and travel services as well as trade-related, legal and other services but it lags behind in royalties and license fees and financial services. This may be indicative of the fact that China is yet to catch up in developing and selling intellectual property-protected products and that its financial sector remains relatively closed.

EU imports of China's financial services are likely to be significantly boosted as the role of the renminbi (RMB) as international currency expands – which is the topic of the next section.

Sowing the seeds for greater RMB business in Europe

China's accelerated push for internationalising its currency has led to the fast expanding use of the RMB in global transactions, including in the EU. The RMB was used for 29% of the eurozone's (and 38% of non-eurozone Europe's) cross-border transactions with China and Hong Kong at end-May 2014, from 19% (29%) a year earlier.¹⁸ In terms of transaction volume, Germany accounted for 3% of cross-border RMB receipts and payments, and the UK 2%.¹⁹ Europe also ranks among the top-five users of RMB for trade finance with a share of 5%, which includes remittances, letters of credit and import/export financing.²⁰

Clearing centres for RMB have sprung up around the globe. Now Frankfurt and London have joined Asian counterparts in establishing themselves as hubs for RMB clearing and settlement. With the appointment of clearing banks by the People's Bank of China (PBoC) and the launch of direct trading between RMB and GBP on the interbank foreign exchange market, a critical milestone for boosting offshore RMB business in Europe has been reached. Luxembourg and Paris are expected to soon join the league of RMB clearing locations in Europe, following Banque de France's and Banque Central du Luxembourg's signing of memoranda of understanding (MoU) with PBoC in June 2014.

¹⁸ SWIFT. RMB Tracker, June 2014.

¹⁹ According to information provided by PBoC.

²⁰ Deutsche Bank. At the centre of RMB Internationalisation, March 2014.



China-EU relations: Gearing up for growth

Germany's push for facilitating the use of the RMB not least reflects the country's already vital role for trade and investment with China. In a sense, the clearing and settling arrangement signed in March 2014 between PBoC and the Bundesbank can be seen as the financial sector's catching-up to greater real economic linkages. While there are mutual benefits, mid-sized companies, in particular, stand to gain from RMB clearing in Europe as they can reap the fruits of efficient pricing and processing of cross-border payments in the European time zone.

The volume of RMB deposits in European offshore hubs has climbed to RMB 100 bn at end-2013, still relatively low at e.g. less than half of the RMB deposits held in Taiwan. Luxembourg boasts the largest pool of RMB deposits (RMB 79 bn as of March 2014), reflecting its role in trade financing activities. RMB deposit-taking has risen particularly quickly in Paris, to around RMB 20 bn by mid-2013, and will likely accelerate in Frankfurt as offshore business expands.²¹

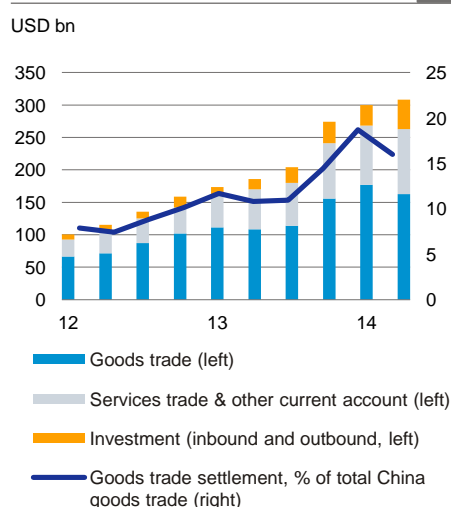
Plenty of potential for RMB settlement in Europe

While RMB trade settlement has increased rapidly in recent years, there is plenty of upward potential, especially coming from Europe. China's total trade has grown at a CAGR of 10% over the past five years. In parallel, China's cross-border trade and investment settled in RMB increased by nearly 60% yoy in 2013 to reach a total volume of RMB 5.2 tr. RMB trading has increased not only for use of settling trade in goods, but notably also for services trade and foreign direct investment, both in and out of China (chart 21). Settlement of RMB-denominated goods trade, which remains the main channel for RMB cross-border flows, amounted to more than RMB 3 tr in 2013 and accounted for 12% of China's total goods trade. However, the use of the RMB for invoicing has lagged behind its use for trade settlement, suggesting scope for future expansion while confidence in the use of the RMB as invoicing currency is building.²²

RMB settlement between China and the EU has grown even faster than the global volume, albeit from a low base. European trading partners accounted for around 8-10% of total RMB trade settlement with China at end-2013,²³ whereas Asian countries took the lion's share. With this, Europe's settlement of RMB goods trade represented only 1% of China's total trade or 7% of EU-China bilateral trade as of 2013.

The status quo leaves plenty of headroom for greater adoption of the currency in Europe. Continued efforts to internationalise the RMB along with prospects of strong trade relations and growing Chinese investment in the years to come could boost the amount of RMB-denominated settlement in the EU to 6 to 7-fold its current value over the next decade. Given our expectation of steady growth in EU-China bilateral trade over the same period, RMB-denominated trade settlement in Europe could increase to as much as 40% of EU-China bilateral goods trade by 2024. This projection can even be considered conservative, if prospects of China's capital account liberalisation are factored in.

Greater role of RMB for settling investment and services trade 21



Sources: CEIC, National Statistics, Deutsche Bank Research

²¹ According to data by Paris Europlace, Luxembourg for Finance.

²² IIF. Catching up with the Renminbi, July 2014.

²³ See also Deutsche Bank. CNH Market Monitor, June 2014.

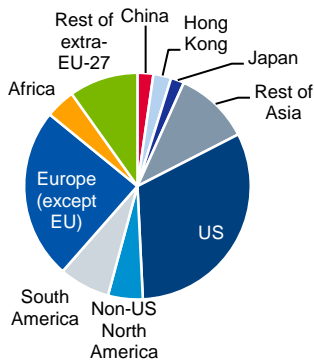


China-EU relations: Gearing up for growth

EU holds 2% of its FDI stock in China

22

% of EU FDI stock held in extra-EU (2012)



Sources: Eurostat, Deutsche Bank Research

EU-China investment relations

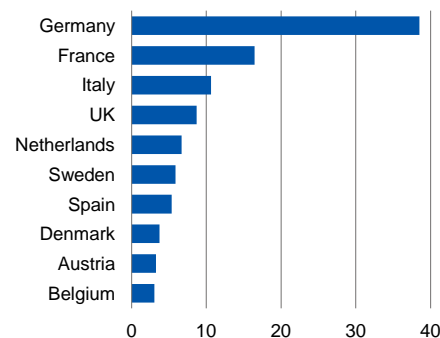
The EU-China investment partnership currently being negotiated takes the bilateral strategic partnership to the next level. The proposed but long delayed agreement, aimed at scaling down barriers to investment and strengthening the legal framework, received renewed attention during Xi Jinping's visit to Europe in March 2014. A critical question is whether the two main topics at stake – investment protection and market access – can be balanced in a way to reconcile interests and allow reciprocity of firms' participation on both sides of the deal.

The EU's investment relations with China have long had a strong eastward bias, but this pattern has begun to change with China's growing wealth and appetite for overseas investment. By 2012, China had emerged as the third largest foreign investor globally, measured by its share in the global outbound investment flows. China also remained the second largest recipient of global FDI flows in 2012 and 2013, trailing only the US.²⁴

Top 10 EU investors in China

23

Stock, EUR bn (2012)



Sources: Eurostat, Deutsche Bank Research

EU is among China's top FDI sources

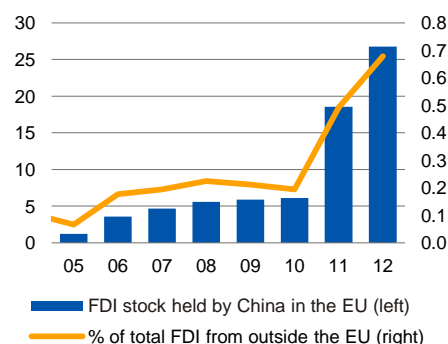
The EU has a large presence in China as measured by FDI stock. As of 2012, the EU held EUR 118 bn of foreign investment in China, accounting for around 18% of China's FDI stock. That is 2% of the EU's total FDI stock, exceeding the EU's stock of FDI in Japan (chart 22). In assessing the EU's FDI into China, one must be mindful that some investment funds could have been channelled through Hong Kong. The EU's FDI stock in Hong Kong was EUR 133 bn as of 2012.

European investment in China is not a recent phenomenon. Many European firms can look back to a long-standing presence in China, making use of cost-efficient production and, increasingly, of proximity to the world's fastest growing consumer market. After the global financial crisis, European firms further expanded their foreign investment position in China, leveraging on China's large-scale stimulus package at a time when the EU was grappling with recession. After a weak 2012, EU investment into China rebounded by 18% in 2013 according to official Chinese data (which exclude financial-sector related investment).

Dramatic rise in Chinese FDI to the EU

24

EUR bn (left), % (right)



Sources: Eurostat, Deutsche Bank Research

The top five FDI source countries for China in the EU are Germany (EUR 38.5 bn in FDI stock), France (EUR 16.5 bn), Italy (EUR 10.6 bn), the UK (EUR 8.7 bn) and the Netherlands (EUR 6.7 bn). Together, they account for almost 70% of the EU's FDI stock in China (chart 23). Their investments span from manufacturing to service sectors. There were concerns that China's rising labour costs might lead to FDI being relocated to other destinations. According to UNCTAD, thus far more relocation has taken place towards inland provinces in China than to other destinations in Southeast Asia.²⁵ In labour-intensive industries, however, some companies did increase the number of manufacturing contracts in cheaper locations in Southeast Asia. At the same time, production upgrading efforts in China have led to a greater number of foreign-invested research and development (R&D) centres, with the number of such centres doubling during 2008-2012.

Chinese investment in Europe more than quadrupled during 2010-12

Chinese investors have increasingly flocked to Europe since 2011, boosting the stock of FDI by more than four times within two years. The choice of the EU as a

²⁴ UNCTAD. Global Investment Trends Monitor, Jan 2014.

²⁵ UNCTAD. World Investment Report, 2013.

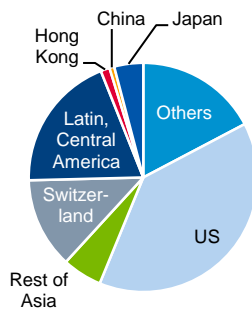


China-EU relations: Gearing up for growth

China's FDI in the EU is still tiny

25

% of total EU-27 inward FDI stock (2012)



Sources: Eurostat, Deutsche Bank Research

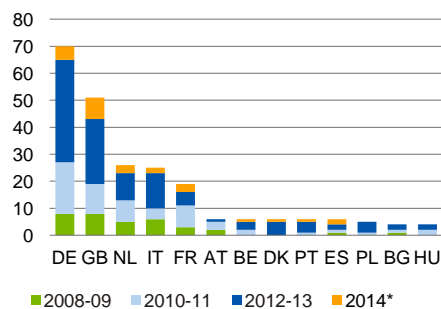
prime destination for Chinese investment has often been labelled as “strategic”, allowing Chinese enterprises access to technology in return for financing. Funding aside, the merits of opening up to Chinese investment were highlighted during Xi Jinping’s March visit to Europe and include 45,000 jobs affiliated with Chinese direct investment as of 2010²⁶ as well as increased tax revenue and R&D activities. According to a survey by the EU Chamber of Commerce, Chinese firms first sought access to European markets to sell goods and services, but in recent years technology, expertise, brands and channels for higher value-added production have emerged as major drivers of Chinese-European FDI.²⁷

In 2010, China’s investment stock in the EU was only EUR 6.1 bn – less than what was held by India, Iceland or Nigeria. By end-2012, China’s FDI stock in Europe had jumped to EUR 26.8 bn, exceeding Korea’s or Mexico’s stock (chart 24). Yet, as a share of overall investment coming from outside the EU, China’s engagement remains very small, at just 0.7% of the total inward FDI stock (chart 25). Against the backdrop of China’s slowing economy, Chinese companies have also been more cautious in expanding their overseas presence. Figures from China’s Ministry of Commerce reveal that investments to the EU declined by 13.6% yoy in 2013.

Germany attracts the bulk of Chinese M&A deals

26

Number of deals



* 2014 Jan-May. Data include investments through Chinese companies’ subsidiaries in HK.
Sources: Bloomberg, Deutsche Bank Research

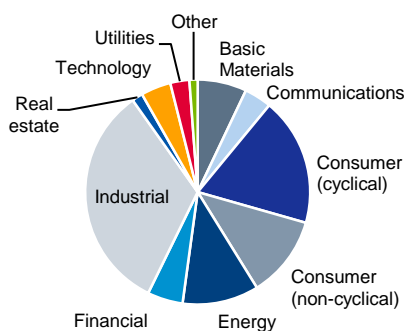
Breakdown by destination precluded by data issues

Eurostat statistics are based on direct transactions between counterparties. Hence they tend to underreport investment by intermediaries of Chinese affiliates based in offshore financial centres such as Hong Kong, Macao or Cayman Islands and overstate FDI to countries serving as investment gateways. Luxembourg is known as an important gateway for Chinese FDI into Europe, but the investment targeting Luxembourg as destination is not reported by Eurostat. Luxembourg also boasts the largest pool of RMB deposits within the EU (RMB 64 bn at end-2013).²⁸ Data from the Chinese Ministry of Commerce indicate that Germany, the UK and France are significant investment locations.

Most M&A deals target industrials

27

% of total China-EU M&A deals, 2008-2014



Note: Consumer cyclicals include sectors such as retail, distribution, auto equipment, entertainment; non-cyclicals include mostly food & beverages, healthcare, pharmaceuticals and commercial services.

Sources: Bloomberg, Deutsche Bank Research

By sector, excluding holding companies’ activities, the largest investments were made in manufacturing, notably chemicals, pharmaceuticals, rubber and plastics production as well as machinery and equipment and services such as management and consultancy.

Germany attracts Chinese greenfield investment

The EU is a primary location for greenfield investment by Chinese enterprises. According to firm-level data, Europe attracted more greenfield investment by Chinese firms than any other region in 2003-11 (in terms of number of deals). By contrast, fewer Chinese M&A deals targeted Europe compared to Asia and North America during the same period.²⁹ Germany drew 13% of China’s global greenfield investment, making it a number one location for new ventures. There is also variation across sectors. The EU received more than a third of China’s greenfield investment in manufacturing and a quarter of investment in services. Companies such as Huawei Technologies and ZTE have brought numerous greenfield investments to the EU while M&A played a minor role for them.

²⁶ Rhodium Group. China invests in Europe, 2012.

²⁷ European Union Chamber of Commerce in China. Chinese Outbound Investment in the European Union, 2013.

²⁸ PWC Luxembourg. Where do you RMB? Feb 2014.

²⁹ Amighini A., C. Cozza, R. Rabellotti, M. Sanfilippo. An analysis of Chinese outward FDIs in Europe with firm-level data. CIRCLE Working Paper, 2014.

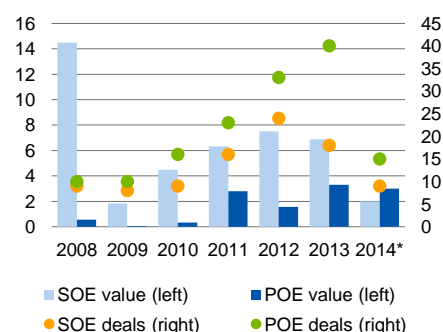


China-EU relations: Gearing up for growth

Chinese investment becoming private

28

USD bn (left), number of deals (right)



* 2014 Jan-May. Data include investments through Chinese companies' subsidiaries in HK.

Sources: Bloomberg, Deutsche Bank Research

The next big steps for China's private firms' ventures abroad

29

China has been actively encouraging firms' overseas expansion since 1999 through its "going out" policy. Whereas state-owned national champions have been at the vanguard of this strategy, the policy has by and by shifted towards promoting private investment abroad.

At the recent 3rd Plenum, authorities pledged to further ease restrictions on overseas investment and facilitate the process for private companies' investment abroad. In practice, lengthy approval procedures and red tape have often held back China's private sector from expanding abroad. Now, as the government permits more private participation in strategic sectors at home, rules for overseas investment are also adapting.

From May 2014, the National Development and Reform Commission (NDRC)'s new 2014 Outbound Investment Measures took effect, simplifying approval procedures and lifting the investment value requiring full review by the body to USD 1 bn. Previously, any outbound investment above USD 100 m (or USD 200 m for resource-related investment) was subject to official approval.

Source: NDRC. Measures for the Administration of Approval and Filing of Outbound Investment Projects, 10 Apr 2014.

M&A has been the dominant type of Chinese investment into Europe

Chinese dynamism in global M&A activity contributed to the fact that emerging market companies' cross-border purchases first exceeded those by firms from developed markets in 2013.³⁰ M&A has also been the dominant type of Chinese investment into the EU. Between 2008 and mid-2014, China sealed more than 200 cross-border M&A deals or formed joint ventures in the EU, according to Bloomberg data. Deal numbers have climbed each year since 2009, although a large share of the 2013 and 2014 deals are still pending completion. In terms of value (where disclosed), 2008 stands out on account of China Aluminium Corporation's purchase of an 11% stake in UK-Australian multinational Rio Tinto – at USD 14 bn the largest EU-27 investment by a Chinese transnational company thus far³¹ (see table 30 for a list of the top 20 deals in 2008-14).

By country, Germany attracted the largest number of deals (increasingly so in later years), while the UK leads in terms of the investment amount. Italy, Netherlands and France saw also several Chinese investment projects (chart 26). Most M&A projects were undertaken in the industrial sector, followed by consumer products and energy (chart 27). Basic materials, energy and cyclical consumer sectors, which include automotives and consumer electronics, also tended to attract large values. A high share of consumer industries in M&A reflects Chinese buyers' growing appetite for investment to cater to the consumers back home.

There is clear variation of M&A strategies across destination countries. In Germany, deals were focused mostly on machinery and alternative energy as well as automotive parts and equipment, and included several *Mittelstand* companies, some of which are "hidden champions" i.e. global market leaders in their respective fields (see table 31 for a list of Germany-based deals). In France, Chinese firms targeted mostly consumer industries, ranging from vineyards to healthcare and theme parks, while in the UK target industries reflect a broad-based mix.

Investment into the EU's industrial sectors has also followed supply chain linkages. One example is Chinese food companies buying stakes in European manufacturers of Asian-focused foods (such as American Lorain buying into the chestnut business by acquiring French Athena). In addition, Chinese companies have sought access to raw materials elsewhere through acquiring stakes in EU-based firms.

Increasing M&A by private Chinese firms

M&A investment in the EU has so far been dominated by state-owned enterprises, capturing 78% of the total investment value in 2008-13. Yet, in terms of the number of deals, privately owned enterprises (POEs) have been in the lead throughout 2008-13, and also in value terms POEs are catching up (chart 29). The share of private investment in total M&A rose to more than 30% in 2011-13 from just 4% in 2008-10. Private firms have been particularly active in Germany, with several prominent deals undertaken in the industrial and consumer sectors.

Recent measures facilitating overseas investment by Chinese firms have increasingly taken a private-sector focus (see also box 29). Bilateral investment treaties such as the one discussed between China and the EU should also provide further stimulus for China's private sector firms venturing abroad while also creating business opportunities for European firms in China.

³⁰ UNCTAD. Global Investment Trends Monitor, Apr 2014.

³¹ A second USD 19.5 bn strategic partnership deal was eventually abandoned.



China-EU relations: Gearing up for growth

Largest China-EU deals in 2008-2014*

30

Target	Country	Acquirer	Sector	Value (USD m)	Year
Rio Tinto PLC	GB	Aluminum Corp of China (Alcoa)	Basic Materials	14135	2008
Eni Spa	IT	China National Petroleum Corp	Energy	4210	2013
Energias de Portugal SA	PT	China Three Gorges Corp	Energy	3510	2011
GDF Suez Exploration	FR	China Investment Corp	Financial	3264	2011
Barclays PLC	GB	China Development Bank Corp	Financial	3062	2007
Volvo Personvagnar AB	SE	Zhejiang Geely Holding Group	Consumer	1800	2010
Borsod Chem Zrt	HU	Wanhua Industrial Group Co	Basic Materials	1552	2011
Talisman Sinopec Energy UK Ltd	GB	China Petroleum & Chemical Corp	Energy	1500	2012
InterGen NV	NL	China Huaneng Group Corp	Utilities	1232	2010
Weetabix Ltd	GB	Bright Food Group Co Ltd	Consumer	1165	2012
KION Group AG	DE	Weichai Power Co Ltd	Industrials	1136	2012
Ineos Ltd	GB	PetroChina Co Ltd	Energy	1015	2011
Apax Partners LLP	GB	China Investment Corp	Financial	956	2010
Kalahari Minerals Ltd	GB	China Development Bank Corp, China General Nuclear Power Holding Corp	Basic Materials	935	2011
UPP Group Holdings Ltd	GB	Gingko Tree Investment Ltd	Financial	869	2013
CLSA BV	NL	CITIC Securities Co Ltd	Financial	842	2012
Emerald Energy PLC	GB	Sinochem Group	Basic Materials	736	2009
FGP TopCo Ltd	GB	China Investment Corp	Financial	726	2012
Putzmeister Holding GmbH	DE	Sany Heavy Industry Co Ltd	Industrials	689	2012
Redes Energeticas Nacionais	PT	State Grid Corp of China	Utilities	509	2012

*Includes completed M&A, investment, and joint ventures where value is disclosed on Bloomberg. 2014 refers to January to May.

Source: Bloomberg

Selected China-Germany investment in 2012-2014*

31

Target	Acquirer	Sector	Value (USD m)	Month-year
Weingut Diehl-Blees	Jiangsu GPRO Group Co Ltd	Agriculture	Undisclosed	Mar-14
M-tec Mathis Technik GmbH	Zoomlion Heavy Industry Science and Technology Co Ltd	Construction & machinery	48	Dec-13
Conergy SolarModule GmbH	CHINT Group Corp Ltd	Solar energy	Undisclosed	Nov-13
KHD Humboldt Wedag International AG	AVIC International Holdings Ltd	Cement equipment	83	Oct-13
Flex-Elektrowerkzeuge GmbH	Chevron Holdings Ltd	Tool manufacturing	Undisclosed	Sep-13
Thielert Aircraft engines	AVIC International Holding Corp	Aviation	Undisclosed	Jul-13
Buderus Feinguss GmbH	Impro Precision Industries Ltd	Precision components	Undisclosed	Apr-13
HIB Trim Part Group	Ningbo Huaxiang Electronic Co Ltd	Automotive parts & equipment	45	Apr-13
Hanyuan Technical Service Center GmbH	Cosco International Holdings Ltd	Shipbuilding	2	Mar-13
Pfaff Industriesysteme	SGSB Group Co Ltd	Machineries	Undisclosed	Mar-13
Gesellschaft für Innovative Werkzeugsysteme mbH	Tianjin Motor Dies Co Ltd	Tool manufacturing	2	Jan-13
Aweco Appliance Systems GmbH & Co KG	Zhejiang Sanhua Co Ltd	Household appliances & parts	71	Nov-12
WISCO Tailored Blanks GmbH	Wuhan Iron & Steel Co Ltd	Automotive parts & equipment	Undisclosed	Sep-12
KION Group AG	Weichai Power Co Ltd	Automotive parts & equipment	1136	Aug-12
Viseon Bus GmbH	China Youngman Automobile Group Co Ltd	Vehicles	Undisclosed	Aug-12
Intermix GmbH	Sany Heavy Industry Co Ltd	Construction & machinery	10	Jul-12
Solibro GmbH	Hanergy Holding Group Ltd	Solar energy	Undisclosed	Jun-12
Schwing Group GmbH	Xuzhou Construction Machinery Group Ltd	Construction & machinery	Undisclosed	Apr-12
Preh GmbH	Ningbo Joyson Electronic Corp	Automotive parts & equipment	318	Mar-12
Drossbach GmbH & Co KG	Dalian Sunlight Machinery Co Ltd	Chemicals & plastics	Undisclosed	Mar-12
Kiekert AG	Hebei Lingyun Industrial Group Co Ltd	Automotive parts & equipment	Undisclosed	Mar-12
Putzmeister Holding GmbH	Sany Heavy Industry Co Ltd	Construction & machinery	689	Jan-12
Saunalux GmbH Products & Co KG	Anhui Saunaking Co Ltd	Construction & machinery	8	Jan-12
Sunways AG	LDK Solar Co Ltd	Solar energy	56	Jan-12

*Includes completed M&A and investment as listed on Bloomberg. 2014 refers to January to May.

Source: Bloomberg



China-EU relations: Gearing up for growth

Concluding remarks

List of trade disputes involving the EU and China since 2010

32

2013-06: EU-China stainless steel

Measures imposing anti-dumping duties on high-performance stainless steel seamless tubes ("HP-SSST") from the EU

Status: Panel composed

2012-10: Italy, Greece-China renewables

Certain measures affecting the renewable energy generation sector

Status: In consultations

2012-03: EU-China rare earths

Measures related to the exportation of rare earths, tungsten and molybdenum

Status: Panel report circulated

2011-06: EU-China X-ray security inspection

Definitive anti-dumping duties on X-ray security inspection equipment from the EU

Status: Recommendation implemented

2010-05: EU-China iron and steel fasteners

Provisional anti-dumping duties on certain iron and steel fasteners from the EU

Status: In consultations

2010-02 China-EU footwear

Anti-dumping measures on certain footwear from China

Status: Recommendation implemented

Source: WTO

The EU and China will remain key trade and investment partners well into the next decade. A wide and expanding global supply network offers plenty of potential to leverage on each other's comparative advantages and to diversify away from the pattern of exchanging capital inputs for labour-intensive final consumption goods. The EU can play an important role in driving China's long-term objective of becoming a higher value-added producer by supplying technology and business services to Chinese firms. At the same time, the EU is likely to remain a source of high-end goods and services for an increasingly demanding (and affluent) Chinese consumer class.

A renewed push for opening talks on a free trade agreement could boost already close ties. So far, trade dynamics revolve around the bilateral exchange of goods with a few large European countries. But, especially in the consumer sectors, China's fast developing appetite offers room to expand also in smaller economies or industries (as the experience of luxury goods and foods and beverage sectors has shown).

The growing significance of China's services imports from the EU is unlikely to be challenged by China's economic rebalancing. In fact, current reform efforts may even enhance demand for EU services, in line with the government's plan to open up strategic services sectors and move into inland provinces for a second round of urbanisation.

Direct investment relations between the EU and China are still relatively asymmetrical. The EU will continue to be an important source of FDI for China, building on its vast pool of Fortune 500 companies. Increasingly, smaller and medium *Mittelstand*-type enterprises will be in the focus, both as investors into China and as a target of Chinese M&A activities in Europe. Chinese investment into the EU is still in its infancy but is likely to increase and become more broad-based, covering a wider range of industries and countries across Europe.

Finally, a note of caution on one important risk, namely, that of trade disputes becoming an obstacle on the way towards closer bilateral trade and investment relations. Trade disputes have been numerous in the past (see box 32). Reoccurring trade conflicts, if culminating in punitive action against one of the parties, could present a spoiler to EU-China relations. Although the stakes involved are known – and have led to past disputes being settled without much punitive action – this threat is unlikely to be removed in the near term.

Syetarn Hansakul (+65 6423-8057, syetarn.hansakul@db.com)

Hannah Levinger (+49 69 910-31753, hannah.levinger@db.com)



Current Issues

- ▶ Focus Germany: Solid growth, low inflation (despite ECB) June 30, 2014
- ▶ The changing energy mix in Germany: The drivers are the Energiewende and international trends June 26, 2014
- ▶ Focus Germany: Strong domestic economy to suffer from good intentions June 4, 2014
- ▶ The future of Germany as an automaking location May 26, 2014
- ▶ Crowdfunding: Does crowd euphoria impair risk consciousness? May 23, 2014
- ▶ Big data - the untamed force May 2, 2014
- ▶ Focus Germany: So far, so good May 2, 2014
- ▶ Industry 4.0: Upgrading of Germany's industrial capabilities on the horizon April 23, 2014
- ▶ Tight bank lending, lush bond market: New trends in European corporate bond issuance April 15, 2014
- ▶ Agricultural value chains in Sub-Saharan Africa: From a development challenge to a business opportunity April 14, 2014
- ▶ Germany's "Energiewende" driving power-to-gas: From an idea to market launch March 11, 2014
- ▶ Focus Germany: 2% GDP growth in 2015 despite adverse employment policy February 28, 2014
- ▶ The GCC going East: Economic ties with developing Asia on the rise February 18, 2014
- ▶ What's behind recent trends in Asian corporate bond markets? January 31, 2014

Our publications can be accessed, free of charge, on our website www.dbresearch.com. You can also register there to receive our publications regularly by E-mail.

Ordering address for the print version:

Deutsche Bank Research
Marketing
60262 Frankfurt am Main
Fax: +49 69 910-31877
E-mail: marketing.dbr@db.com

Available faster by E-mail:
marketing.dbr@db.com

© Copyright 2014. Deutsche Bank AG, Deutsche Bank Research, 60262 Frankfurt am Main, Germany. All rights reserved. When quoting please cite "Deutsche Bank Research".

The above information does not constitute the provision of investment, legal or tax advice. Any views expressed reflect the current views of the author, which do not necessarily correspond to the opinions of Deutsche Bank AG or its affiliates. Opinions expressed may change without notice. Opinions expressed may differ from views set out in other documents, including research, published by Deutsche Bank. The above information is provided for informational purposes only and without any obligation, whether contractual or otherwise. No warranty or representation is made as to the correctness, completeness and accuracy of the information given or the assessments made.

In Germany this information is approved and/or communicated by Deutsche Bank AG Frankfurt, authorised by Bundesanstalt für Finanzdienstleistungsaufsicht. In the United Kingdom this information is approved and/or communicated by Deutsche Bank AG London, a member of the London Stock Exchange regulated by the Financial Services Authority for the conduct of investment business in the UK. This information is distributed in Hong Kong by Deutsche Bank AG, Hong Kong Branch, in Korea by Deutsche Securities Korea Co. and in Singapore by Deutsche Bank AG, Singapore Branch. In Japan this information is approved and/or distributed by Deutsche Securities Limited, Tokyo Branch. In Australia, retail clients should obtain a copy of a Product Disclosure Statement (PDS) relating to any financial product referred to in this report and consider the PDS before making any decision about whether to acquire the product.

Printed by: HST Offsetdruck Schadt & Tetzlaff GbR, Dieburg

Print: ISSN 1612-314X / Internet/E-mail: ISSN 1612-3158