

Tomorrow's Silk Road: Assessing an EU-China Free Trade Agreement

Executive Summary

April 2016



A study conducted by the Centre for European Policy Studies (CEPS)

TABLE OF CONTENTS

Forw	/ard	.4
Prefa	ace	. 5
Exec	utive Summary	. 6
	Introduction	. 6
	The Rationale for an EU-China FTA	. 6
	The Economic and Trade Policy Context	. 8
	Design and Substance of an EU-China FTA.	13
	An EU-China FTA: Its Economic Impact and Adjustment Issues	28
	Overall Policy Implications	34

FOREWORD

The Foreign Trade Association, which represents the European and international distribution and retail sector, commissioned this study in light of the importance of China as a sourcing country and its attractiveness as a rapidly growing consumer market. We believe that open borders and free trade can contribute to a broader choice and lower costs for consumers and create growth and employment in both Europe and China.

This independent study aims to provide an in-depth contribution on the status of bilateral economic exchanges and persistent trade barriers that exist between the European Union and China. The second objective of the report is to encourage a frank and open dialogue, based on a scientific evaluation and without prejudice, on the possibility of a preferential trade agreement between the two sides.

This study should be read by anyone who is interested in economic relations between the EU and China and in trade policy in general. The report provides many interesting findings and raises a number of surprising points. Overall, this study is one of the most significant contributions to the discourse on EU-China relations in recent years.

We hope that this study will stimulate fresh thoughts on the benefits of closer future cooperation between two regions that have been interlinked since the times of antiquity and the first Silk Road.

Christian Ewert, FTA Director General Brussels, April 2016



The Foreign Trade Association (FTA) is the leading business association of European and international commerce that promotes the values of free trade and sustainable supply chains.

We bring over 1,700 retailers, importers, brands and national associations to improve the political and legal framework for trade in a sustainable way.

PREFACE

The ancient Silk Road consisted of a network of paths, mountain passes and 'branches' used by daring traders to connect China and Europe via several intermediaries. There was no real infrastructure, just a near-endless chain of local and regional byways. Indeed, the Silk Road was not so much a 'road' but an expression of a fierce determination to connect markets and to seek the value-added of goods exchanged between different cultures and levels of development.

Tomorrow's Silk Road can add great value to what already is an intense economic intercourse between China and the EU. It is all about a similar determination as motivated the ancient traders. The present study shows that much could be achieved with 'Tomorrow's Silk Road', in the form of a Free Trade Area Agreement between the EU and China, especially if it is a 'deep and comprehensive' one. Good for China and good for the EU.

The authors would like to express their gratitude to many who have helped us with interviews, discussions, documents and otherwise. We wish to emphasise that the authors have been able to work in full independence at all stages of the work through to the very end when the results were available. In this respect, the Foreign Trade Association, having commissioned CEPS to carry out the study, with the critical contribution of the World Trade Institute in Bern as well, has fully respected the independence of CEPS.

The authors are also grateful to the Chinese Mission to the EU, which has been very effective in supporting our visit to Beijing in December 2015, which proved most valuable. The same goes for the European Commission, which responded to our requests for specialised advice or comments on a number of occasions. Readers should be aware that neither the Chinese Mission nor the European Commission intervened at any moment while the authors were drafting this report.

We hope that readers will find the study valuable.

On behalf of the authors,

Jacques Pelkmans, Senior Fellow, CEPS, and study leader

EXECUTIVE SUMMARY

INTRODUCTION

In developing its international trade strategy since 2006, the EU has placed a strong emphasis on concluding Free Trade Agreements (FTAs) with dynamic East Asian economies. Until very recently, however, no explicit mention has been made of China – the region's largest and most dynamic economy – as a possible candidate for a FTA with the EU. This oversight becomes even more glaring if one considers the magnitude of the economic intercourse that already exists today between these two trading partners. China is the logical sequel in the Union's trade strategy for East Asia. This study attempts to provide a solid analytical basis for negotiations on an EU-China Free Trade Agreement (formally, Free Trade Area treaty). The first official suggestion for such a FTA, made by Chinese President Xi Jin Ping in the spring of 2014, has recently been considered, cautiously and under various conditions, by the EU as well. This study deals with three principal aspects: (1) the 'why' of the FTA, (2) the 'how' to incorporate a broad spectrum of trade policy areas usually found in 'deep and comprehensive' FTAs and (3) the stylised 'economic impact', based on a cutting-edge application of CGE modelling together with the newest GTAP database for such a demanding exercise.

THE RATIONALE FOR AN EU-CHINA FTA

The rationale behind a FTA between China and the EU – the 'why' – can be based on five arguments. More than one argument or all five of them might be valid for policy-makers at the same time. The keywords characterising these five arguments are: greater economic potential, comparative market access, mega-regionals, the link between Chinese reforms and exposure to foreign competition, and strategic and geo-political advantages.

EU-China: Economic and trade indicators, 2014

- GDP: €16,556.9 billion for the EU and €9,014.7 billion for China
- GDP per capita: €32,307.7 for the EU and €6,468.2 for China
- Total bilateral trade in goods and services: €518.8 billion
- FDI-EU position with China (2013): Outward €130 billion, Inward €27 billion
- Average applied tariffs in industry: 3.8% for the EU and 8% for China
- Average applied tariffs in agro-food: 7.2% for the EU and 13.9% for China

Economic potential of a FTA The economic potential of EU-China trade and investment relations is far greater than what has proven possible until now (due to restrictions and bans), despite impressive growth of bilateral trade and investment in the recent past. The simulations in Part III of the study support the notion of much greater economic potential, insofar as such modelling can estimate such effects. The extensive qualitative evidence and business information in Part II of the study not only confirm this prognosis, but go far beyond what a quantitative simulation can calculate. For both the EU and China, tapping such economic potential is the principal mission of trade (and investment) policy; hence, this rationale is a powerful one.

Comparable market access	Another reason for the FTA may consist in the assurance of market access that is at least as good as is available with other relevant trading partners; otherwise, the competitive positions of EU and Chinese companies vis-á- vis companies from other trading partners may be damaged temporarily or permanently. This rationale is known as the 'domino' theory (or, alternatively, the 'me-too' rationale) for the incessant tendency to negotiate new FTAs. The EU and China each find that they are negotiating with trade partners having or planning to have an improved form of market access. This generates understandable pressures to improve market access also directly between themselves.
Not losing out on mega- regionals	A third argument for an EU-China FTA is the emergence of 'mega- regionals', including the Trans-Pacific Partnership (TPP) (without China), the Transatlantic Trade and Investment Partnership (TTIP) (under negotiation between the EU and the US), the Regional Comprehensive Economic Partnership (RCEP) (under negotiation, with China and the ASEAN countries as the main architects, but less ambitious) and, to a lesser degree, the EU-Japan FTA (under negotiation) and the Comprehensive Economic and Trade Agreement (CETA) between the EU and Canada (yet to be ratified). These pacts have increased the incentives for China to turn to its largest trade and major FDI partner – the European Union – to improve market access, deepen investment relations and intensify economic and technical cooperation.
Domestic reforms in China facilitate a FTA	A fourth case can be found in the strong link between profound domestic reforms in China, as the next stage in its transition to becoming a well- functioning, developed market economy and escaping the 'middle-income trap', and the exposure to foreign goods and services competition as well as more widespread FDI in all sectors. For China, it is the 'new logic'. The fundamental connection is the drive to stimulate productivity growth over a long period of time, after the current model of mass production based on low-skilled assembly and extreme export-led growth in such products has begun to run out of steam. Higher productivity growth trends also require better, more and higher-quality services, both domestically and as crucial elements in global value chains. Opening up the Chinese economy is therefore in the mutual interest of both the EU and China, and a deep partnership in the form of an ambitious FTA seems the most expeditious way to achieve that aim (compared to WTO plurilaterals and still more technical cooperation, as alternative approaches).
Geo-political motivations	An EU-China FTA can also be considered for strategic and 'geo-political reasons', although it would seem ill-advised to engage in a FTA solely for such reasons. China might be disappointed in Asia-Pacific Economic Cooperation (APEC), as the group is now split for the time being between a TPP club of twelve and the other APEC members, most of which are in RCEP. China's cooperation with the BRICs is also not doing too well lately, and the One-Belt-One-Road initiative and the Asian Infrastructure Investment Bank (AIIB) are only in the very early stages at best. With respect to the US, China might eventually join TPP, but this is not certain at the moment and a China-US FTA seems hard to imagine politically (at least in the US). One might thus argue that the EU is an ideal geo-political partner for China, as the EU is a 'civil' Union and serves as its largest trading partner and leading investor (with an upcoming EU-China Comprehensive Agreement on Investment or CAI), without being a Pacific power in any other than a distant diplomatic fashion.

THE ECONOMIC AND TRADE POLICY CONTEXT

For a proper appreciation of a possible FTA between the EU and China, one has to understand the economic, trade and reform context in which such an initiative would be negotiated. Since the study focuses quite extensively on the wide scope and the 'how' of the FTA, the contextual analysis is necessarily a bit sketchy. The following aspects are briefly discussed: the overall trade and investment significance of the bilateral relationship today and in the near future, the link between the domestic reforms in China and the FTA initiative, the nature of recent FTA and investment treaties that China has concluded, some indicators of the bilateral trade and FDI relationship, and the importance of global value chains for trade with China and the EU jobs connected with it.

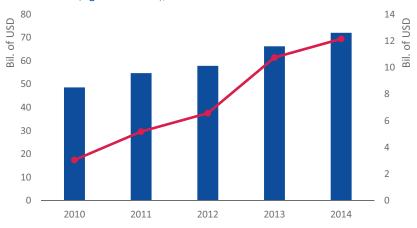
The significance of the bilateral trade and FDI relationship can hardly be underestimated. A FTA between the EU and China would be one between two trade giants. And the expectation is that China would assume the largest trade share in the world economy by 2030, distinctly ahead of the US and on par or slightly ahead of the EU. No other BRIC will have reached anywhere near such trade shares, rendering a FTA even more crucial for both the EU and China.

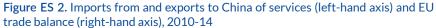
Chinese reforms to be foster trade and facilitate FDI

Since 2013, the Chinese authorities have regularly announced the intensification of the country's reform process. If one would take these pronouncements literally, the difficult transition further away from the old planned economy to a market-driven one, with the state solely in a role as legislator, supervisor and enforcer, would signal decisive progress for China itself, but also for the EU and other trade partners. The new reforms aim to move away from mass production of scale-based and low-skilled labourintensive goods (e.g. assembly) and to place greater emphasis on services to consumers (facilitating high-quality services to production processes in value chains) and less extreme emphasis on export-led growth at all costs and more domestic consumption by a rising middle class, supported - among other things - by more welfare state benefits, also for domestic migrant workers. These reforms are of course first of all good for China, but they also accord well with the opening up in services (now often restricted or banned for foreign providers) and investment, key offensive interests of the EU.

In actual practice, reforms are always difficult to implement and China is no exception to this rule. Indeed, the resistance is likely to be deep, given the privileged status of SOEs (state-owned enterprises) and the overall protection of many services sectors. Also, China is more protectionist in FDI, despite the significant inflows and rising stocks, than any other relevant country, including other BRICs. Conscious of this all, top Chinese officials and ministers often suggest that external pressure would be helpful in accelerating domestic reforms. In a FTA, with the EU as a partner, it is possible that this may be realised in an acceptable fashion for both sides.

Chinese trade policy and FTAs	China's trade policies have been active on the bilateral front, much less with respect to WTO plurilaterals and very little in the Doha Round. Its FTAs have typically been shallow (that is, focused mostly on tariffs, less or not at all on regulatory barriers). In terms of investment treaties, most of them are on narrow investment protection and not, or hardly, on effective market access (especially for services). But there are new signals, e.g. in its FTAs with Australia and Korea, which – in a staged approach – pretend to go into services and some regulatory issues in a WTO-plus fashion. As for investment, a recent treaty with Canada (Foreign Investment Promotion and Protection Agreement or FIPA) seems to show a new preparedness to become more ambitious, specifically with regard to the movement of natural persons, linked to business, such as allowing senior management positions no longer to be restricted by nationality (basically, like CETA and TPP). This is hopefully preparing the ground for the greater ambition required when the EU would negotiate a FTA with China, following the current investment (CAI) negotiations, or if a CAI would eventually be integrated into an ambitious FTA (as was done in CETA and in the EU-Vietnam FTA).
Bilateral trade and FDI	Bilateral trade and investment trends between China and the EU are indeed remarkable. The US dollar value of total bilateral goods trade since 1995 has increased by a factor of ten, reaching some $600/6526$ billion (at the April 2016 dollar/euro exchange rate) in 2014! Services trade (mode 1 of the General Agreement for Trade in Services or GATS) is strongly rising (to over $70/661.4$ billion in 2014) over the past decade or so, despite restrictions in some sectors and the adverse effects of the crisis. The balance in goods trade leans heavily in China's favour, if only because barriers on the EU side are lower than the relevant ones in China for goods that EU companies specialise in. The trade balance in goods hovers around a \$200-plus billion (€175-plus billion) deficit for the EU ever since the crisis began (\$230/€201.6 billion in 2014); in services, the EU has a surplus, which recently climbed rapidly to some \$12/€10.5 billion in 2014.
	Figure ES 1. Total trade EU28-China in goods, 1995-2014
	500 700 File File File File File File File File
	300
	-100 485 486 481 486 489 400 201 201 201 201 201 201 201 201 201 2
	-300
	-500 TOTAL TRADE — TRADE BALANCE EU28 Data source: UNCTAD (2015).

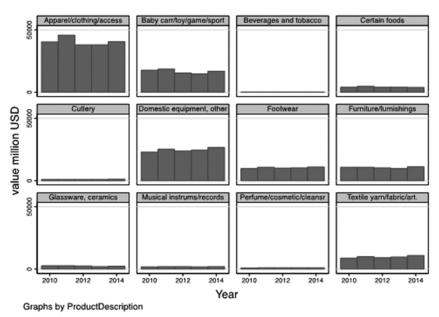




Data source: OECD Statistics (2015).

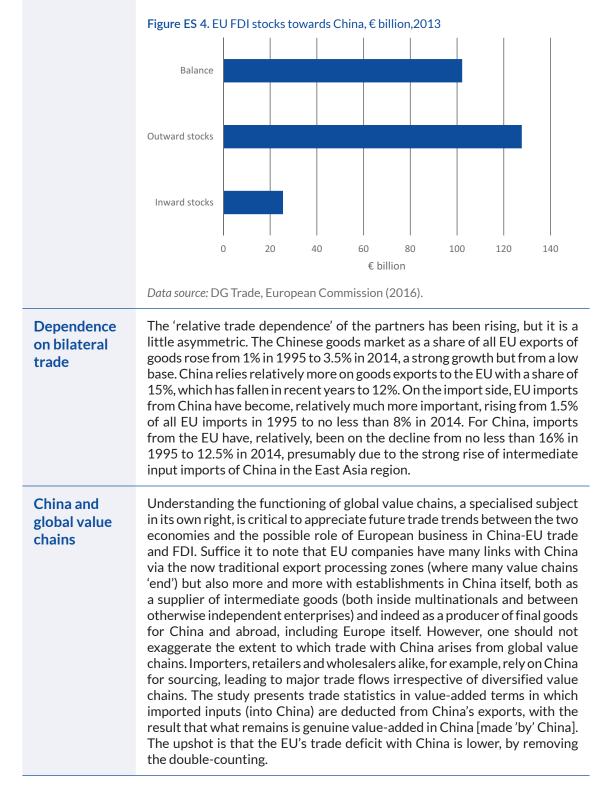
The EU's main imports from China consist of mass consumption goods (with sharp prices, helping EU consumers), but China has gradually accomplished a more balanced sectoral position. The EU exports in particular machinery and transport equipment (no less than \$126 billion in 2014) and chemicals, but increasingly (albeit from a low base) also agro-food products.





Source: World Integrated Trade Solution (WITS) (UNCTAD) trade data, mapped to ISIC3 categories.

The EU's 2013 FDI stock in China is around €130 billion, with China's FDI stock in the EU steadily growing to some €27 billion in 2013. Altogether, trade and investment interdependence between China and the EU has become of major importance.

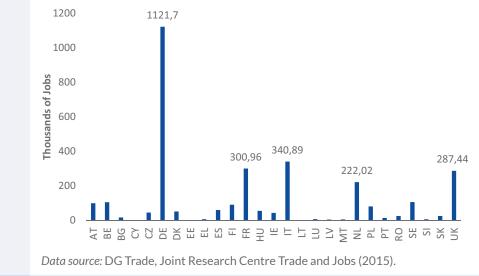


11

Jobs and the Chinese connection

Value-added statistics also facilitate the linking of EU jobs directly with the value-added of exports to China, and even the jobs linked to imports from China. The study shows that five EU countries have prominent job figures connected with EU-China trade (in goods), with Germany having as many jobs linked to its exports to China [1.1 million] as the four EU countries next on the list [France, Italy, the Netherlands and the UK] together. However, imports from China also provide lots of jobs in various ways. These imports may consist of intermediate goods but also, and for large import values, of so-called mass consumption goods, creating numerous jobs in the distribution sector. In Figure E.S. 5, services are included insofar as services have been incorporated in goods exported.





DESIGN AND SUBSTANCE OF AN EU-CHINA FTA

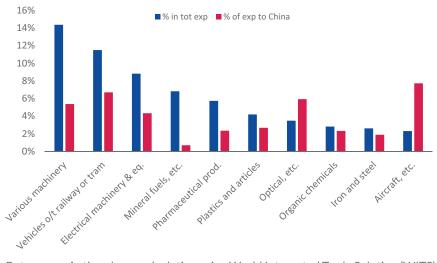
After first discussing the appropriate design of a FTA between the EU and China, the substance of a 'deep and comprehensive FTA' is elaborated in nine chapters, besides a brief excursion to trade defence instruments (TDIs), such as anti-dumping (which are not a genuine FTA topic). The nine building blocks of such a FTA are: (1) bilateral tariff removal in industrial goods; (2) removal of tariffs and enlarging tariff-rate quotas (bilaterally) for agro-foods; (3) reducing technical barriers to trade; (4) reducing sanitary and phytosanitary (SPS) barriers in ago-foods, (5) free or improved market access in services, (6) (non-discriminatory) access to public procurement, (7) TRIPs-plus regulation and enforcement of IPRs (intellectual property rights) and generous recognition of geographic indications (GIs), (8) market conformity of state-owned enterprises (SOEs) and other competition issues, and finally (9) investment (both protection for investors and market access).

What kind of FTA: Shallow, or deep and comprehen- sive?	The design of FTAs is based on a preliminary choice: to make either a 'deep and comprehensive' FTA or a 'shallow' one. This black-and-white contrast is perhaps less relevant in today's world economy but it is helpful to clearly identify the choices to be made. A 'deep and comprehensive' FTA is very wide in scope of trade and investment areas, covering all relevant areas of a regulatory nature that can unnecessarily raise the cost of market access. It is also 'deep', that is, with firm legal commitments and enforcement options that are credible to market players, as well as with joint monitoring, options for appeal and possibly even a 'living agreement' allowing a further 'deepening' of commitments over time. A 'shallow' FTA focuses mainly on tariffs and (say) origin rules, possibly services (but barely or not beyond GATS commitments of partners) and sometimes other chapters of a regulatory nature but solely with 'best endeavours' and mere cooperative intentions beyond the regulatory statutes of the WTO, e.g. the technical barriers to trade (TBT) and sanitary and phytosanitary (SPS) agreements.
Why a deep FTA is good	China and the EU will first have to agree on this fundamental design issue, prior to a possible scoping exercise as the basis for trade negotiations. For China, this will present quite a challenge. Although it has begun experimenting with slightly deeper FTAs – but only in a staged approach – they are far removed, as yet, from the typical design that the EU will have in mind. On the other hand, it is surely in China's interest. Precisely a 'deep and comprehensive' FTA is an ideal mechanism allowing China to expose some of its goods and many services sectors to competition, as well as to support better regulatory practices in several domains. This would be a perfect fit for its domestic reforms and would undoubtedly encourage them. The argument that an ambitious FTA would be 'unbalanced' (for China) has to be assessed with care. One might just as well hold that a shallow FTA is unbalanced for the EU given its comparative advantages.

What goods dominate in bilateral trade?

EU-China goods trade is huge (together some \$640 billion in industrial goods and \$21 billion in agro-food in 2014). The top-three industrial sectors exporting to China are 'various machinery' (22.5%), automotive (22.5%) and electrical machinery (11%). EU imports from China are highly concentrated with nearly half in electrical machinery and various machinery. As far as consumer goods are concerned, Figure E.S. 3 shows that imports of apparel /clothing, baby articles and toys, sporting goods, domestic equipment, footwear, furnishings and textile fabrics are important.





Data source: Authors' own calculation using World Integrated Trade Solution (WITS) data.

Is China moving up the ladder?	One begins to discern patterns of intra-industry trade between the European Union and China, at least at the (high) two-digit level of sectors. This is measured with so-called Grubel & Lloyd indices [from 0 to 1, the latter showing that intra-sectoral two-way trade is at the maximum]. The relevance of these indices is that they are a first indicator that China is moving up the ladder of comparative advantages, away from mere assembly. The study uses broad (two-digit) sectors for these indices – to verify this in more detail would require elaborate analysis at the 4-, 6- and 8-digit level of sectoral activities. In 2014, three sectors have indices above 0.3: optical instruments (etc.) of 0.9 (which is extremely high), for various machinery (0.64) and electrical machinery (0.35); automotive remains just below with 0.28. Interestingly, this intense intra-sectoral trade takes place despite considerable tariff barriers in these areas.
Other signs of moving up	Another way to underpin empirically that China is broadening its sectoral industrial export base and moving 'up market' is the revealed comparative advantage (RCA) index. With sectoral RCAs above 1, one can trace (relative) sectoral exports better than the world average. The study finds that (i) not only traditional low-skill intensive sectors have Chinese RCAs (far) above 1, such as clothing, footwear and intermediates made from hides and skin, but also machinery and electrical equipment (a very large trade category, in which EU industries are world leaders, except for electronic mass-produced goods like computers, etc.); and (ii) the RCAs of other industries are increasing recently, such as chemicals, plastic/rubber products, ceramic

goods and metals (although transport equipment is decreasing).

Tariff peaks are the real hurdles	Industrial (applied) average tariffs are a little below 4% for the EU and 8% for China. Although double the EU average, the Chinese applied tariff average is not a major problem as such. The real problem with Chinese tariff protection arises from the (applied) tariff peaks, with over 1,400 8-digit peak tariffs as against 45 for the EU [a peak tariff is defined by the WTO as higher than 15%]. With no less than 940 of these in specific clothing items – no longer a significant export item for the EU – the focus should be on comparative advantage sectors of the EU, such as various machinery (66 Chinese applied peaks), electrical machinery (93 peaks) and automotive (171 peaks). China faces 26 EU tariff peaks in footwear and another 19 in automotive and other transport equipment. If one considers the spread of these Chinese peaks in tariff ranges above the 15%, in various machinery, electrical machinery and automotive, the peaks are often 20% or higher still, with quite a few tariff peaks in the 25-35% range, or 35-45% range and a few even higher than 45% (example HS 8711, motorcycles). The EU simply does not have such tariff peaks outside agro-food.
A word on trade defence instruments	Some border duties are a result of the application of so-called 'trade defence instruments' (TDIs), the most important one being anti-dumping duties. Such TDIs are highly country-, product- and firm-specific. Both China and the EU have been active on the TDI front for many years, but the EU has targeted China much more than China the EU. The share of China being targeted in anti-dumping cases (as a % of all cases by the EU) has gradually moved up since 2001 (when China became a WTO member). In 2014, no less than 47% of all EU anti-dumping measures in force were against a Chinese enterprise (sometimes with firms from other countries). For China (in 2013), EU companies were targeted in only 15% of cases. Still, TDIs are not normally part of FTA negotiations. In 2016, the debate on TDIs with respect to China is dominated by the so-called MES (market-economy status in anti-dumping) question: Should China no longer be treated as a non-market economy in anti-dumping procedures but rather as a country (economy) like all others, that is, accepting internal Chinese market prices as driven by market processes? Again, this is not a FTA question at all. The present study incorporates a short review but only in an informative sense. Why? Because the present climate, dominated by MES debates, is less than ideal for initiating exploratory talks on a possible FTA and this has to be realised. On the other hand, the extreme overcapacities in steel, aluminium and ceramics that China has allowed to develop artificially and for so long, have such important negative international spill-over effects (also, but not only, in the EU), that, MES or not, it is in the interest of all major trading partners – first of all, China itself – to address them firmly without delay, no matter how painful.



Market access in agro-food	Market access in agriculture has traditionally been more difficult for very many WTO members almost everywhere across the globe. At first, China went even further. For centuries, the country has pursued self-sufficiency in agro-food, but gradually, it is changing its position, in part, because greater prosperity has generated more sophisticated demand than is less easily satisfied locally, and, in part, because food quality and safety are not fully trusted by Chinese consumers. The two traditional instruments of trade protection in agro-food are tariffs and TRQs (tariff rate quotas). Weighted MFN-applied tariffs in agro-food are 12.3% for China and 6.9% for the EU. EU and China's bilateral agro-food exports are more or less balanced, although the trend shows that EU bilateral exports are growing faster (and reached a small surplus in 2014). The principal EU exports are beverages, meat and cereals, whereas China exports fish, products of animal origin and edible vegetables. However, many subsectors for both Parties participate in bilateral agro-food trade.
More on agro-food tariffs	Tariffs for agro-food can be high. For the EU this is the case for dairy products (8.1%), processed agricultural products (PAPs; 14%), sugar and confectionary (11.4%) and beverages & tobacco (23.1%). For China these two-digit tariff averages are always higher, not least in sectors of EU export strength, such as beverages (26%), sugar & confectionery (25%), PAPs (17%), cereals (etc.) (18%) and dairy products (13%). Also, for various animal products, where EU tariffs are low, Chinese tariff averages hover around 11%-12%.
Tariffs peaks in agro-food	Tariff peaks are relatively numerous. The EU and China exhibit some striking differences. Whereas the EU's protection is very targeted, with 144 (applied) tariff peaks at the 8-digit level in fish, 21 in fruit, 120 in prepared meat or fish and no less than 431 for prepared fruits & vegetables (with other subsectors having virtually no peaks at all), China has spread applied tariff peaks over practically all agro-food sectors. Two conspicuous subsectors are prepared fruit & vegetables with 104 peaks and fruit with 52. Going to the 6-digit level, one observes that the EU has 60% of its tariff peaks in the 15-20% range (China only 17%), implying that Chinese peaks are very often higher than EU peaks, if and when they are in the same subsector.
Why tariff- rate quotas matter but less	TRQs are also quite different between China and the EU. A TRQ maintains a low or zero tariff for a certain volume of imports [the quota], and a high (or prohibitive) tariff for beyond-quota imports. On the one hand, the EU is far more protectionist than China in this respect: the EU maintains 269 8-digit TRQs as against China, with 47. Second, whereas the EU regime is very complicated (and partly seasonal as well), China's TRQ regime is simple. But for the FTA, the good news is that only three subsectors overlap in terms of TRQs: cereals, milling products and sugar (etc.). This implies that one another's bilateral exports are not or hardly hit by TRQs. For example, Chinese TRQs for wheat, cotton, rice and wool account for most of the TRQs, and these are not offensive interests for the EU.

TBTs can severely hinder effective market access	Technical barriers to trade are an important issue in EU-China goods trade. Both Parties are WTO members and hence subscribe to the WTO TBT Agreement. This includes a notification system to the WTO TBT Committee. The rates of notification (quite high for China, a little less high for the EU) are not a good indicator for the frequency and/or costs of TBTs. The so-called 'specific trade concerns' are about notifications that raise TBT concerns with other WTO members. The EU has introduced 40 such concerns with respect to China (quite high for the WTO) and China has raised 26 such concerns with respect to the EU. The costs of TBTs have to be added to other market-access costs for industrial exporters. There are (rough econometric) estimates in the economic literature of such TBT costs (or, more precisely, any extra costs on top of tariffs, so this may include SPS measures or others), but these estimates are to be taken with several grains of salt. Nonetheless, what is clear is that these extra costs for market access are much higher than average tariffs, and hence, they often add significantly to the costs of market access. In subsectors with a higher (say, a peak) tariff and TBTs, it might mean that effective market access is not feasible.
Systemic TBT issues in China	Chinese TBTs and EU TBTs appear to be not very different when looked at on a case-by-case basis, in their technical details, but there are differences in the two TBT regimes. By far the most important difference is systemic: the overall Chinese regime (governance) of technical regulations, standards and conformity assessment has emerged from a planned, top-down regulated economy, at first in relative isolation. The planned economy and the isolation are no longer true, but their legacies are found everywhere and shape many decisions and non-decisions. There is even a fundamental problem of terminology (for example, what a 'technical standard' really is) which is not in line with the TBT Agreement and its annex, applied by standardisation bodies worldwide.
	China – as part of this legacy – does not have standardisation bodies like most other WTO members have. These are private bodies creating market-driven standards, which – at times – can also be employed for regulation. Until 2015, standardisation was heavily done by ministries. The state influence is basically omnipresent, precisely because business standards bodies with open-inquiry procedures are absent. There is also fragmentation of the Chinese [not-so] single market as well as a legacy of far too many institutions, ministries, agencies and others having some ill- defined regulatory or standardisation competence (which they are loathe to give up), with uncertainty and unproductive overlap as a result. The Chinese leadership has therefore decided to start a genuine overhaul of the system, begun in 2015. This study makes an attempt to appreciate the nature and consequences of this systemic reform. However, the reform plans do not include the creation, in the market, of private, independent standards bodies like CEN/CENELEC or more or less similar US bodies.

TBT details and examples	Helped by systematic, annual reporting by EU businesses in China, this study attempts to illustrate many examples of TBTs, including problems of conformity assessment. On the Chinese side, no such reporting is known to exist, but WTO reporting does provide some insights into the character and magnitude of the barriers Chinese exporters face in the EU. China does not have a RAPEX (Rapid Exchange) alert system for dangerous non-food goods for consumers or workers. The EU system has functioned for one and a half decades now and China is by far the largest culprit in these reports. For consumers, in 2014, notifications of such dangerous goods coming from China were far ahead of any other country [1,462 as compared to the second country, Turkey with 66 and the US with 60], and this has been a trend for the past decade. The EU and China have set up several technical cooperation programmes to address these problems. For workers, there were (in 2014) 37 notifications for China as against 25 for all other countries together.
Systemic SPS issues in China	SPS measures on food, feed and plant health, although different from TBTs in some respects, show similarities with the systemic issues in TBTs. It is clear that China struggles with (technical) capacity questions, and the EU has set up an extensive capacity-building programme with China in an attempt to bring the technical backing of authorities in SPS issues up to standard throughout this large country. In an unusually frank style, the WTO has criticised China's approach to SPS issues thus far, focusing again on systemic questions. The thrust is that there are too many state organs at several levels of government and too many laws and regulations, without much transparency or discipline (e.g. long and indefinite waiting times). An unusual number of products are subject to possible SPS measures (indeed, some 2,032 tariff lines at the 8-digit level).
SPS details and examples	Again, WTO notifications are not a good indicator of SPS barriers; rather, they serve as an open invitation to other WTO members to be available for consultation, should this be seen as necessary. Nevertheless, China is an active notifier (but so is the US). It is striking that China seems incapable of solving outstanding trade irritants in SPS in a speedy manner: both the US and the EU have old trade concerns that have still not been addressed effectively. The top three concerns in more general terms with respect to China are: (i) insufficient respect for international 'standards' from international organisations of which China is a member (e.g. Codex Alimentarius, the OIE for animal health and IPPC for plant health); (ii) very lengthy, complex and non-transparent application procedures; and (iii) 'embedded discrimination' in several ways. For the EU, this latter is manifested principally in China's lack of recognition that, in SPS issues, overwhelmingly, the EU is a single market with fully harmonised rules and inspection (nonetheless, China goes member state by member state, without any serious justification). The study lists specific EU and Chinese trade concerns in SPS matters. For the EU exporters, procedures can be extremely costly (a detailed example on accessing the meat market in China, after basic approval has already been granted, is provided in the full study).
Export potential in agro-food to be tapped	It is clear that the tough transition from the old planned economy, together with China's extremely rapid growth (which has catapulted the country in a short period to expectations of world levels of compliance), are the main reasons for these problems. It is important to urgently address SPS barriers because the incipient Chinese demand for EU agro-food products is very high, despite the extra SPS costs and often-high tariffs. The potential is only beginning to be tapped.

Services trade restricted, mostly by China	EU-China cross-border services trade is still underdeveloped. Moreover, mode 3 of the General Agreement for Trade in Services (GATS) – essentially FDI with a view to supply services locally – is also severely restricted (see further). The EU's barriers to cross-border services trade are usually lower (or absent), but formally the EU maintains some barriers legally as a form of reciprocity. These EU barriers could easily be lifted in a FTA. There are two STRI (Services Trade Restrictiveness Index or STRI) indicators to measure the restrictiveness of services regulation in OECD/G-20 countries. The study shows that (i) the regulatory restrictiveness of Chinese services markets is much greater than that of the EU and (ii) some services markets in China are de facto closed for investors but also for cross-border trade. However, and despite an enormous database underlying them, these STRI indicators (from the World Bank and the OECD) have serious imperfections, such that, for transport and telecoms, they contradict each other in the case of China and the EU. Therefore, one should be cautious in relying on them too much.
What lies behind Chi- nese restric- tiveness in services?	The study attempts to comprehend the serious transition problem China also faces in the case of services. It is far behind in services as a share of GDP, even compared to other BRICs, presumably due to its emergence from a planned economy (where services 'did not matter') as well as to the emphasis on export-led growth via assembly and (at first) little else. A cardinal problem for China is that, in order to make such a transition effectively, as one remembers from the experience in Eastern Europe, a hard, credible and consistent regime should reside at the basis of such deep reforms. To create such an 'economic constitution' from within, to serve as a proper, pro-competitive regulatory 'anchor' in the rough waters of transition, is next to impossible to expect. At the time of the East European transition, this 'anchor' was the EU and it was fully accepted as authoritative due to 'pre-accession' and future EU membership. In China, effective transformation has to be based on internal political forces, lingering (but 'former') institutions and legacies. Amongst these legacies are the SOEs, which are very prominent in services markets, via regulations (and bans for others) and extreme market power, not to speak of their privileged access to finance and top political support (directly from the Party).

	Details on services restrictions, also in Chi- na's recent FTAs	This study also goes into practical details. It comprises a list of regulatory and related aspects of services in China, with attention paid to the original GATS commitments of China, market access issues, national treatment, SOE presence and miscellaneous aspects. This survey covers 14 broad services sectors. A table surveying possible access barriers for Chinese companies to the EU (in seven sectors) based on WTO information is included as well. In order to gauge the prospects for a 'deep and comprehensive' FTA with China in this area, an attempt is made to compare two recent FTAs which seem relevant as a comparison: the China-Korea FTA of 2015 and the EU-Vietnam (also emerging from a planned economy) FTA of 2015. The comparison deals with eight aspects including e.g. whether or not it is combined with investment, what services sectors are in, national treatment and MFN as well as competitive safeguards. One inference is that China is beginning to shift to slightly more ambitious FTAs, but cautiously as well as in stages. The China-Korea FTA does not incorporate a SOE chapter, but the EU-Vietnam agreement does, although not (yet) as ambitious as, for example TPP has, even though Vietnam is also a TPP signatory. A FTA between the EU and China cannot possibly be imagined without an ambitious services chapter (and – not to forget – in combination with drastic mode 3 (FDI) liberalisation, discussed below). At the same time, Chinese reforms would not be serious if far-reaching opening-up of services would not be accomplished. China can hit two birds with a single stone: bilateral (and perhaps also plurilateral) liberalisation of access to services markets in a FTA with the EU.
	Public procurement: no level- playing field whatsoever	The EU and China have very divergent regimes for public procurement. The EU adheres to the plurilateral WTO Government Procurement Agreement (GPA). In accordance with its WTO Accession Protocol, China started negotiations to accede to the GPA. After six offers from China, the negotiations are still ongoing. Essentially, China is closed for foreign competitors bidding for public procurement contracts, except in cases of shortages of technology or otherwise. Chinese companies have a much easier time in the EU and manage to obtain contracts in the public procurement market for substantial amounts. For example, in 2013, Chinese companies acquired \in 5.25 billion worth of contracts for work in the EU; while the business turnover of completed works reached \notin 4.01 billion. China has concluded 13 FTAs, but in none of them has public procurement been incorporated. Market access for public procurement is not found in any other bilateral, regional or multilateral agreement signed by China. Although access to EU procurement markets is relatively unproblematic, Chinese business costs and risks. Still, EU companies in China are not granted the reciprocal treatment that they understandably wish to enjoy. They face 'buy-China' policies in China and are confronted with 'offset' requirements such as local content and technology transfer. These are exactly the areas where China has been trying to make improvements in its GPA offers, but it seems that the concessions are not sufficient.

China joining the GPA, but not yet	Looking at the six GPA offers that China submitted, the concessions made were extensive in three aspects, i.e. (i) widened coverage of procuring entities and (ii) of the relevant goods, services and works, as well as (iii) lowered thresholds. Additionally, China went for a 3-year, instead of 5-year grace period to implement the GPA upon accession. Moreover, in China's 6th offer, activities in the fields of drinking water, electricity, energy, transportation, telecommunications and postal services have been offered, in late 2014, for procurement coverage, which is symbolic since these sectors are typically SOE-dominated. One has to read this offer with the knowledge that SOEs have not been offered as covered entities in China's GPA offers to date. Addressing the SOE question in earnest is a crucial offensive interest of the EU. What EU businesses insist on is that China offers more entities at more administrative levels and in more provincial territories with even more lowered thresholds. All these demands are in addition to the EU's insistence on establishing a more transparent and non- discriminatory institutional framework.
Public procurement laws for budget control, but the 'public market' is also a big trade issue	It is too little realised in the EU that the public procurement regime in the EU and in China have different purposes. The EU enforces transparent, fair and competitive public procurement across the EU's single market in order to generate (equal) business opportunities, drive economic growth and create jobs, but of course also to ensure that tax money is spent efficiently. In the old planned economy, where all property was collectively owned and given the overwhelming influence of the state in the past, regulating the use of public funds appeared redundant. Therefore, before the 1980s, there were no public procurement laws/regulations. Still today, public procurement is not seen as a component of trade, but rather as a device for budgetary control and discipline, and therefore a means to eliminate corruption and to use public funds more effectively. Negotiating the country's GPA accession has served as an internal drive for China's institutional reform of its public procurement market, now governed by various laws and implementing regulations, completed with a centralised website to publish information pertaining to tenders at central and local government levels.
	A mechanism of checks and balances has been installed, complete with a public-private-partnership model of cooperation in procurement of services and works. The country is now working to tackle accounting irregularities in the area of public procurement, as is seen from the Implementing Rules of the Government Procurement Law. One can appreciate these internal developments as one of many pillars of domestic reform. Still, China cannot continue to ignore that its public purchases and works represent a giant market that, in WTO circles, is not expected to be closed completely. And the suggestion of a FTA with the EU must imply the genuine preparedness to regard public procurement as a major trade issue as well. A FTA with China would be on a GPA-plus basis, if the EU has its way. Therefore, it is indispensable for China to join the GPA first, as a stepping stone to negotiate public procurement in an EU-China FTA.

Successful IPR cooperation, yielding sound (Chinese) IPR laws	Intellectual Property Rights (IPRs) are important to the EU's economic growth. It is estimated that IPR-intensive sectors account for around 39% of EU GDP (worth some €4.7 trillion annually) and, taking indirect jobs into account, up to 35% of all jobs. China, although having achieved remarkable progress in IPR legislation in the three decades since the early 1980s, is still confronted with serious challenges of weaker IPR protection and enforcement, which adversely affects the country's ambition of becoming an innovative economy. EU businesses in China complain about unpredictable administrative enforcement, the patent linkage practice, uncertain admissibility of supplementary data for pharmaceutical product patent applications, weak enforcement on theft of trade secrets and copyright ownership. Chinese authorities have actively engaged European businesses via public consultations and suggestions to improve its IPR legislation. However, the principal problem is implementation and enforcement. Chinese businesses in Europe have no complaints against the EU's IPR protection regime. Chinese enterprises, such as Huawei Technologies and ZTE Corporation, for example, are top patent applicants under the EPO (European Patent Office) filing system.
FTA can follow a TRIPS-plus approach, but what about enforcement?	IPR chapters are found in all of China's recent FTAs, while the depth and breadth of protection measures are on the increase in recent years. In 2015, the IPR chapters in the China-Korea and China-Australia FTAs provide in great detail the degree and scope of IPR protection, taking a 'TRIPS plus' approach. The EU's IPR chapter in its FTAs is consistent in its position, which is to "complement and specify" the rights and obligations under the TRIPS Agreement, but with a much wider protection scope encompassing basically all international IPR treaties. The presumption is that the EU and China should be able to conclude an IPR chapter in an FTA because China's IPR policy/law is ambitious in providing protection that is in the country's best interest in transforming its economy into one driven by innovation. The only problem, but a major one on the Chinese side, is implementation (delays, inconsistency and enforcement). Counterfeiting has consistently turned out to be a problem when goods arrive at EU borders: Chinese goods (to be) imported into the EU seem to be champions in counterfeiting (some two-thirds of all detected cases).
Constructive approach to Gls	The EU, as the originator of geographical indicator (GI) protection, has taken the lead worldwide in identifying and protecting their GIs. China, as a latecomer to GI protection, has a range of local products corresponding to the concept of GIs, but only a few of them are already known or protected globally. At the end of 2012, 10 Chinese food names received protected status in the EU as GIs, as a result of the EU-China Geographical Indications "10 plus 10" pilot project. Since then, there has been no application for the protection of extra Chinese GIs. GI protection in China is handicapped by fragmented registration and protection systems, which are often embroiled in disputes among different interest groups of businesses.

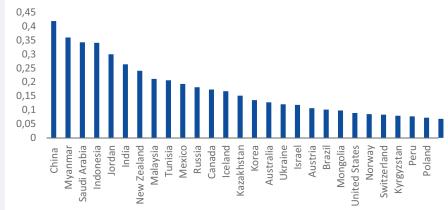
EU-China bilateral GIs with great opportunities	China ranks in the EU's top five of GI exports (agricultural products, foodstuffs, wines and spirits).The EU is negotiating a bilateral agreement with China on the protection of GIs, aimed at providing protection in China of a first list of EU GIs with 100 names for agricultural products, including dairy and meat products. China is now the world's fourth-largest importer of food, and the food and grocery retail market is set to grow by 15% annually. Additionally, as Chinese domestic consumers have deep concerns over food safety and the quality and origin of ingredients, EU firms are present with excellent opportunities to make huge commercial gains, if only they can penetrate the market (see tariffs, TRQs and SPS) and if the EU and China can agree to execute effective measures to protect its GI products.
China's FTA approach on GIs so far	Among the 13 FTAs that China has concluded so far, bilateral GI protection appears as a component only in the FTAs with Peru, New Zealand, Australia and Switzerland. More often than not, however, the provisions look 'best- endeavour' style, without substantive commitment. The EU and China are presently negotiating a 'comprehensive' agreement on GIs, which undoubtedly goes further. Besides strengthening cooperation in the field of GI protection and supervision and combating counterfeiting, it should pave the way for more European GI-protected goods to penetrate the Chinese market, and vice versa on a reciprocal basis. Once completed, this would render a FTA easier to negotiate as well.
The CAI and EU-China investment treat	The EU-China negotiations on a Comprehensive Agreement on Investment (CAI) started in September 2012. The idea is to first negotiate a CAI and then to consider the exploration of a FTA, for the EU under reform conditions. In January 2016, the two Parties announced there would be a wide scope of the CAI negotiations, which should improve market access opportunities for their investors and guarantee that they will not discriminate against their respective companies, as well as to provide for a high and balanced level of protection for investors and their investments. Key challenges of the (mainly Chinese) regulatory environment, relating to transparency, licensing and authorisation procedures, are also on the negotiation table.



Why the CAI?

The two primary objectives of a CAI are to achieve market access for the EU and for Chinese investors (to each other's market) as well as modern investment protection. The far-reaching restrictions for foreign investors to enter and/or do business in many Chinese services and goods markets form a powerful motivation to negotiate a CAI. Data reveal that China has the most restrictive FDI regime among 58 countries, including all OECD and G20 countries, and covering 22 sectors, such as agriculture, mining & quarrying (including oil extraction), manufacturing, oil refinery & chemicals, retail and transport. Thus, for China to create a level playing field for foreign companies already in China or for potential entrants is a very tall order. A second EU motivation is to overcome the fragmentation of investment protection for European firms due to national BITs with China, some of which are also hopelessly outdated and were concluded in the mid-1980s.

Figure ES 7. FDI restrictiveness index, 2014



Data source: OECD Database(2016).

Deep asym-Whereas EU companies face serious access problems in China, Chinese companies have relatively easy access to the European market, although metry in complaints do exist, especially in relation to the movement of natural **FDI** market persons (mode 4, GATS). Investment obstacles in China are of two types. access The first type consists of the overall Chinese investment strategy, based not so much on principles of free markets (with an exception here or there), but rather on categorising FDI in four classes: prohibited, restricted, allowed and encouraged. This regime is adapted over time so that it amounts to an industrial strategy or what are called 'structural policies' fitting the five-year plans of China. Therefore, access issues are found in the first three classes in various ways. The second type refers to 'post-establishment' when EU (and other foreign) investors experience an uneven playing field for doing business, i.e. a myriad of policy restrictions and forms of discrimination.

Can the CAI bridge the ex- pectation gap (from today's FTAs)?	China is keen to further open up and also wishes to solicit 'external pressure' to push forward reforms, but it seems to be of two minds. Comparing the investment chapter under respective FTAs concluded by China and the EU, for China, substantive provisions on market access are left for further negotiations post-FTA. Moreover, what China has agreed to offer in terms of market access (pre- and post-establishment) typically reduces the EU's stance by half. For example, the 'pre-establishment' phase of investment is not covered under national treatment, while what is covered are "expansion, management, conduct, operation and sale or other disposition of investments in its territory". "Performance requirements" comply with the Agreement on Trade-Related Investment Measures (TRIMs) which are only applicable to trade in goods. In contrast, the EU wants cross-border "trade in services" as well as least-restrictive local services provision in most services markets to be included as a priority in the FTA.
Linking the CAI to the FTA?	The EU is determined to see a good outcome from the CAI negotiations, which, in turn, serves as a prior condition for beginning to explore a FTA. As for China, it should be expected to pursue its 'opening up' based on its own agenda. This agenda is full of pro-market reforms in very general terms but with, so far, very little to show in actual practice for business. Therefore, when pressing ahead with its CAI demands, the EU ought to ask itself what effective leverage it has. Will integrating CAI in a FTA not be a more sensible and effective option, or, would that further postpone the effective arrival of improved investment market access by a few more years?
State-owned enterprises: The biggest legacy prob- lem	State-owned enterprises (SOEs) are a special but very important subject in EU-China trade and investment. A FTA cannot be negotiated without addressing in earnest this major legacy problem in China. SOEs, far from being treated in China in a non-preferential way and solely under commercial considerations (Art. XVII, GATT), are still strongholds of the old Chinese planning and economic system, despite several significant reforms in the last three decades. SOEs, which wield enormous market power in a series of large-scale industries and a range of services markets, are protected by a battery of restrictions (or outright bans). Their CEOs have received special blessings from the Party, they enjoy privileges in access to finance in a number of complex ways and have recently become frontrunners in China's FDI strategies abroad. But their record in productivity growth record over time is poor: private firms' productivity in China grows twice as fast, despite all the facilitation that SOEs enjoy.



SOEs, new to China's FTAs	Economically and politically, SOEs are as much a liability as a formidable force. Three SOEs from China rank in the top-ten of the Fortune-500. Many SOEs are giant firms. In some sectors, however, they have created and maintained unbelievable excess capacities (in aluminium, ceramics and, above all, steel; in steel, with suggested loss coverage of many billions, possibly as high as €30 billion a year, if no open markets are found). If China wants to introduce effective and profound reforms, it cannot avoid the SOE issue. Whether for ideological reasons, or plain lobbying and vested interests, the SOEs are not formally part of the 2013 reform roadmaps, as announced so far.
	SOEs are also a liability in trade and investment relations. The China-Korea FTA does not incorporate a SOE chapter, although the intense Korea-China economic intercourse is profoundly influenced by the highly distortive and restrictive business environment. The EU and e.g. TPP (with a proper SOE chapter) are adamant that the SOE question is seriously settled once and for all, for the good of China (a kind of pressure it often says it welcomes) and for undistorted market-driven economic relations with WTO partners.
SOEs, a serious liability	Domestically, European businesses in China are discriminated against – there simply is nothing like a level-playing field vis-à-vis Chinese SOEs, while Chinese businesses in the EU enjoy national treatment, with access to judicial review if necessary. So, EU businesses in China express frustration over the lack of market access as well as the multitude of restrictions they face and long for reciprocity. Internationally, Chinese SOEs are the frontrunners of the country's global investment, helped by guaranteed access to the government coffers [including frequently provincial and local ones] which seem bottomless. Their success in FDI may sooner or later backfire and begin to undermine the benefits from international trade and investment based on non-discrimination and respect for market principles.
	Figure ES 8. Share of SOEs among the top 10 firms in 16 selected countries (%)
	100% 96% 90% 88%
	80% 67% 68% 69%
	70% 59% 5 9%
	60% 48% ^{50%} 50%
	30% 37% 37%
	30% 20% 11% 13% 15% 16% 17% 23%
	20% 11% 13% 15% 10% 17%
	Gernand findend Greece Heard France Baber Thailend Norwal Brail India Arabia Indonesia Russia China Saudi Arabia Indonesia Russia China Saudi Arabia Indonesia Russia China United Arab Indonesia Russia China United Arab Indonesia Russia China Russia China Russia China Russia China Russia
	Note: Only countries with shares above 10% are shown.
	<i>Source</i> : P. Kowalski et al. (2013), "State-owned Enterprises: Trade Effects and Policy Implications", OECD Trade Policy Paper No. 147, OECD, Paris.

SOEs and Chinese re- forms	Following the Third Plenum in 2013, China has pledged to reform its SOEs, reducing the subsidies they have enjoyed and diluting state holdings. But it remains to be seen how China will implement all these measures effectively, within the set timeframe up to 2020. SOEs impede China's implementation of an effective competition policy, too, since they do not seem to be subject to competition policy, following Art. 7 of the Anti-Monopoly Law (AML) of 2008. In the absence of specific implementing rules, this defeats the purpose of competition policy.
EU-China cooperation on anti-trust is fruitful	Otherwise, China is making rapid progress with competition policy. The EU and China have worked together in this field for many years and it is now beginning to show, in particular with respect to merger control. AML covers monopolistic operations having anti-competitive effects on the Chinese market (that is, operations within China as well as activities outside China, but also affecting the domestic market). EU competition law serves as the main reference for the AML on restrictive business practices, abuse of dominant position (cf. Arts.101, 102, TFEU) and the EU merger Regulation.
But deeper commitments and subsidies disciplines are desirable	EU businesses complain that China's competition policy (AML, in particular, with respect to mergers) principally targets foreign businesses. But after a careful reality check, this allegation appears to hold little truth. Other complaints focus on implementation practice (especially the merger & acquisition transaction review), procedural rules, transparency and enforcement discrepancies in different localities with regard to price-related investigations due to local interest and protectionism. So far, China's competition chapters in its FTAs feature provisions on cooperation that are principles-based, but the EU prefers to negotiate commitments. It favours detailed provisions, not just soft-law approaches to substance, for example, on 'specific subsidies' which are permissible depending on proper justification, whereas blanket and unlimited subsidies should be prohibited. Such commitments would have a very significant effect on China's SOEs.



AN EU- CHINA FTA: ITS ECONOMIC IMPACT AND ADJUSTMENT ISSUES

The study also provides simulation estimates of the economic impact of a stylised EU-China FTA. The economic impact is calculated with the help of a complex CGE model, the technical format of which is 'state-of-the-art', and with the newest GTAP 2011 world database, probably the best available anywhere. The economic impact is provided with respect to the effect on GDP of the EU and China, and of all the EU member states, as well as the effects on industrial and services sectors' output and bilateral trade. In addition, labour issues are studied. Wage increases are calculated for workers at three skill levels. Given the nature of the model (which does not allow the direct measurement of temporary unemployment, however, which might result from heavier competition in such a FTA), these wage increases occur for a given employment, assuming the immediate adjustment by all workers. Of course, these assumptions are unrealistic, which is why a separate section is devoted to this labour adjustment issue for workers in a few sectors where output is likely to shrink due to the FTA. However, in most sectors of goods and services, the simulation shows positive effects, also implying more jobs overall.

How the economic impacts were empirically analysed? The stylised FTA (used in the model) has two variants: a 'modest' one with full removal of bilateral tariffs and 25% reduction in of the cost of regulatory barriers in goods and the same in services; and an 'ambitious' one, stylised with full bilateral tariff removal and 50% reduction in the costs of regulatory barriers on goods markets and also 50% reduction in the costs of regulatory barriers in services markets. Since, on the whole, the costs of regulatory barriers in goods and services markets are far higher than average tariffs, one should expect this 'deep and comprehensive' FTA, which addresses TBT and SPS issues as well as access to services markets, to generate greater economic effects than a tariff-only ('shallow') FTA. The term employed in the study and which is common in the literature is NTMs, non-tariff measures, which mostly boil down to regulatory barriers. Whereas empirical economic analysis of tariff removal has been well known for a longer period of time, the estimates of NTM costs – that is, the costs of regulatory barriers of tremendous complexity – is much more difficult.

Since the simulation has used the newest estimates of the costs of NTMs, one has to accept that these measures are nevertheless quite problematic and employed only because there is no better alternative. The relevant model chapters 18 and 19 therefore use the term 'actionable' NTMs, that is, the part of simple average NTM costs that can be reduced via the FTA. Although the costs of NTMs differ significantly between China and the EU (simple average of 36.7% for goods and 43.5% in services for China against 22.8% and 20.9% for the EU), the 'actionable' NTM reductions are also distinct: some 12.9% cost reduction of market access to the EU and some 22.3% cost reduction of market access to China. Such percentages are much higher than the average tariffs of the EU (less than 4%) and of China (8%). This is the fundamental argument why a 'deep' FTA is so crucial. China has substantially higher relative NTM cost levels for motor vehicles and services, while the EU has relatively higher NTM cost levels in low-wage sectors like textiles, clothing and footwear, as well as in paper and metals.

FTA's positive impact on GDP	The EU-China FTA is simulated to affect GDP positively: it will be (by 2030) 1.16% higher in China and 0.43% higher in the EU under the modest FTA, but 1.87% higher in China and 0.76% higher in the EU under the ambitious FTA. Because EU income is higher overall, the outcomes in money terms are more balanced: 62.5 (now 55.8) billion for China and 54.3 (now 48.5) billion for the EU in the modest case; 99.7 (now 89.1) billion for China and 93.2 (now 83.3) billion for the EU in the ambitious case.
Why the results are an underesti- mate	These results are an underestimate of the full economic effects for two sets of reasons. One set has to do with the intrinsic limitations of these models, despite their crucial general equilibrium characteristics (which incorporate all secondary effects to all markets and further responses as well, both domestically and in third countries). Several aspects are simply not included in such models but are bound to be affected by an ambitious FTA, such as: (i) investment effects and their repercussions;(ii) the trade-FDI nexus via value chains or intra-industry trade (in other words, with easier and freer FDI in China, EU-China trade in e.g. components) might be complementary; similar effects are likely for business services, too; (iii) various dynamic effects (including innovation, new business models and IPR questions); and (iv) the non-regulatory improvement of market functioning in China (e.g. if SOEs would be disciplined and no longer so super-dominant; also, improvement of transparency and governance, the lack of which is a major complaint of European business in China). Public procurement is also not 'in' in a satisfactory way, and this alone is a significant potential market in China, even when a small fraction would be eligible. Another set of reasons is more technical, mainly the problematic nature of the estimates of the costs of NTMs, in spite of efforts to improve this work. In particular, the cost levels of NTMs in services are suspected to be on the low side – one can observe that the opening up of services seems to contribute relatively little to the GDP effects and to increases in bilateral trade.
GDP effects for member states	Effects on GDP have also been simulated for all EU member states. The range of GDP changes goes from 0.47% for Portugal to 1.97% for Slovakia, in the ambitious FTA, while in the modest FTA, this range stretches from 0.27% (Portugal) to 1.34% (Slovakia again). All EU member states gain somewhat in both scenarios.





Real wages up for work- ers, three skill levels	The effects on real wages are as follows: China's real wage gains (in %) are smaller than overall GDP gains, while EU gains are somewhat higher. This reflects the respective patterns of trade. The EU imports much more consumer goods than vice versa – indeed, a large portion of EU imports of goods are 'mass consumer goods' which (can) directly raise real disposable income of EU consumers via a reduction in the cost of living insofar as such imports from China are cheaper than local substitutes. One also observes a wide range of effects in EU member states, ranging from 1.66% for real wages in Slovakia to 0.24% for real wages in Greece, under the ambitious scenario. According to skill-levels variations, the greatest real wage gains in the EU in percent terms are for low-skilled workers, with an EU average of 1.13% in the ambitious FTA scenario. That figure hides a great deal of variation, however, with Belgian and German low-skilled workers enjoying a 2% increase [2.01% for Belgium and 1.90% for Germany], and rather small gains in some lower-income EU countries [Portugal (0.14%), Greece (0.30%), Romania (0.41%) and Bulgaria (0.43%)].
Adjustment for workers, in the model used	The CGE estimation does not confirm the conjecture that (some) EU low- skilled workers might suffer income losses from a FTA with China, as in all EU countries the workers see real wages increase in both scenarios. This probably means that the EU, in the recent past, has already adjusted quite far to the strongest comparative advantages of China. The FTA is not likely to lead to a drastic new downward adjustment in sectors with relatively many low-skilled workers, although a few shrinking sectors will be observed. It can also be interpreted as a result of second-order effects (in general equilibrium), for instance, that the overall rise in economic activity – due to the FTA – also benefits the sectors under some competitive threat. Finally, one has to realise that, in the model, and of course not so fast and not so smoothly in actual practice, workers adjust via immediate re- allocation between sectors. This model-approach has the effect that, on the one hand, workers in marginally contracting sectors can minimise a wage decline via the re-allocation of some of them, and, on the other hand, the mobile workers can join in the expansion of the sectors enjoying increasing demand.



Adjustment for workers, in the real world	Of course, policy-makers and workers alike need to understand how the CGE simulations with respect to labour can be best interpreted for the reality of EU workers involved: that is, the actual practice of adjusting (over, say, the period) until 2030. Trading with a middle-income emerging economy like China can, in actual practice (rather than in the CGE model) of adjustment in European labour markets, bring about labour displacement that may cause temporary unemployment. If and insofar as this would happen, the overall benefits for the EU economy would not be enjoyed for at least the workers (and at least for a period) losing their jobs. Policy-makers and stakeholders should first consider whether and to what extent this might happen, and, second, take effective measures to ensure that temporary 'losers' are compensated and are given new opportunities. Labour displacement would occur when workers, leaving a sector having lost comparative advantage vis-á-vis China, cannot immediately be absorbed into another sector with rising demand (contrary to the model's assumptions). If one were to pay attention only to those sectors where the simulation suggests a contraction in the EU (in China, sectoral contractions can be seen to be even larger), it is likely that selected job losses would occur. Of course, overall, far more additional jobs are created, but these
	might be different jobs in different sectors and/or be located in different regions or countries.
Between minimum and maximum labour dis- placement	Since the CGE model is based on 'given' employment, no simulation of induced, temporary unemployment can be generated: all initial workers retain a job, but perhaps a different job in a different sector at a different wage. However, a proxy of the other extreme, namely, all workers who are mobile "in the model" between sectors, can be roughly calculated. This approach is very extreme, as it suggests that not a single one of these 'mobile' workers would be absorbed immediately in another sector. But such an extreme scenario never happens in actual labour market practice, and it also disregards several other key issues. So, in assessing adjustment issues to an EU-China deep FTA at this stage, one is found in between no induced unemployment – as the great flexibility of workers and their wages in the CGE model generates perfect and immediate adjustment – and a theoretical maximum 'labour displacement', if no adjustment whatsoever would take place, at least not immediately. The study shows that labour displacement in this extreme sense will be strongest for low-skilled workers in the EU (some 2% of the EU labour force and a little more for China). The member states that would be more affected are Malta, Slovakia, Germany, Finland, Hungary and Italy. Unfortunately, there is no rigorous analytical way to determine in between these two extremes, how large or small the job losses caused by the FTA would be.

Why workers' adjustment is manageable, even if painful

It is undeniable that jobs are lost every day in labour markets, but the study cites four critical considerations that can go far in mitigating highly pessimistic expectations. First, CGE models ignore (they are 'static') several options that are available to workers to deal with bad news. In actual practice, workers do anticipate, especially in vulnerable sectors, competitive threats and may (and do) seek to work elsewhere; they may seek private upskilling or even re-training; they move to other regions (even if, in the EU, such mobility is not very high, it is not irrelevant); they retire and if adjustment takes years, this does reduce pressures.

Second, companies have options, too, and often exercise them. Only some companies in vulnerable sectors are relocating towards lower-wage countries (even inside the EU) or exit from the market. Companies also seek to upgrade their product portfolio, thereby reducing their vulnerability vis-á-vis China; they may widen their portfolio as well; they may invest in innovative products or variations; or change their business model e.g. with a combination of different 'tasks' in global value chains.

Third, the design of the final FTA may (and usually does) anticipate the adjustment problems by explicitly using 'time' as a factor. In the case of vulnerable sectors with relatively more low-skilled workers, the tariff reductions are typically back-loaded, i.e. they are known when the FTA treaty is concluded, but become actually relevant only after a number of years (say, after 5 or 7 years of the 10 years assumed throughout this study). This back-loading facilitates the adjustment, so that labour displacement need not, or to a much lesser extent, lead to job losses, without immediate prospects.

Fourth, 'time' also plays a crucial role for another, perhaps even more important reason. China is still growing more rapidly than the EU and this will continue for the entire period until, say, 2030. In those 13 years or so, Chinese wages will rise fast and comparative advantages precisely in lowskilled-intensive sectors will become less pronounced or fade away.

Moreover, the famous 'unlimited supply of unskilled labour' in China (coming in from the western or central countryside) has dried up and is actually shrinking, whilst rapid growth in services (with a range of skill levels) will compete with labour demand for low-skilled industrial sectors. None of this can be incorporated in the CGE model, even when some anticipation of income levels in 2030 has been applied. Taken together, these four considerations significantly brighten the otherwise sombre outlook for low-skilled workers.

Member states (helped by the EU) should commit to active labour market policies

What labour displacement remains, due to the FTA, even when the periods of temporary unemployment are not known in advance, should be properly addressed by explicit and clear policy action. Some of the cushioning is automatic, given the welfare state. But 'active labour market policies' are required, whether in the form of (effective) re-training, upskilling, job search support, etc. But it should also be noted that there are limits to what can and should be 'attributed' to the EU-China FTA. Job losses occur all the time and for many reasons (whether IT or automation, bad management, shifts in demand to other products or services, new business models, etc.) and one has to be careful not to single out one individual FTA as the source of job losses. And the gains in jobs (far greater due to the FTA than the losses) do help as well.



OVERALL POLICY IMPLICATIONS

A FTA between China and the EU is worthwhile for a host of reasons. The economic potential in bilateral trade is shown to be large (more than a doubling of what are already very large trade flows both ways), and this does not include expected powerful investment effects (which, unfortunately, are resistant to modelling, so no hard estimates) and their repercussions for bilateral trade in goods and services. It would also be positive for GDP and jobs. Strategically, the FTA should be significant, because it can only succeed when China implements the reforms it has announced and complements them with additional ones such as on SOEs and the opening of public procurement. In this sense, the FTA is even more beneficial for China than for the EU (the model cannot incorporate these aspects). It goes to confirm that a deep and comprehensive FTA is a perfect 'fit' for China at its current stage of development, expressing the 'new logic' given its announced reforms, whilst the EU can finally pursue the 'logical sequel' in its trade policy vis-á-vis dynamic East Asia.

NOTES

I Tomorrow's Silk Road: Assessing an EU-China Free Trade Agreement 35

