



Opening economies succeed

More trade boosts growth

November 11, 2005

The opening of economies is, along with the improvement of human capital, the key driver of growth. Countries that succeed in trading goods and attracting foreign direct investment and labour grow much more than countries that fail to become integrated in the global economy.

Open economies benefit from the international exchange of ideas and thus permanently experience technological progress. This in turn is the key source of long-term economic growth. Greater openness also means fiercer competition. This obliges politicians to constantly improve the institutional framework and prompts companies to continually optimise their production processes and develop new products.

In the last 25 years global integration, expressed by trade openness – a measure of the intensity of trade taking into account the price level and the population of a country – has increased appreciably. Several emerging markets in particular have opened up enormously, and in fact much more so than the industrial nations. And it seems as if they will retain the same appetite for the international trade in goods and services in future. While Belgium, Germany and the Netherlands were among the most open countries in 2005, we expect that emerging markets like Korea, China and Turkey will have overtaken them by 2020.

As key target countries for offshore activities, China, India and Korea will intensify their cross-border trade, as these countries benefit from the ever expanding and improving electronic infrastructure. Further deregulation, particularly due to the lifting of non-tariff barriers, will also help to stimulate foreign trade. In Turkey, by contrast, the vigorous opening is being driven especially by the prospect of admission into the EU.

Among the industrial countries, we expect Spain to open up the most. The country is benefiting from the comprehensive liberalisation efforts of the 1990s and from its function as a conduit between Latin America and Europe. Here, too, the key is that electronic infrastructure has become more extensive, through which falling transaction costs will further boost trading activity, particularly with Mexico.

Many growth centres of the future have based their hopes of success on increasing trade liberalisation and an improved investment climate for foreigners. China is the best example of this. Countries like Argentina, South Africa and New Zealand, which are still very closed economies, could learn from them.

**Author**

Marco Neuhaus
+49 69 910-31519
marco.neuhaus@db.com

Editor

Stefan Schneider

Technical Assistant

Pia Johnson

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

Managing Director

Norbert Walter

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Development until 2020: Opening economies grow

Emerging Markets

Ranking	Growth centre	Strongest opening
1	India	Korea
2	Malaysia	Mexico
3	China	Turkey
4	Thailand	China
5	Turkey	India

Industrial countries

Ranking	Growth centre	Strongest opening
1	Ireland	Spain
2	USA	Greece
3	Spain	Ireland
4	Canada	USA
5	France	France

Source: DB Research

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An economy's openness is one of the key determinants of its growth, along with human capital, the investment ratio and the rate of population growth.¹ Countries that successfully participate in international trade, open themselves to foreign direct investment and attract foreign workers post much higher economic growth than countries that fail to become integrated into the global economy. The future changes in the openness of each individual country therefore need to be analysed in order to more accurately assess countries' future growth prospects.

This report entitled "Opening economies succeed: More trade boosts growth" follows on directly from Deutsche Bank Research's introductory report "Global growth centres 2020 – *Formel-G* for 34 economies".² The projected opening-up of economies is a crucial factor in identifying global growth centres in 2020. For example, Turkey, China and India, which are among the Top 5 emerging growth centres, are also three of the five countries that will open the most in the next 15 years. This applies to industrial countries as well. In this group no less than four of the five countries opening up the most are set to be the most dynamic growth centres until 2020 – Spain, Ireland, the US and France.

So one recipe for boosting economic growth is opening up to foreign influences. But how do countries actually benefit from becoming more open? What part does openness play in the globalisation process? And how can openness actually be empirically measured? Just answering these fundamental questions produces some surprising insights and confounds widespread presumptions. Our main interest, however, is to discover which countries will open particularly vigorously or hesitantly in future so that conclusions can be drawn about their future growth potential. However, forecasts of this kind can only be firmly based if past performance is also analysed. Therefore we first take a look at the past before investigating the future trends in openness. We shall illustrate using a variety of countries.

1. Openness is an engine of growth

"Trade leads to welfare gains" is the standard answer to the question why economies that open are able to achieve more growth. Increasing welfare is however not synonymous with economic growth, so it remains unclear how opening actually drives growth. The functional chains and transmission channels are multifarious and consist not only of the various growth drivers generated by trade but also those resulting from foreign direct investment.

Trade generates economic growth

Explanations of how increased trade boosts growth frequently draw on the standard neoclassical model of international trade. Adam Smith (1776) and David Ricardo (1817) showed that two countries with absolute and comparative cost advantages can benefit from

Openness feeds through to growth via a multitude of channels

¹ DB Research has already drawn attention to the importance of human capital. See Bergheim, S. (2005): Human capital is the key to growth: Success stories and policies for 2020. Current Issues, August 1, 2005. Deutsche Bank Research. Frankfurt am Main.

² See Bergheim, S. et al. (2005): Global Growth Centres 2020: *Formel-G* for 34 economies. Current Issues, March 23, 2005. Deutsche Bank Research. Frankfurt am Main.

No growth drivers in the neoclassical trade model, but...

trade.³ Each country specialises in producing the good that it can manufacture at a relatively lower cost.⁴ This boosts the total number of manufactured goods that both countries can consume, and higher consumption means higher welfare. But a higher level of welfare is not synonymous with higher GDP. This is because the countries are limited to the same production capacities both in autarchy and under free-trade, according to this model. Neither technology nor the capital or labour inputs are altered by trade. The consequence is that the nominal value of goods produced has remained constant, while their real value may even have fallen (depending on the type of production function and the way real GDP is measured). On the other hand, the total value of goods consumed in each country after trade opening has risen – as generally assumed. The welfare gains resulting from higher consumption can thus be very large and thus always constitute a strong argument in favour of free trade, but economic growth is not an immediate consequence.⁵

... trade enables technology transfer...

There are, however, other channels outside the neoclassical trade model through which increased trade can indeed boost economic growth, the main ones being technology transfer and institutional improvements. Technology transfer occurs via the importing of high-tech capital goods, production facilities, patents and licences, as well as knowledge-intensive services.⁶ Furthermore, the importing of new technologies also stimulates the development of domestic technology via the imitation and enhancement of imported products. So trade accelerates technological progress, which in turn is the key source of long-term economic expansion according to growth theory.⁷

... and improves the institutional framework

Besides technology transfer the improvement of the institutional framework also plays a major role: “Opening up to foreign influences directly generates incentives to adjust and improve domestic rules and facilities so that opportunities for trade and investment are not wasted”.⁸ It encompasses improving infrastructure, boosting capital market efficiency and safeguarding property rights. This process is facilitated by increasing international competition, which prompts domestic companies to continually optimise their production processes and develop new products; this also speeds up technological progress and thus boosts economic growth.

Direct investment boosts capital accumulation, ...**Direct investment drives economic growth⁹**

Besides the international trade in goods and services another key contributor to macroeconomic growth is the movement of capital. International capital flows take the form of either portfolio investments or direct investments. While portfolio investments are of less significance for economic growth, foreign direct investment can have a very major impact on the recipient country. As many foreign

³ See Smith (1776) and Ricardo (1817). The precondition for the existence of absolute/comparative cost advantages is that countries differ in terms of either demand, technology or factor availability.

⁴ For more on the subject, compare with source texts, or Krugman/Obstfeld (2002), or Siebert (2000).

⁵ We shall not go into the negative aspects of trade such as transaction costs, which cause welfare gains to shrink.

⁶ Boosting growth via increasing trade integration, see Rivera-Batiz/Romer (1991).

⁷ The link between technological progress and economic growth was first established in Solow/Swan's neoclassical growth model and refined in the new endogenous growth models of Romer, for example. See Solow (1956), Swan (1956) and Romer (1986, 1990).

⁸ Sally (2004).

⁹ For a detailed overview of how foreign direct investment impacts economic growth see Neuhaus (2005), Chapter 3.

**... transfers manufacturing know-how
and management expertise...**

companies are producers of consumer and capital goods, their business activities directly boost local output. Besides these greenfield investments, however, a major part is also played by foreign affiliates. The transfer of manufacturing know-how and management expertise boosts the efficiency and output of local affiliates. But also the mere presence of foreign companies can result in positive externalities (known as “knowledge spillovers”), where local companies benefit from the transfer of knowledge and independently develop new products and technologies.¹⁰

... and has positive external effects

Furthermore, foreign direct investment conceivably generates numerous other benefits. If foreign firms train their local staff, for example, this also increases the stock of human capital in the recipient country. Moreover, the institutional framework in the target country can improve (e.g. via a higher degree of transparency and enforcement of company law).

The international exchange of goods and services as well as capital is thus a major driver of economic growth. It is not so much this finding as the efforts of entrepreneurs to benefit from international trade and capital flows that have been the primary motivation behind the opening of economies in the last 150 years. Major events, such as the two World Wars or the restructured global exchange rate systems, have resulted in this process not occurring continuously but in waves.

¹⁰ See Borensztein/De Gregorio/Lee (1998).

2. Waves of opening: The history of globalisation since 1870

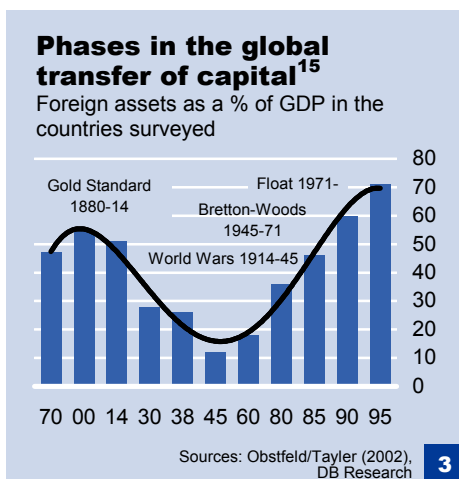
The reciprocal opening of economies and the increasing economic integration are often referred to under the catch-all term “globalisation”. Globalisation is primarily regarded as the emergence of global markets and the resulting international division of labour. The focus is on the mobility of products (international trade in goods and services) and factors of production (international flow of capital and migration).¹¹ A look at the development of globalisation since 1870 shows that it has progressed in waves.

Three phases of international integration

The widely held view, which prevails among the general public in particular, is that the current scale of globalisation is unprecedented. The contrasting view shared by others is that around 100 years ago the global economy was as integrated or in some respects even more integrated than today.¹² The discrepancies between the findings are the result of which period is observed and which indicators are selected to reflect the degree of globalisation. The last 130 years can be divided into roughly three phases: an initial phase of close international integration from the end of the 19th century and until World War I, a second phase of relative independence of individual countries between the Wars and in the years immediately following World War II, as well as a third phase of vigorous globalisation in the second half of the twentieth century. These phases are the result of developments in the goods and factor markets.

In the goods markets the ratio of exports to GDP trended up between 1870 and the beginning of the 20th century. Only with the onset of the Great Depression did the ratio begin to fall markedly, reaching its all-time low after World War II. This was followed by a rapid expansion in the global trade in goods that has been maintained until the present day. This growth was the result of a huge reduction in trade barriers. The main events in this respect were the major GATT negotiations such as the Kennedy Round (1964-67) and the Uruguay Round (1986-93); they led to substantial reductions in tariffs worldwide. In addition, there are 205 regional trade agreements alone that have been registered with the WTO/GATT since it was founded in 1948, and 162 of these are still in force (as of January 2005).¹³

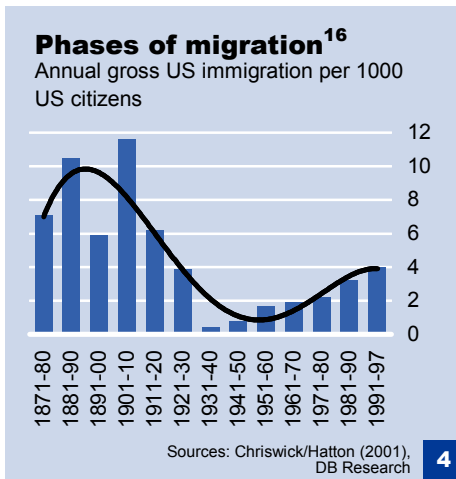
The capital markets have developed in a similar fashion to the goods markets; however, the first phase already came to an end with the outbreak of World War I. The driving force behind the sharp increase in capital flows of the last 30 years was the collapse of Bretton Woods, the broad introduction of floating exchange rates and the accompanying removal of exchange controls. A look at the waves of immigration into the US – as an indicator of the integration of labour markets – backs up findings in the goods and capital markets. The wave of immigration at the end of the 19th century and the start of the 20th century (especially from Europe) is still unique – during the last 150 years at least. Nevertheless, immigration has risen sharply again in the last 50 years thanks to large numbers of



¹¹ For a definition of globalisation see Paulick (2003) or Schubert (2001), for example.

¹² Sachs/Warner (1995) or Rodrik (1998).

¹³ WTO Secretary (2005).



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arrivals from Latin America and Asia, and in absolute terms it is at roughly the same level as 100 years ago. In 2003 more than half of all the immigrants living in the US came from Latin America (55.5%), one-quarter from Asia (25.4%) and a good one-seventh from Europe (13.3%).¹⁴ (See charts on the integration of goods and capital markets and on migration.)

A look at the goods and factor markets shows on the one hand that the globalisation trend has continued uninterrupted since the middle of the 20th century. On the other hand, however, 100 years ago global integration was similarly substantial before receding sharply as a consequence of the World Wars. Forecasts regarding the progress of opening are regularly based on the assumption that there will be a continuation of the trend in globalisation observed over the last 50 years – which is also the basis for Deutsche Bank Research's projection. There are good reasons for such an assumption. However, it should always be kept in mind that a weakening or even reversal in the globalisation trend resulting from unforeseen global events (e.g. due to an escalation in global terrorism) cannot be ruled out.

¹⁴ Data from Migration Information Service (2004).

¹⁵ Data from Maddison (2001), Table F-5, p. 363. Note that there are varying intervals between the readings depicted in the chart. Moreover, in calculating the figures the rising trade in services is included in GDP, but it is not included in exports. In other words, in the last 30 years the integration of goods markets has been even *greater* than shown in the chart. The polynomial trend line in the diagram is intended to illustrate the three different phases of integration.

¹⁶ From Obstfeld/Taylor (2002). Until 1960 only data for the G7 countries; subsequently IMF data for 30 countries. The small number of countries until 1960 has a selection bias towards countries with high levels of FDI, i.e. the integration of capital markets tended to be *overstated* until the middle of the 20th century.

¹⁷ Unfortunately there is no data on global migration reaching back as far as the 19th century, but only for immigration into the US: Chiswick/Hatton (2001). Updated by the U.S. Immigration and Naturalization Service (2000).

3. Measuring openness correctly

Focus on the intensity of trade in goods and services

We have seen that the scale of international economic integration is determined by the global exchange of goods and services, capital and labour. However, long-term analyses of the openness of countries and the effect of openness on economic growth tend to focus on the intensity and freedom of international trade.¹⁸ Capital transfers and labour migration tend to be ignored as further aspects of openness, especially because of the lack of data. But also in determining openness in relation to pure trade in goods and services (“trade openness”) numerous different metrics are used that do, however, incorporate some inaccuracies. Only if the openness of trade is measured correctly can the right conclusions regarding economic growth be reached. Taking as a reference the openness measure developed by Deutsche Bank Research specifically for the “Global growth centres” project, we shall discuss the pros and cons of other commonly used indicators for measuring openness.

DB Research trade openness

The starting point for measuring the openness of a country is very often its foreign trade share.¹⁹ The foreign trade share is the sum of imports and exports (goods and services) weighted by the factor $\frac{1}{2}$ relative to GDP. A country with a larger foreign trade share is generally deemed to be more open.

The trade volume of a country depends on its population

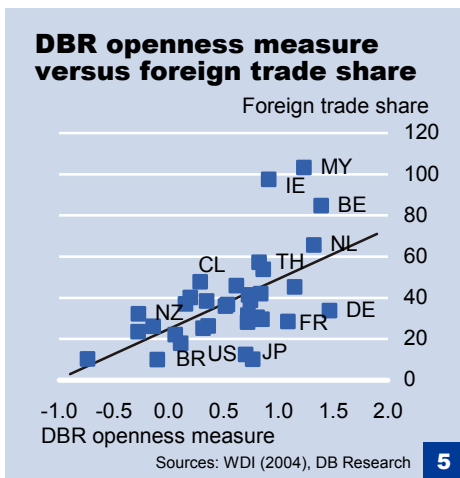
The pure foreign trade share is, however, not a good measure of openness. Firstly, the foreign trade share does not take into account that small countries with small populations engage in more foreign trade than large countries with large populations. In small countries the number of potential domestic trading partners is lower, so many trading relations are international. By contrast, the exchange of goods and services in large countries is primarily conducted within their own borders – on account of the wealth of domestic trading partners; international transactions are less significant. So, purely in terms of foreign trade share, small countries tend to appear more open to foreign trade than large countries. However, it may be that big countries – or rather their companies and trading partners – are just as inclined as small countries to do business with domestic and foreign partners (and are able to do so in accordance with the institutional circumstances), but do so less often because they have a larger population. In order to strip out this scale effect the latest scientific research adjusts the trade share for the population size of the country concerned.²⁰ Secondly, the pure foreign trade share (just like the population-adjusted foreign trade share) does not take into account that different countries have differing price levels. Imports and exports are traded at world market prices, while GDP is calculated at national prices. If the domestic price level is very high, as in Japan for example, the reported foreign trade share is much smaller than would be the case if the price level were average. The reverse is true for China, where the very low domestic price level tends to boost the foreign trade share relative to other countries, and thus makes China, all things being equal, appear more open.

The size of the foreign trade share depends on the domestic price level

¹⁸ Important articles on the link between openness and economic growth include Sachs/Warner (1995), Harrison (1995), Edwards (1998) and Baldwin (2003).

¹⁹ See for example Dollar (1992) or Harrison (1995).

²⁰ See, for example, Chapter 12 in Barro/Sala-i-Martin (2004). Other geographical factors that are relevant for trade, such as the space or distance to the nearest trading partner, are dealt with by Frankel/Romer (1999), for example.



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Therefore, in order to be able to compare the value of traded goods with GDP across all countries, GDP has to be calculated at the relevant purchasing power parity exchange rates.²¹

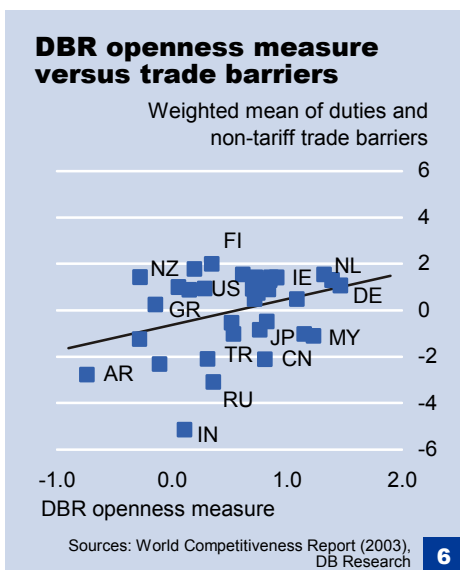
The DB Research openness measure calculates the foreign trade share according to purchasing power parity and adjusts it for the relevant country's population size.²² Comparing our openness measure with the simple foreign trade share shows that big countries (Japan, USA, Germany etc.) with a relatively high price level are rated as more open than the other countries, whereas small countries (Ireland, Belgium, Netherlands) and countries with a relatively low price level (Malaysia, Chile, Thailand) are rated as being less open than the foreign trade share alone suggests (see chart 5). Countries on the line are equally open according to both measures. Countries above the line are more open according to their foreign trade share than is indicated by the DB Research measure. For countries below the line the reverse applies.²³ In addition, countries at the bottom left of the chart are deemed to be closed according to both measures, while countries at the top right are regarded as open according to both measures. Overall there is a positive correlation between the two measures of roughly 0.6.

It should be kept in mind that the DBR measure is not free of distortions. Since the measure does not take into account the breakdown of exports and imports, countries whose exports largely comprise of raw materials appear to be universally open, even though they may be very closed in their other business sectors.²⁴

Trade barriers

Another indicator that is often used to judge the openness of a country is the volume of trade restrictions. Here a distinction is made between import duties and non-tariff trade barriers. The ratio of import duties to total import volume is usually calculated to establish the average duty levied by a country. Average duties calculated in this way, however, understate the trade restrictions caused by virtually prohibitive import duties, since the imports of these products are small. The scale of non-tariff trade barriers is often interpreted as the percentage of imports that are subject to a non-tariff trade restriction. Here, however, no distinction is made between non-tariff trade barriers that are very restrictive and those that are less restrictive. It is often difficult to even define what a non-tariff trade barrier is.

Both measures – import duties and non-tariff trade barriers – are thus of only limited assistance in determining the openness of a country. In addition, the measures are often used independently of



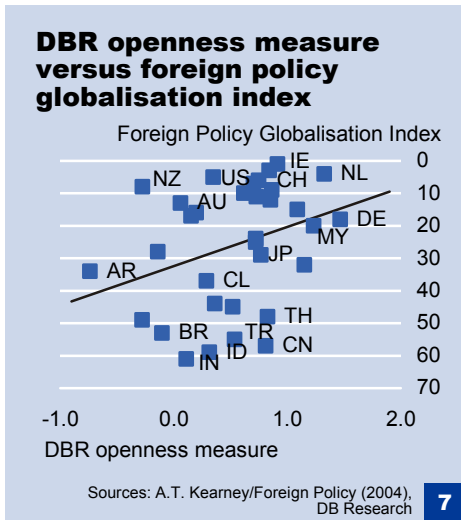
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²¹ See Alcalá/Ciccone (2004).

²² The population adjustment is made as part of the panel regression (all 34 countries from 1970 to 2002) of the logarithmic foreign trade shares calculated using purchasing power parity against the logarithmic, country-specific population sizes plus a general constant. Both regression coefficients are significant; the coefficient for the population size is -0.44. The explanatory power (corrected goodness of fit) of the panel regression is over 50%. This means that over 50% of foreign trade can be explained by a country's population size – a strong argument for adjusting foreign trade share for the geographical population factor.

²³ The line in the chart is the result of plotting the regression between the pure foreign trade share and the DB Research openness measure. The slope coefficient and the regression intercept are both significant at the 1% level. A value of zero on the DB Research openness measure (on the x-axis) implies that the country is just as open as the average country in the 1980s (population adjusted).

²⁴ Using the DBR openness measure for OPEC countries would make many of them appear more open than is actually the case.



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Industrial nations overrated by foreign policy measure

each other, which can lead to erroneous assessments of the overall scale of trade restrictions in a particular country, since both measures are often used interchangeably in the trade policy arena.²⁵ The above chart shows a comparison between our measure of openness and total volume of trade barriers using the mean total of duties and non-tariff barriers.²⁶ The line joins up the points at which the two measures indicate the same intensity of openness. Countries like India, Russia and China, which are well below the line, are categorised as tightly closed on the basis of the trade barriers measured in this way. If, however, the actual volume of trade is assessed relative to the population size of these three nations, they rank halfway up the openness league (DBR openness metric). That the scale of trade barriers can be a misleading indicator of the openness of countries is also shown by the example of Malaysia. Malaysia with an absolute foreign trade share of over 100% is the fourth most open country according to our openness rating, but it would be one of the most closed countries on account of its trade barriers (27th place). The correlation between the two measures is just 0.3.

Globalisation index of foreign policy

The indicators presented so far all attempt to measure pure trade openness. A.T. Kearney and Foreign Policy (FP), by contrast, draw up an annual broadly based globalisation index for more than 60 countries.²⁷ It measures the scale of economic and political integration, the level of technological integration and the intensity of international personal contacts.

The FP measure overstates the readings of industrial nations. Comparing it with the DBR measure reveals that the globalisation index almost always awards the highly developed countries a more positive rating, while the less developed countries receive more negative ratings; Malaysia fares the best in 17th place. The emerging markets do poorly in particular on the subcomponents of the “political integration” index (measured using factors such as the number of memberships of international organisations), “technological penetration” (via the number of internet users and the security of information systems, for example) and “personal, international relationships” (indicated by such factors as tourism and international telephone contacts). For our analysis of the growth potential of individual countries, however, economic integration is more relevant and thus the DBR openness measure is more suitable. Furthermore, the globalisation index of foreign policy is still quite new, so extrapolation into the future can only be made with great difficulty given the lack of historical data, let alone using the index in a panel growth analysis – as in the introductory report “Global growth centres 2020”. Overall, the correlation between the DBR openness measure and the globalisation index of foreign policy is low at 0.3.

²⁵ For the drawbacks of import duties and non-tariff trade barriers, see also Rodriguez/Rodrik (1999).

²⁶ The data for the average duty and the non-tariff trade barriers comes from the World Competitiveness Report 2002-2003, Tables 2.10 and 2.24. The data has been standardised using the mean and the standard deviation and then brought together in a single measure.

²⁷ See A.T. Kearney/Foreign Policy (2004). The data in the 2004 report relate to the year 2002. No figures for Belgium.

Other openness measures

Insufficient data on capital and migration flows

Apart from the openness of trade depicted by the DBR measure a major factor that should be considered is the openness for capital. One proxy for a country's openness to foreign capital inflows is the stock of foreign direct investment relative to GDP. UNCTAD operates one of the biggest databases on direct investments. Data is available from 1970 on nearly all countries.²⁸ The stock of foreign direct investment has to be revaluated every year, as its value is constantly changing due to, depreciation and provisioning. UNCTAD has carried out this recalculation regularly for the most developed countries, but not for many emerging markets. This means that for China or India, for example, the foreign capital stock has only been recalculated since 1997; before then the total stock was determined by simply adding up all the annual capital flows. The historic data on foreign capital stock is therefore not comparable with data on the OECD countries or emerging markets. This is why FDI is neither factored into *Formel-G* nor investigated more closely within the analysis of openness.

Value of foreign capital stock recalculated at irregular intervals

Very little data on migration in emerging markets

The data pool is equally poor for indicators for measuring openness of the labour market – the third openness factor after trade in goods and capital. Data on the proportion of the population made up by foreigners or foreign workers is not available for many emerging markets, and for many OECD countries, too, statistics have only been collected since the mid-1980s.²⁹

The dearth of data on capital and migration flows has confined soundly based, long-term research into the development of openness of a country to the analysis of trade openness. The best measure of trade openness is the trade share calculated at purchasing power parity and adjusted for population size. In order to forecast the future development of openness and the resulting growth potential of each of the 34 industrial countries and emerging markets it helps to start by looking at the past development and its impact on our indicator.

²⁸ See UNCTAD (2005).

²⁹ See World Bank (2004).

4. Vigorous opening since 1980: Global trade much more integrated

Industrial nations are still more open than emerging markets, but...

Between 1980 and 2005 all countries except Indonesia have intensified their trade links with foreign countries and have become more open in this respect. Strikingly, four of the five countries that have opened their borders the most are emerging markets, and no less than seven emerging markets are among the Top 10. All in all, the emerging markets have opened up much more than the industrial countries (average increase of 0.9 as opposed to 0.7) – in our opinion this is one of the main reasons for their strong economic growth during the observation period.³⁰

... the emerging markets have liberalised more vigorously in the last 25 years

The differing degrees of opening between the emerging markets on the one hand and the industrial countries on the other reflect their differing starting points. In 1980 the degree of trade integration between the OECD countries was already relatively high, whereas many emerging markets were still relatively autarchic. In the 1980 rankings of most open nations, emerging markets occupied only 3 of the Top 10 places and a mere 5 of the Top 20 places. In the last 25 years many emerging markets began to boost their trade with both industrial countries and other emerging markets. While the trade between the industrial nations and emerging markets is almost exclusively inter-industrial in nature, with exports in one sector offsetting imports in a different sector, the trade between emerging markets is also intra-industrial – exports in one sector compete with imports in the same sector. Particularly the additional trade between the emerging markets has resulted in their having opened up more on average than the industrial countries since 1980. Nevertheless, even in 2005 the industrial nations are on average still much more open than the emerging markets (industrial nations 0.74, emerging markets 0.50).

Turkey and Mexico are the stars among the emerging markets,...

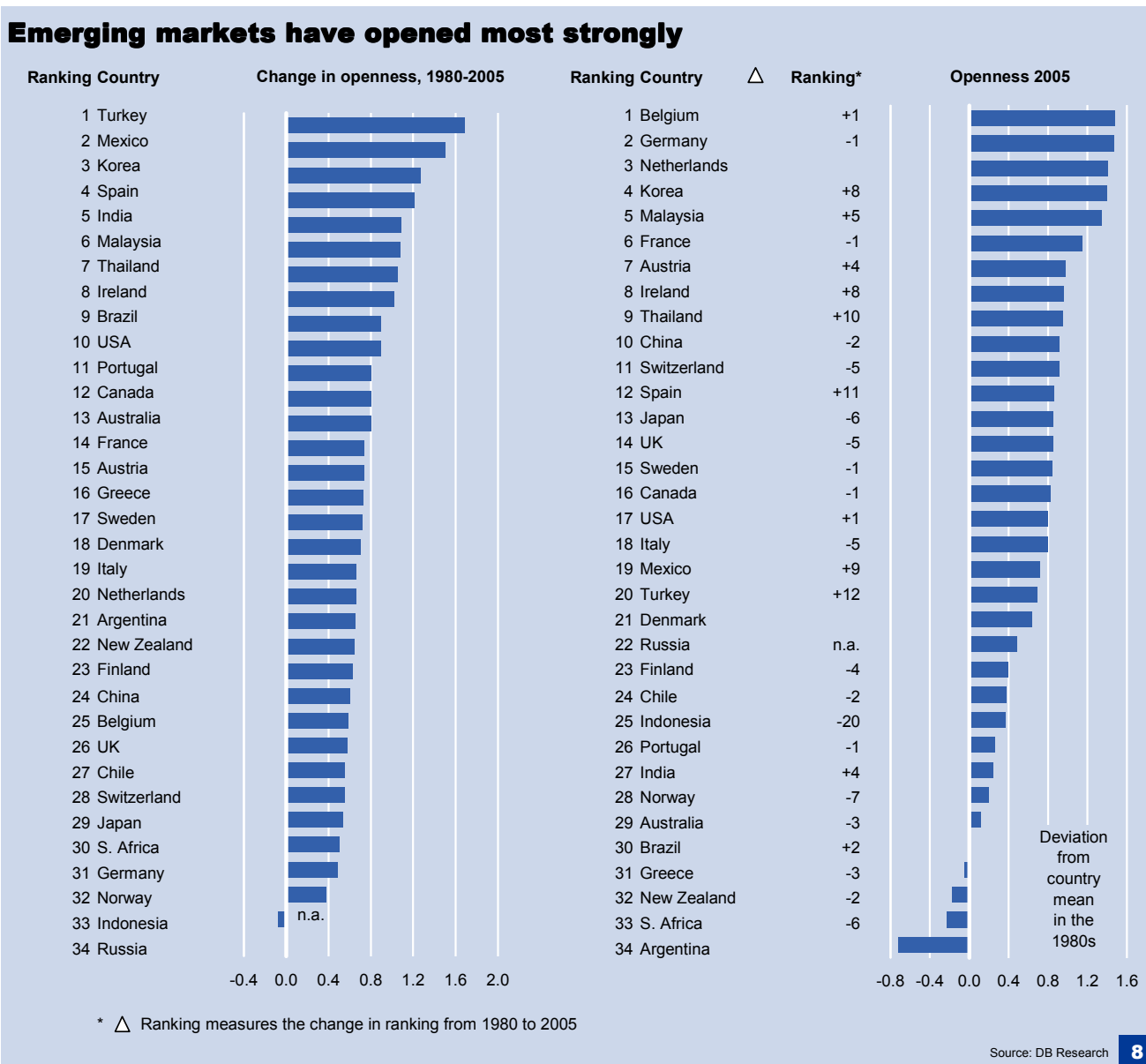
There have been wide variations in the course of liberalisation from one country to the next. Turkey and Mexico have opened up the most overall. After being among the most closed societies in 1980 they have now made the grade and occupy a mid-table ranking in our group of countries. Korea is the country that has opened the third fastest. However, Korea was already exceptionally open back in 1980, and its dynamic development has propelled it into the top group of most open countries – level with the Netherlands and just behind the leaders, Belgium and Germany. Spain and Ireland have been the success stories among the OECD nations. Ireland has climbed from 16th place to 8th, while Spain has improved by no less than 11 places – from 23rd to 12th. India, the country with the most growth potential up until 2020 according to *Formel-G*, has also opened up appreciably in the last 25 years, but it is still one of the most closed countries in 2005. The potential for greater liberalisation is therefore huge.

... Ireland and Spain among the OECD nations

Why have some countries been so successful in opening up over the last 25 years? Various milestones in the liberalisation of trade are to be illustrated using four examples – with Spain and Ireland for the industrial nations and Turkey and India as emerging markets. The country analyses show the key determinants of liberalisation and outline ways in which other countries can learn from the successes of these four model countries. At the same time the

³⁰ Note that the analysis covers only 34 countries from the OECD and the emerging markets. Therefore, the conclusions cannot simply be extrapolated for other countries.

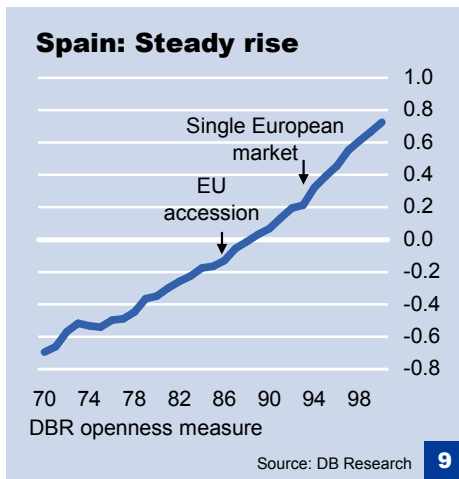
questions that have to be asked is whether the selected countries can reproduce their successes in future and the dynamism of liberalisation can be extrapolated.



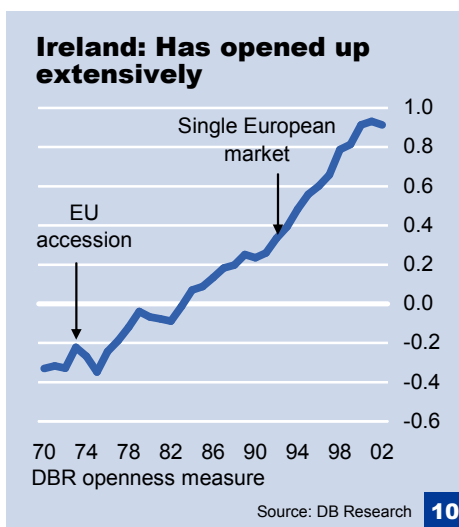
The key to Spain’s success: Joining the EU³¹

Spain was still very closed in 1980 – it was ranked 17th among the 21 OECD countries. Only its neighbour Portugal was less open, along with Greece, Australia and New Zealand. Its (purchasing-power-parity-adjusted) trade share of GDP was just 10% (OECD average 27%). Spain’s accession to the EU in 1986 thus triggered a wave of trade liberalisation. With the start of EU membership the first measure to be implemented as planned was the lifting of all import duties on products from EU and EFTA countries over a

³¹ See OECD (2000).



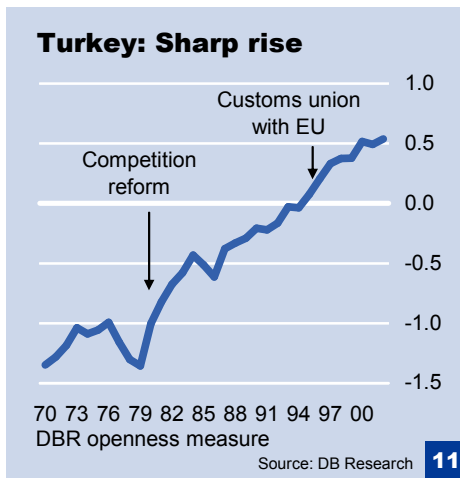
period of 7-10 years. At the same time import duties on products from outside the EU were adjusted to the harmonised, lower EU level. A second catalyst for liberalisation in Spain came from the establishment of the Single European Market in 1993. Of the 4,500 quotas that Spain imposed on imports in 1986 all those that applied to EU member states were lifted in 1993. Some country-specific quotas with non-EU countries were harmonised at the EU level. The lifting of trade barriers over the last two decades is reflected in an expansion of Spain's trading activities. The abolition of import duties in the second half of the 1980s led to an increase in the DBR openness measure, which then surged with the reduction in quotas in 1993. The increase in trade activities also led to a sharp increase in economic growth in the second half of the 1980s and 1990s. In addition, Spain benefited from the Uruguay Round (2001) owing to the joint EU trade policy, which resulted in a further reduction in EU tariffs. The net outcome of these trading reforms is that Spain climbed nine places in the rankings of most open OECD nations between 1980 and 2005 and currently occupies 8th place. As a result the trade share of GDP has risen from 10% (1980) to nearly 35%.



The keys to Ireland's success: The single market and direct investment³²

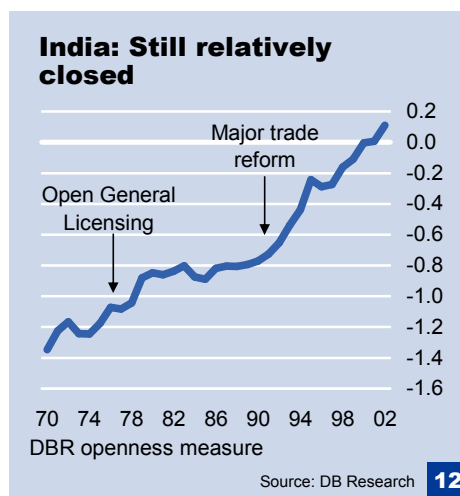
Ireland's accession to the European Union was a long, drawn-out process. The first attempt failed in 1963, when Ireland and Britain were refused entry into the European Economic Community. It took another ten years before Ireland became a member of the European Community. In response to the failure of its first accession negotiations and in the search for alternative means of liberalising trade, Ireland unilaterally abolished a series of duties in the mid-1960s (1963/64) and signed a free trade agreement with Britain (the "Anglo-Irish Free Trade Agreement", 1965). The agreement with Britain was particularly important for the Irish economy, given that 70% of all Irish exports went to their British neighbours at that time. Nevertheless, this liberalisation of trade together with Ireland's early entry – compared to Spain – into the EU had an only minor effect on its trade integration: in 1970 Ireland ranked 14th of the 21 OECD countries according to the DBR openness measure. In the next 20 years Ireland did open up, but at hardly a faster pace than the other industrial nations. Occupying 12th place in 1980 and 1990, Ireland remained only a moderately open OECD country. Not until the 1990s did the pace of liberalisation pick up. This process was assisted on the one hand by the establishment of the single European market and on the other thanks to a strong inflow of foreign direct investment. Enticed by tax subsidies, foreign firms built huge production capacities in Ireland. The purpose of these facilities was only partially to supply the Irish market. Rather, the cost advantages of such production facilities were used to supply foreign markets, which led to a sharp increase in the trade volume. This has helped Ireland to climb to 5th place in the rankings of most open OECD countries (2005), and contributed to Ireland's tremendous economic growth in the 1990s.

³² See OECD (2001).



The keys to Turkey's success: Competition reform and customs union³³

Trade liberalisation in Turkey has been a real success story in the last 25 years. Apart from Argentina none of the other 34 countries surveyed in 1980 was more closed than Turkey. And no other country has liberalised more vigorously in the last 25 years. The two keys to this success are: (1) the major reform initiative in 1980 especially with the goal of fostering competition and (2) the customs union with the EU in 1996. The reforms of 1980 included the abolition of subsidies and price controls, more flexible exchange and interest rates, as well as the liberalisation of trade policy. Trade liberalisation was focused on export promotion. Export subsidies, wage restraint/reduction and a continuous depreciation of the Turkish lira were aimed at boosting exports and thus kick-starting the economy. The second factor was a gradual promotion of imports. Tariffs and other import barriers were scaled back. Turkey received a major boost in 1996 from the customs union with the EU: import duties on industrial products from the EU were abolished, while the single EU import policy came into force for imports from industrial nations. Other, earlier trade liberalisations occurred owing to the country's GATT entry in 1985 (in particular the obligation to reduce import barriers in 1993) and the signing of a free trade zone agreement with EFTA in 1991. Today Turkey is the sixth most open emerging market, on a par with fifth-placed Mexico.



The keys to India's success: Open General Licensing and trade reform³⁴

India, the growth star of all the 34 countries surveyed for the period until 2020, underwent several cycles of trade liberalisation and protectionism until 1980. The great wave of liberalisation between 1951 and 1956 came to an abrupt end due to the balance of payments crisis of 1956/57 and the reintroduction of extensive import controls. Not until ten years later with the devaluation of the Indian rupee was the policy of liberalisation revived (liberalisation of import licences, reduction of import and export duties). But just one year later, in 1967, extensive import controls were re-imposed that would remain in place until the mid-1970s. Only subsequently came a sustained turnaround in trade policy: industry complained about falling profits due to strict controls on the importing of capital goods. At the same time foreign currency reserves grew thanks to an improvement in the export sector. Both prompted politicians to adopt a stance in favour of trade liberalisation. Following on from this came the introduction of the "Open General Licensing" (OGL) list in 1976. The importation of goods on this list no longer required a licence to be issued. This did not necessarily mean that these goods were also duty free; some goods, however, were exempted from import duties. These exemptions were all the more useful as duties had been increased sharply between 1976 and 1990. During the same period the number of goods on the OGL list rose from 79 at the beginning to more than 2,000 capital goods/intermediate products. In 1991 another comprehensive programme of trade liberalisation was launched. One of its reforms was the immediate abolition of all duties on capital goods. Consumer goods, however, continued to require an import licence until 2001. Apart from licence exemption the second strand also included a reduction in the level of duties, which had increased massively in the 1980s. In particular

³³ See OECD (2002).

³⁴ See Panagariya (2005).

the maximum tariffs were scaled back: from 355% (1990/91) to 50% (1995/96) and then 25% (2003/04). Overall, the 1991 reform programme led to a sharp increase in the intensity of India's trade links. The pure trade share climbed from around 8% at the end of the 1980s to nearly 20% today. In the same time, GDP rose by roughly 6% per year (compared to 4,7% in the 1980s and only 4% in the 1970s). India is nevertheless still quite closed compared to the other countries surveyed (26th place). Should India continue to lift tariffs as over the last 15 years, a further sharp increase in the volume of trade and substantial economic growth can be expected.

5. Economies set to open further: Emerging markets in the fast lane

Openness forecast points to growth potential

Having looked at how trade relations opened over time we shall now discuss DB Research's related forecast up to the year 2020. The future evolution of economic opening will play a key role in determining growth potential. If, for example, the average annual change in the DBR openness measure as observed in the past 25 years in the industrial countries and the emerging markets is extrapolated for the next 15 years, then according to *Formel-G* the average per capita income of the OECD countries would rise by roughly 16.5% and that of the emerging markets by about 7.5%.³⁵ The outlook for events up to 2020 and the countries that are expected to open substantially will be described by a forecast based on the DBR openness measure.

Country-specific forecasts factor in structural breaks

Forecasts by extrapolation and trend analysis

The DBR forecast of trade openness is based on a two-stage procedure. In the first stage (extrapolation) it is the past development alone of the DBR measure of openness that determines the future course of trade openness. For each country, we extrapolated from the historical time series for the years up to 2020 – partly using linear and partly using non-linear methods – to ensure the best possible mathematical representation of the country-specific data. The result is called the baseline forecast. The second stage (trend analysis) refines the results from the baseline forecast, since both the internal and external knowledge derived from trend and future research on the individual countries can be incorporated into the forecast. This method enables us to identify future structural breaks, input them into the forecast, and in this way raise the level of forecast reliability. We use the DB Research trend map as the basis for our analysis. It covers 21 global trends that have been combined into six consistent trend clusters:

- Opening of work and society
- Enlarging scope of life
- Conquest of smallest structures
- Global networking in business and politics
- Process virtualisation in networks
- Restriction of growth

Pace of change in trend cluster plays crucial role in forecast

For a description of the different trend clusters we refer readers to DB Research's introductory study entitled "Global growth centres 2020". The clusters' impact on the development of trade openness varies. It is clear that an intensification of global networking in business and politics has a directly positive effect on the openness of a country. The exact correlation between the individual trend clusters and trade openness will be discussed in greater detail in the following analysis of countries and regions. However, the baseline forecast is revised on the basis of the trend analysis only if the pace of the processes described in the trend cluster changes over time. If a trend cluster develops just as quickly in the future as in the past, it provides no additional information beyond the simple extrapolation of our baseline forecast. If the pace changes – when, for instance, a country forges stronger economic and political links with foreign

³⁵ See Bergheim, S. et al. (2005): Global growth centres 2020: *Formel-G* for 34 economies. Current Issues. Deutsche Bank Research. Frankfurt am Main.

countries – then the pace at which this country opens its doors will also change – in this case the given country will open more rapidly in the future than in the past. Furthermore, we teamed up with Deutsche Bank's country experts to examine several emerging markets and identify additional structural breaks which the underlying trend clusters cannot reflect; this input was also factored into the forecast.

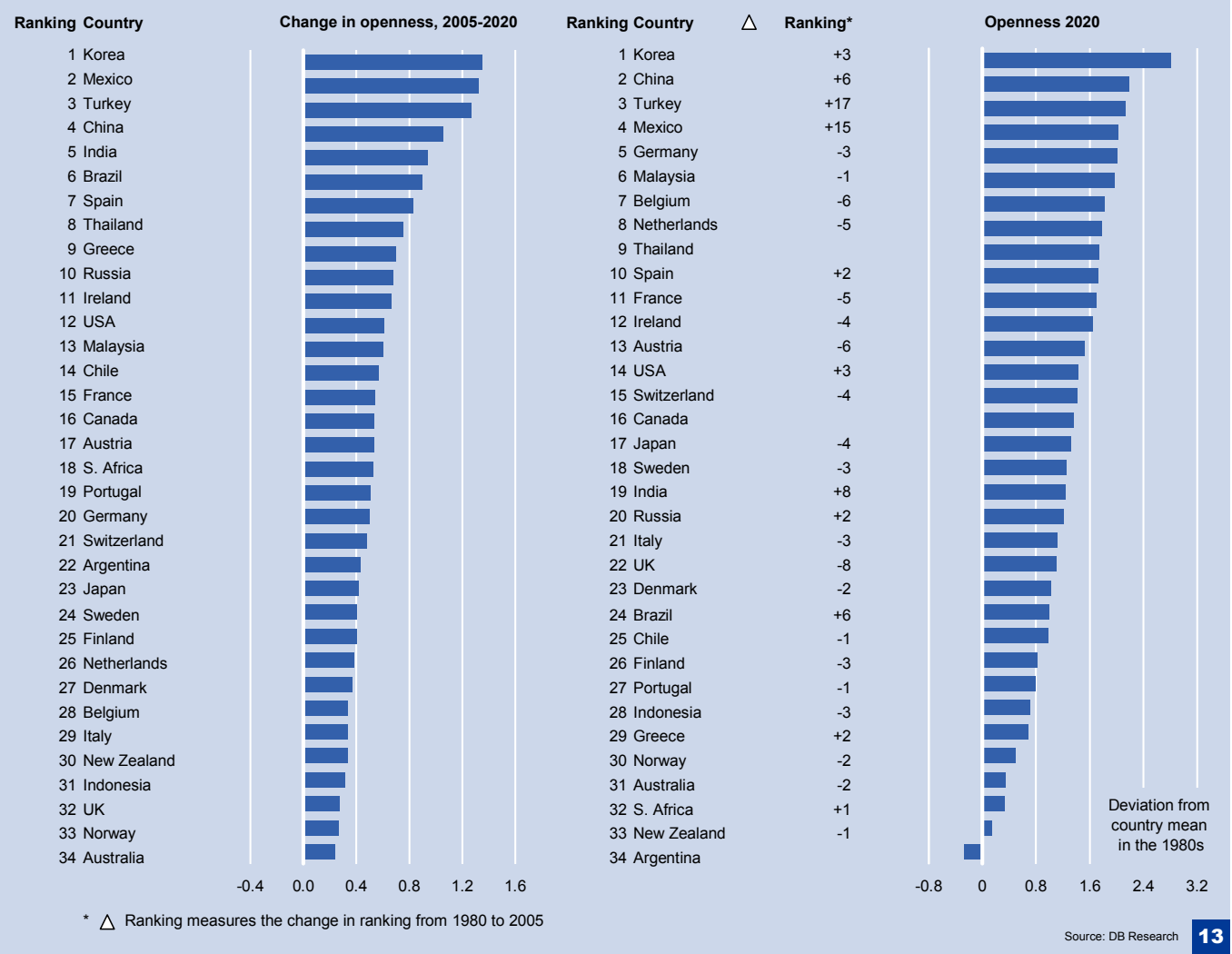
Only two industrial countries in Top 10 openers by 2020

Emerging markets closing the gap to industrial countries

A look at the future development of openness in the 34 selected countries produces two important findings: first, all the countries will continue to open their doors to international trade in the next 15 years. And second, the emerging markets will continue to accelerate the process of catching up with the industrial countries until 2020. Of the 10 countries set to open most by 2020 only two are industrial countries – Spain and Greece; not a single industrial nation makes it into the Top 5.³⁶ Leading the race are Korea, Mexico and Turkey. They will open more than twice as much as the average players (USA, Malaysia) in the next 15 years. The pattern is similar for the trend in the overall group of emerging economies in comparison with the industrial countries. With an average increase in the DBR openness measure of 0.82 the degree of opening in the emerging markets will be nearly twice as large as in the industrial countries, where the reading is 0.46.

³⁶ The small number of industrial countries in the Top 10 of the countries set to open most going forward comes mainly as a result of the high starting level in the industrial countries, as was already discussed above.

Turkey and Mexico advance to the vanguard by 2020



Turkey and Mexico jump into top group

These immense differences in the dynamism of opening will also have an impact on the level of openness up to the year 2020. While the industrial nations still lead the ranks of the most open economies today, just one of these nations will be left in the Top 5 countries in 2020: Germany, in 5th place. And the emerging markets will close the gap to the industrial countries over the next 15 years not only in the top echelons but also as regards the overall average.

On a closer examination of the individual countries, the first point to note is that Turkey and Mexico will continue on their successful paths of the last 25 years in the future, too. They will make the biggest jump in the rankings of the most open economies – Turkey from 20th (2005) to 3rd (2020) and Mexico from 19th to 4th – and thus establish themselves in the top group next to Korea and China. This deregulation will enable Korea and Mexico to raise their per capita income by around 18% in the long term. The current leaders – Belgium, Germany and the Netherlands – will lose ground and drift towards the bottom half of the Top 10.

Argentina will remain the most closed economy

Among the emerging markets, not only Korea, Turkey and Mexico will improve in the rankings. China, India and Brazil will outshine the rest. Argentina, which has ranked last over the past 25 years, will open appreciably in the next 15 years, but will be less dynamic than all the other emerging markets in the group under review except

Indonesia and still be the most closed economy in 2020. In the process, Argentina's GDP will see long-term expansion of about 6%. Looking at today's industrial countries, Spain, the USA and Greece are the only ones anticipated to climb in the standings.

In the following we shall take a more detailed look at how certain countries and regions will open their economies in future, focusing particularly on the influence of global trends.

Pronounced opening in Asia: Korea, China and India are the stars

Asia has recognised the forces and advantages of globalisation. Of all the regions Asia (excluding China) has opened most over the past 25 years, and it is set to stage a repeat performance in the next 15 years. While the fruits of past opening resulted primarily from a pronounced catching-up process, the trend suggests that going forward Asians will want to benefit as much as possible from global business links and to this end will be increasingly keen to play a part in shaping the globalisation process. The desire to open structures seems very strong. This explains much of the immense economic growth in the region.

Services will increasingly be offered internationally

The core group in Asia consists of Korea, China and India. In the near future they will continue the opening trend of the past few years and benefit particularly in the medium term from a variety of global trends. One of the most important trend clusters is "global networking in business and politics". Services will increasingly be offered internationally. As key target countries for offshore activities, China, India and Korea will substantially intensify their cross-border trade. At the same time, many Asian countries will further deregulate their markets at the national level, allowing competition to increase. This also applies to the elimination of non-tariff trade barriers, which will help boost foreign trade. Global institutions, which are increasingly gaining importance, raise the level of legal certainty in the emerging markets and provide a platform for the conclusion of free trade agreements (WTO); it was not until last January that Thailand signed such an agreement with Australia. Another key global trend will be "process virtualisation in networks". Broader and better electronic networking will further slash transaction costs in many countries of Asia. Existing trade links will become more efficient, and new ones will be added.

Deregulation will increase competition

Electronic networking increasing

Japan's role still unclear

All in all, most of the big Asian economies have done their homework, taken numerous steps to liberalise trade and are well equipped for future global trends. Indonesia is the sole exception. Up to now it has not managed to open its economy substantially, and few stimuli are to be expected going forward. While China and India are in discussions to establish a free trade zone, Japan could find itself left behind by the Asian tigers. The latest bilateral trade data posted by China and Japan show that Japanese companies are increasingly seeking to forge trade links with China; however, the Japanese government has scarcely done anything to support these efforts.

Latin America is hot on Asia's heels: Mexico and Brazil lead the way

The big economies of Latin America will liberalise at roughly the same rate on average as their Asian counterparts until 2020. Argentina will – as in the past – bring up the rear, while Mexico and Brazil are the countries that will open up the most. Mexico will play a special part in this respect. Mexico in particular has enjoyed

NAFTA impact will be sustained in future

increased trade with the US and Canada thanks to the 1994 North American Free Trade Agreement (NAFTA). As a result of this relationship Mexico will also continue its vigorous liberalisation in the next few years, particularly as several trade restrictions have only recently been lifted or will only be abolished over the next few years. Nevertheless, the question posed by many people is whether the NAFTA effect will peter out at some stage and Mexico's opening will lose some of its vitality; after all, there will be no "second NAFTA". A closer look at Mexico's past development shows, however, that Mexico's trade liberalisation already began when it joined the GATT in 1986 and not only once it had become a NAFTA signatory. Quite to the contrary, since the mid-1980s Mexico's rapid opening has been maintained at a relatively constant pace up until now. Nevertheless, a continuation of this trend is not guaranteed, even though a lot suggests there will be sustained opening in future, too. Among those benefiting from process virtualisation in networks will be Mexico – as well as Brazil, Chile and Argentina. An increasingly broad and improving electronic infrastructure is the basis for boosting trading activity with Spain, which could develop into the "Latin American gateway" to Europe.

Europe: Spain, Greece and the potential EU member state Turkey will open up the most

On average, Europe will open only half as much as Asia and Latin America until 2020 and also far less vigorously than in the past. Within Europe there will be wide variations in opening.

Few stimuli in the UK or Norway

Britain and Norway will bring up the rear in terms of opening. Both countries suffer from a slow rate in the past. Moreover, few additional stimuli are expected from the development of the most important global trends. While the "global networking in business and politics" progresses in many European countries, it could even decline in the UK – if the country were to leave the EU. But also Belgium, the Netherlands and Germany will only open up comparatively little in future. This, however, has to do with the fact they are already very advanced in this respect. So the three countries that are currently the most open of all the industrial nations and emerging markets we surveyed will also remain the most open of all industrial countries in future.

Germany has potential in e-commerce, but...

Germany will play a special part in "global networking in business and politics" and will expand the "process virtualisation in networks". A rising number of internet and mobile phone users combined with a still modest e-commerce segment offer potential for further opening. The "restriction of growth" trend cluster could slow down the continued opening of Germany. The risk of social tensions (caused by increasing income inequality, rising (youth) unemployment, greater risk of poverty, and the creation of parallel societies in increasingly urbanised areas) could destabilise trading relations and push up transaction costs.

... there is the risk of increasing social tensions**Spain and Greece the leading industrial nations**

Spain and Greece, by contrast, should form the vanguard of the liberalising industrial nations until 2020. Spain will benefit from its liberalisation activities of the 1990s as well as from its intermediary function between Europe and Latin America. "Process virtualisation in networks" will take centre stage in this respect. In Greece trade liberalisation is being driven forward via an "opening of work". The currently low level of urbanisation, the paucity of labour migration

Turkey benefitting from prospect of joining the EU

and relatively inflexible work areas and career paths harbour huge potential for the future. If this is exploited, which we expect to occur, the “opening of work” will intensify the volume of multicultural contacts, which in turn are the prerequisite for an increase in international trading relations. Greece’s neighbour, Turkey, has liberalised enormously in the last 25 years – as described above. This trend should continue in the next few years, as long as the prospects remain positive for the country’s accession to the EU.

6. Concluding remarks

Some 150 years ago Marx and Engels forecasted that “in place of the old local and national seclusion and self-sufficiency, we [will] have intercourse in every direction, universal interdependence of nations”. They have been proved right; since the middle of the 20th century at least the globalisation trend has been unbroken. And in the future, too, the biggest industrial and emerging nations will become even more open to international trade. This process will progress in very different ways. Some countries, like Korea, Mexico and Turkey, will continue to liberalise extremely vigorously over the next 15 years, while others by contrast will participate in globalisation only slowly, such as Indonesia or Argentina. That is why it is important for each country to be assessed separately. If we conclude that a country will open up particularly extensively, high economic growth can also be expected there in future – increased trade and foreign direct investment provide numerous growth stimuli. China is the best example of this: its rapid opening has made a key contribution to the high growth rates and will continue to drive the transition process in future, too. While countries like India have also recognised these advantages in the meantime, the political course for countries that remain closed – like Indonesia and South Africa – can only be to open themselves up to international trade and capital flows.

Marco Neuhaus (+49 69 910-31519, marco.neuhaus@db.com)

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