

Trade Winds: shaping the future of international business



Foreword

150 years ago HSBC first opened its doors in Hong Kong to serve the needs of businesses trading internationally.



Increasingly we are seeing change to the way businesses operate and the way in which goods and services are trading around the world. As business has changed so too has the world around us, driven by two huge waves of globalisation which have brought nations and people ever closer. From the ancient Silk Road that introduced Chinese goods to the Roman Empire to

today's digital marketplaces of eBay, Alibaba, MercadoLibre and Amazon – trade between people, cultures, and countries has proved a critical element of human development.

Today we are on the cusp of a third wave of globalisation anchored by new technologies and increasing economic integration. It promises to take nations out of poverty and improve quality of life across the world. Radio took 38 years to achieve 50 million users; a target achieved in just three years by the internet and in a single year by Facebook. When we consider the future in this context, there are many great opportunities but also uncertainties for the business world.

In celebrating 150 years of HSBC we have looked to the past to understand the factors behind the first two waves of globalisation and to help us discover what the third could look like. This report aims to act as a guide and inspiration for those who are already looking to help shape international business.

Stuart Tait Global Head of Trade and Receivables Finance, HSBC

Contents

Trade Winds: shaping the future of international business

Executive Summary	2
Introduction	4
Opening up the world: the Trade Winds	4
Trade wind one: The march of industrialisation	4
Trade wind two: The plummeting cost of logistics and communications	4
Trade wind three: Market opening through trade policy	5
Trade wind four: The evolution of company operating models	5
Chapter one: The first wave of globalisation, 1865–1913	6
The march of industrialisation	6
Breaking the 'tyranny of distance': Plummeting costs of transport and logistics	7
Liberalisation of trade policy	7
The changing face of the trading world	8
Globalisation interrupted: World War I and its aftermath	9
Chapter two: The second wave of globalisation, 1950–2007	11
Age of prosperity: 1950–1973	12
Industrialisation of Asia: 1974–1990	13
Age of hyperglobalisation: 1991–2001	14
Global supply chains mature: 2001–07	15
The changing face of the trading world	15
Globalisation interrupted: The financial crisis	16
Chapter three: The outlook for international trade, 2015–2050	17
Industrial Evolution: digital innovation and the drive to sustainability	18
Trade movements: The role of transport and logistics	19
Reverse innovation and mass customisation	19
Trade liberalisation: Step by step	20
Tomorrow's trading landscape	21
Globalisation hurdles	21
Conclusion	24
End page	25

Executive Summary

This report explores how international business has changed over 150 years and what may come next. It aims to provide practical insight and considerations for the business leaders we work with around the world. In tracing history and then looking forward, we have identified four key factors – or trade winds – that are a constant and significant presence:

- The march of industrialisation
- The plummeting cost of transport and logistics
- Liberalisation of trade policy
- The evolution of company operating models.

The need for trade

Saudi Arabia is the world's largest producer of oil but it is not self-sufficient. If its residents want to buy cars, the country must trade with countries such as Japan, the United States and Germany. Trade arises because countries differ in their abilities to produce the goods and services demanded by their citizens. The uneven global distribution of natural resources, capital stock (factories, machinery, equipment) and skilled labour force drives supply and demand around the world.

As economies evolve, what they trade evolves too, from exporting natural resources and raw materials to selling high-value-added products and services. This activity then increases the value of a nation's economic position.

Historians have distinguished two significant periods of rapid trade expansion – what we refer to as waves of globalisation – over the past 150 years. The first began in the second half of the 19th century and lasted until the outbreak of the Great War. The second started after World War II and lasted until the recent global financial crisis. Although growth in trade volumes has been lacklustre in recent years, our analysis provides reasons for optimism that growth will pick up over the next few years, allowing a third wave of globalisation to unfold that will continue to revolutionise the global economic landscape.

Wave one: 1865-1913

Looking back to 1865, Britain was the world's dominant global powerhouse, leading the way through the industrial revolution that in a short timeframe saw it reverse the direction of textile trading with India, import refrigerated foodstuffs from as far afield as Australia, and form the basis of an open market with wider Europe. In this first wave of globalisation, the value of merchandise trade increased fivefold, from US\$67bn in 1865 to US\$310bn¹ and spread through Europe and to the US. But this pace of expansion slowed abruptly during the two world wars and Great Depression of the early twentieth century, which undermined the process of globalisation for several decades.

Wave two: 1950-2007

After World War II global power shifted further west, with the US taking pole position and opening up a 'Golden Age' of prosperity. Consumers discovered new tastes for foreign goods, and their demands created huge opportunities for economies such as Japan and the US to export everything from cars to washing machines and televisions – a new form of industrialisation.

Trade liberalisation came to the fore after World War II with governments across the globe keen to embrace new ways of working together for the greater good. The cost of transportation continued to plummet, bringing down barriers to exporting. After a temporary slowdown in the expansion of global trade in the 1970s linked to the oil crises of this period, a number of developing economies in Asia seized the opportunity to jump-start their process of industrialisation and fuel the expansion of their economies through export-led growth.

By the 1990s, the age of hyperglobalisation was born, with a new generation of multinational companies being created to take advantage of an increasingly interconnected world to develop global supply chains. These companies deployed new operating models (e.g., platform-based, collaborative models) that acted as a huge driving force for growth in this period, and while this momentum slowed in the subsequent recession of the 2000s, they will continue to play a significant role in coming years.

In this second wave of globalisation, the value of merchandise trade increased more than 30-fold from US\$450bn in 1950 to US\$14.6trn by 2007.

Wave three: Today-2050

Global trade volumes have disappointed recently, but our projections indicate that an upturn in growth may be just around the corner. Although there remains downside risks to the outlook, the next few years should carry the global economy into the next wave of globalisation, critically underpinned by sophisticated and pervasive digital technology that reduces international trade barriers, improves communication between cultures, levels the playing field for entrepreneurs and startups, and forms the foundation for an "always-on" global economy. Our projections show that world trade is expected to quadruple in value to reach \$68.5trn of goods

¹ All historic figures measured in 2010 prices and US dollar exchange rates

Executive Summary

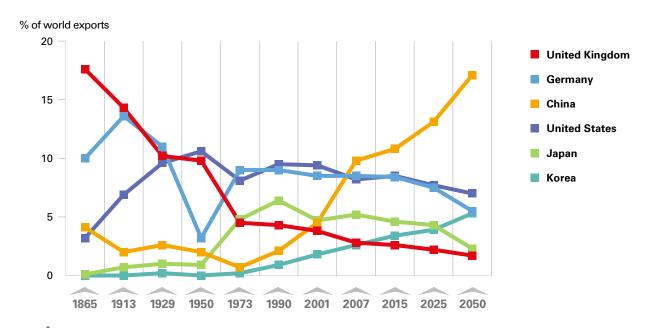


Figure 1. Percentage of world exports

traded each year by 2050. The world market and patterns of trade may look very different by then as shifting demographics and economics catch up – there will be almost three billion new members of the middle class by 2050, most of whom will be located in emerging markets. Still, growth will continue to be driven by the same four trade winds that carried the first traders across the open sea.

- The march of industrialisation: In the third wave of globalisation, mass production will shift to mass customisation. Companies must consider how to develop products and services that are hyper-localised. Some companies have already embraced the concept of reverse innovation, where products and services are developed first in the emerging world and then brought to the developed economies. Executives must reconsider how and where items are being produced, and an optimal global value chain that serves the specific needs of regional customers.

- Plummeting transport and logistics costs: Consider how improved global connectivity and the lower cost of transport/logistics could lead to working with new partners in new countries which may benefit business and the economy. For example, sensors and radio frequency identification device tags are still expensive today, but their rapid adoption will ultimately lead to lower costs, safer handling of goods and significant reduction in spoilage and waste. China's One Belt, One Road project and its Asia Infrastructure Investment Bond initiative also hold the promise of supporting infrastructure spending in Asia and thereby lowering transport costs in the region.
- Liberalisation of trade policy:
 Open markets can be good for
 everyone not only do they bring
 new goods and services to an
 untapped market, but they lead to
 greater economic development
 and better quality of life. Executives
 should push for more liberal trade
 policies to drive continued business
 and macroeconomic growth.

Source: Maddison, IMF, Oxford Economics

"Our projections show that world trade is expected to quadruple in value to reach \$68.5trillion in goods traded each year by 2050."

The evolution of company operating models: Traditional ways of conducting business will evolve over the next several decades, as companies adopt more flexible and agile operating models. In the future, large multinational conglomerates will increasingly compete with smaller, more nimble networks of micro-mutinationals that create their own specialised value chains. Executives will need to consider how to strategically position themselves to take advantage of such business platforms.

Introduction

For the majority of us today, the global marketplace is both pervasive and invisible. We participate in it – and benefit from it – with hardly a thought to its magnitude and complexity. Consider the e-mail link to a compelling new business intelligence report from Singapore that lands simultaneously into inboxes around the world. Or the latest smartphone designed in the US, assembled in China from parts supplied by businesses from dozens of countries and then shipped to consumers all around the world.

Yet we should remind ourselves how quickly trade has evolved.
Looking back 150 years, the physical and cultural distance between many nations seemed vast. Global networks have helped lift millions out of poverty; improved quality of life, education and and health; and connected nations as never before.

Businesses on every continent have evolved to take advantage of this global progression. Their trade in goods, ideas, and technological innovations has served as a catalyst for economic growth, burgeoning creativity and greater cultural understanding.

This progress has not just come from enterprising individuals, but also from organisational forces that have helped drive globalisation as we know it today. As we look towards the future, we can examine the key historic drivers of growth to help us better predict what may come next.

Opening up the world: the Trade Winds

In our analysis of academic papers, historic economic data and interviews with luminaries around the world we have identified four key drivers of nations' propensity to trade. We have called these our four 'trade winds', paying tribute to the drivers that shaped commercialism in the 18th century.

Definition of Trade Winds

The word 'trade' comes from the term 'fixed track' and was originally applied to winds that took ships on a set course. By the eighteenth century 'trade winds' was used to describe routes that favoured commerce.

The trade winds of the Atlantic saw Portuguese merchants travel through the Atlantic while in the Indian Ocean the monsoons dictated when merchants travelled East and West and therefore the goods that flowed in different directions.

Today they are a byword for a driver of trade development.



Trade wind one: The march of industrialisation

As countries develop, their economies evolve from producing mostly raw materials to manufacturing finished goods. Before the Industrial Revolution of the 18th Century, most people lived lives of subsistence, growing their own food and making their own clothes. The growth of industry and manufacturing has had a transformative effect on modern global society and improved the quality of life for billions. Mass production and specialisation have made available a broad range of manufactured goods. We believe the next phase of industrialisation will be marked by a shift from mass production to mass customisation thanks to new technologies such as 3D printing and increasingly sophisticated business operating models such as reverse innovation.



Trade wind two: The plummeting cost of logistics and communications

The continued spread of the internet – and the Internet of Things – in coming years will expand the global marketplace, providing opportunities to access new customers and fulfil their needs at lower cost. The internet, bolstered by powerful sensors and "smart" products, will deliver faster and cheaper communications, not to mention the ability to instantly transfer funds. These capabilities greatly reduce friction in the trading system.

We can look to history to understand how such innovation boosts trade. The cost of transport and logistics fell due to the invention of, for example, the electronic telegraph in the 1840s and container shipping in the 1950s. As a result trade between countries became easier.

Introduction

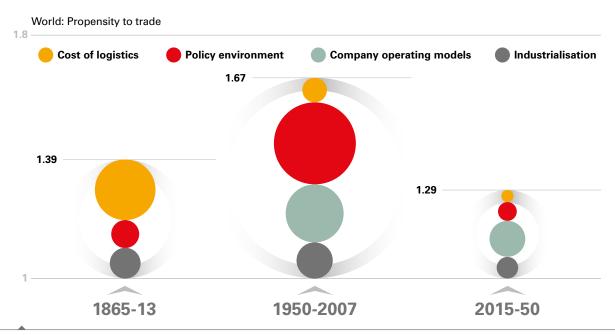


Figure 2. Three waves of globalisation

Source: Oxford Economics



Trade wind three: Market opening through trade policy

We believe there are good reasons to be optimistic about multilateral trade liberalisation in the years ahead, with negotiations on a number of important accords advancing or close to being finalised.

History tells us that lowering the taxes paid on exports or imports (tariffs) and reciprocal trade policies (free-trade agreements) promotes trade flows by opening up markets to international competition and reducing transaction costs. This smooths the path for international trade and has a significant impact on the prosperity of nations. Countries that are open to international trade grow and flourish more quickly than those with closed economies. Current negotiations aim to tackle not only traditional trade barriers like tariffs and quotas, but also barriers behind the border (e.g., due to regulatory mis-alignment or inconsistent standards).

Trade wind four: The evolution of company operating models

Over many decades, companies have developed more sophisticated organisational approaches to serve global markets. Most companies today do not operate merely in their home country, but through an intricate, global value chain with dispersed networks of suppliers, manufacturers and distributors. Technological advances will increase the resilience and responsiveness of supply chains in coming years, making it possible to track individual items from production to store shelf and creating opportunities for product customisation.

Over time the impact of these four drivers has shifted as trade has developed as per Figure 2. The first wave of globalisation was initially catalysed by the plummeting cost of logistics and the favourable policy environment, which facilitated trade in a range of new manufactured products arising from the process of industrialisation; the second wave saw international company operating models starting to play an increasingly important role. Looking to the future, each of these four drivers will continue to have a significant influence on trade.

The first wave of globalisation, 1865–1913

The world economy leading into 1865, when HSBC was first established as a bank, was very different from the one we know today. Britain was the premier global power with an empire that covered almost a quarter of the world's land, and also held significant influence over many countries outside the formal empire, including China and Argentina.

The rise of industrialisation and plummeting transport and logistics costs rapidly altered the face of trade. Developing nations increasingly demanded commodities to fuel their growth. The demand for high-value perishable exports such as coffee, tea and refrigerated meat and dairy drove trade too.

World trade volumes increased almost fivefold from 1865 to 1913. Trade was very much dominated by Europe throughout the period. During this time less than a quarter of global merchandise trade occurred between non-European countries.

Trade development: the shift away from agricultural products

Despite the rise of industrialisation, the world was still a fairly homogenous place in 1865, mainly characterised by poor, agrarian societies. International trade volumes were small, as freight rates on long hauls were prohibitively high for all but high-value agriculture goods such as coffee and spices, originating in Africa and Asia and destined mainly for the industrialising countries of Western Europe. Many people had very little money to spare to buy international goods.

Agricultural products, such as raw cotton for Europe's textile mills, accounted for around 60% of global trade in 1865. The remainder largely comprised manufactured products such as textiles travelling from Britain to its colonies and dominions.

As the world economy developed,

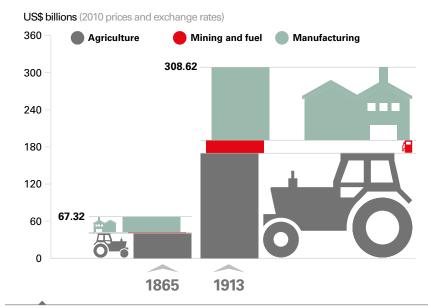


Figure 3. World trade by product

Source: Maddison, Oxford Economics

the composition of trade gradually shifted away from agricultural products to manufactured goods. Mining and fuel grew in importance with the advent of the combustion engine.

Figure 3 above shows how these trends in trade emerged during this first phase of globalisation.

The march of industrialisation

The first phase of the Industrial Revolution that began in Britain in the 1780s had already spread to Belgium, Germany, other parts of Europe and the United States by 1865. This enabled a transition to new manufacturing processes, including the increasing use of steam power and factories.

"In 1865, Britain was the premier global power with an empire that covered almost a quarter of the world's land."

From 1865 to the turn of the century, industrialisation spread to Russia, Sweden, the rest of Europe and Japan. Germany and the US surged ahead in steel, chemicals and engineering products as a result of

HSBC opens for business in Hong Kong, Shanghai and London East and West

1865 1866 1867 1868 1869 1870 1871 1872 1873 1874

Global mercantile crisis prompts failure of many of HSBC's competitors Underwater cables join Mumbai, Singapore and Hong Kong in global telegraph network

The first wave of globalisation, 1865–1913

the arrival of the internal combustion engine. Industrial dependence on mineral resources also increased rapidly, with European countries exploiting their colonial ties with resource-rich nations such as Canada, South Africa and Australia. European investment in transport infrastructure in developing countries facilitated migration and opened new markets for manufactured products.

Breaking the 'tyranny of distance': Plummeting costs of transport and logistics

The plummeting cost of transport and logistics became the key driver of the first wave of globalisation and helped to change the way nations did business and operated internationally. Between 1870 and 1900, the cost of transatlantic transport fell by 30% and significantly reduced barriers to trade. For example:

- Improvements in steamship design during the second half of the 1800s led to sharp falls in transport costs and halved transatlantic crossing times from 8–9 days in 1865 to 4.5 days by the early 20th century. This opened up new opportunities for US exporters—for example, exports of US wheat to the UK increased 32fold, contributing to a 50% price fall between 1865 and 1900.
- The opening of the Suez Canal in 1869 created a short-cut from Europe to Asia. It was no longer necessary to sail around Africa which had been impossible for

Reversing fortunes: How industrialisation shifted textile production from East to West

The textile and iron industries played important roles in the Industrial Revolution, allowing European economies to leapfrog nascent industries in China and India. For example, the Indian textile industry was considered the global leader during the 18th century, but a series of inventions in Britain, such as the spinning jenny and the

water-powered loom, increased production of wool and cotton. The application of steam power to the textile industry eventually led to the growth of the factory system, which brought a massive inflow of cheap manufactured products from Europe (mainly Britain) into India. Indian manufacturers struggled to compete, and as a result the country was importing 70% of its textile requirements by the end of the 19th century.

steamships due to the amount of coal required on board.

- In the late 1860s, after intercontinental lines were laid, the telegraph allowed high-speed global communications. Merchants could adjust shipments in response to shifts in supply and demand conditions, avoiding the need to wait days for a ship to relay messages across the Atlantic.
- Inland transport costs were significantly reduced by the construction of railways, which expanded internal markets for manufactured goods and lowered the cost of obtaining raw materials.
- By the 1880s, the introduction of refrigerated ships made possible the long-distance transport of perishable goods. This allowed an extensive frozen meat and dairy trade to develop between New Zealand/ Australia and the UK.

HSBC opens in Lyon to facilitate the silk trade from China and Japan into Europe

The liberalisation of trade

During this period the liberalisation of trade also provided a favourable backdrop supporting the growth of import and export. In particular, the use of the gold standard virtually eliminated foreign exchange risk and offered great stability to traders. A plethora of bilateral agreements between European countries in the 1860s also created a more liberal era for trade, which extended to large parts of the developing world through European countries' colonial ties.

These bilateral treaties were initially catalysed by the successful negotiation of a bilateral treaty between Britain and France in 1860. It encouraged other European nations to sign bilateral treaties with Britain and France, so as not to be left outside a trade pact that united these two European powers. Eventually nearly all of Europe was integrated into a highly open market.

HSBC opens office in San Francisco to finance trade between China and the US



375 1876 1877 1878 1879 1880 **1881** 1882 1883 1884 1885 1886 1887 1888 1889

The first wave of globalisation, 1865–1913

The changing face of the trading world

By 1913, the world had become more divided between rich industrial nations and poor primary producers. The UK remained the dominant trading nation at the end of this first wave of globalisation, but Germany and the US had already surpassed the UK in economic output as shown in Figure 4. Meanwhile former leading trading nations such as India, unable to compete with the cheap manufactured goods from Europe, fell significantly behind and eventually reverted to primarily exporting raw materials.

Top trading nations - 1865 (US\$ millions)			Top trading nations - 1913 (US\$ millions)		
Rank	Country	Exports	Rank	Country	Exports
1	United Kingdom	11,816	1	United Kingdom	44,152
2	Germany	6,699	2	Germany	42,016
3	Belgium	5,368	3	South Africa	25,238
4	India	4,864	4	United States	21,277
5	France	4,513	5	France	14,158
6	USSR/Russia	3,429	6	India	13,890
7	China	2,750	7	USSR/Russia	10,066
8	United States	2,152	8	Belgium	8,731
9	Netherlands	2,145	9	Switzerland	7,937
10	Italy	1,688	10	Australia	6,860

2010 prices and exchange rates

Source: Maddison, Oxford Economics



First head office – Wardley House (centre) 1870s

1890

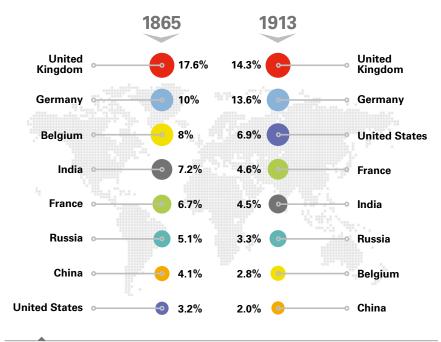


Figure 4. Countries ranked by percentage of world merchandise exports Source: Maddison, Oxford Economics

HSBC opened its first branch in Sri Lanka, on Queen's Street in the capital Colombo Chief Manager, Thomas Jackson took his final leave from the bank. Thomas joined the bank in 1866, one of the very first recruits

1891 **1892** 1893 1894 1895 1896 1897 1898 1999 1900 1901 **1902** 190

The first wave of globalisation, 1865–1913

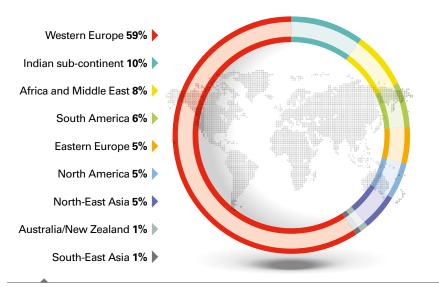


Figure 5. Regional share of world trade in 1865

Source: Maddison, Oxford Economics

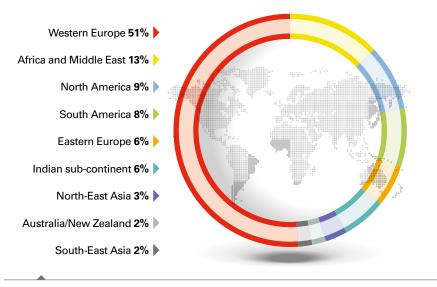


Figure 6. Regional share of world trade in 1913

Source: Maddison, Oxford Economics

HSBC finances the Canton-Kowloon railway, opening up the interior of China

1904 1905 1906 1907 1908 1909 1910 1911 1912 1913

Globalisation interrupted: World War I and its aftermath

The first wave of globalisation came to an abrupt end with the outbreak of the First World War in 1914, which disrupted global trade flows and devastated Europe. The challenges of rebuilding Europe's economies in the aftermath were compounded by the imposition of trade and exchange restrictions. The US also maintained high trade barriers to European exports, which stunted Europe's economic recovery.

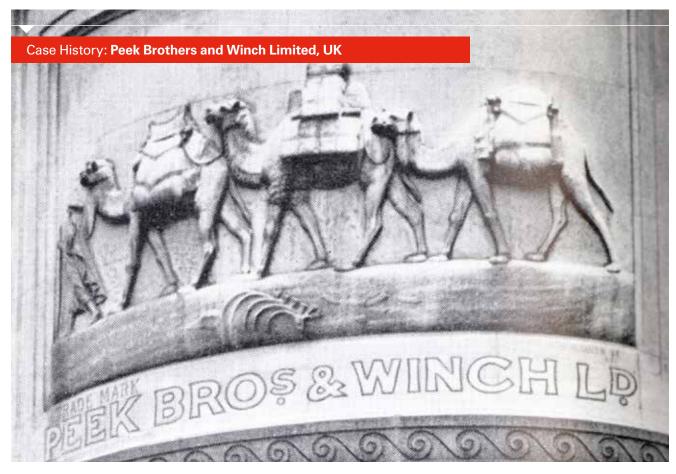
Mounting global financial imbalances were exposed by the Wall Street crash of October 1929, which plunged the world economy into the Great Depression. As demand collapsed, governments resorted to raising tariff levels even higher, compounding the negative impact on global trade flows. The impact of the Great Depression was felt throughout the 1930s and we then saw national extremism and the outbreak of the Second World War.

Global trade expanded at an average annual pace of just 0.8% a year from 1914–1950, down from 3.2% a year during 1865-1913. Western Europe experienced the worst of the fallout, with its share of global export volumes falling from over 50% in 1913 to around a third by 1950. Conversely, this laid the foundation for the United States to emerge as a new economic superpower, with its share of global trade rising from 7% in 1913 to 11% by 1950.

The end of World War II marked the beginning of a new era for international trade, which policymakers increasingly embraced as essential for economic growth. This new environment of international cooperation led to a second wave of globalisation, beginning in 1950.

 $-\nu$

The first wave of globalisation, 1865–1913



W Peek and Company, a tea merchant, was launched by two enterprising brothers in 1810. During the 1830s, the brothers split the company in two, with both establishing success in their own right. This is evidenced by a magazine article from The Grocer Magazine in the 1860s naming the two companies as among the top four leading firms of tea dealers in the UK.

The businesses undoubtedly benefitted from the developments in overseas shipping and the opening of the Suez Canal in 1869 which would have slashed journey times between the East, where the commodities were grown, and the markets of the West.

The headquarters of Peek Brothers and Winch was Peek House, 20 Eastcheap, in the City of London. The building still stands today, complete with a frieze on its facade depicting the camel train used as a trademark for the company's "Camel" brand of tea.

The ground floor of the building became a bank branch in 1896 when The City Bank opened a branch there. This bank was acquired by Midland (later HSBC Bank) in 1898 and the branch remained open in the same premises until very recently. It is likely that Peek Brothers became customers of The

City Bank in 1896 when the branch opened underneath their own offices – although there may have been a longer association between the two. City Bank was renowned for its overseas connections and network of correspondent banks which would have made them an ideal banker for a customer who dealt with suppliers, dealers and importers in many different countries.

There is evidence the company was rocked by the outbreak of the First World War as there are items in the Midland Bank archives which show that the bank was granting the firm overdrafts on short notice in 1914.

The second wave of globalisation, 1950–2007

As the developed economies recovered from war, a new wave of globalisation began. It would eventually lead to an expansion in global trade beyond industrialised economies to developing nations, dramatically changing the macroeconomic landscape. This wave of globalisation was so significant that by 2007 merchandise trade was equivalent to 23% of global GDP, having climbed from just 6% in 1950.

While often classed by historians as one great wave of globalisation, there were four distinct phases for trading nations within this period:

- The golden age of prosperity 1950-1973
- The industrialisation of Asia 1974-1990
- The age of hyperglobalisation 1991-2001
- Global supply chains mature 2001-2007.

As each of these time periods has its own unique developments, we have looked at the trade winds within each in this section. In the post-war period, the policy environment was key as nations came together. This was followed by the industrialisation of Asia and other emerging economies, before a period of hyperglobalisation in the 1990s that shaped the company operating models we know today.

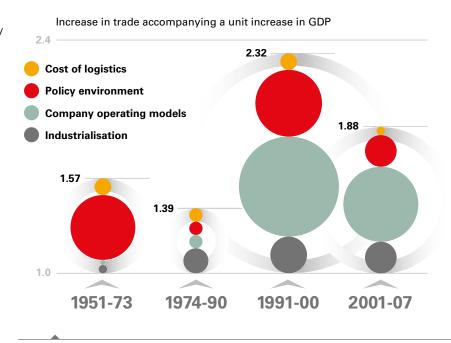


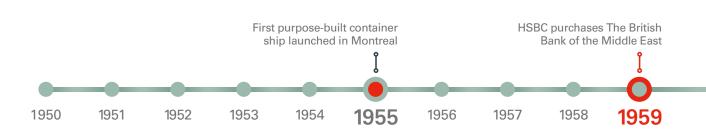
Figure 7. World: Propensity to trade

Source: Oxford Economics

Finally pre-recession business operations continued to be critical, with the establishment of core global supply chains.

In this second wave, the shift from agricultural products to manufactured goods was driven by increasingly sophisticated consumer demand paired with technological advances. Transformations in the scope and nature of consumer demand were an

inevitable consequence of economic development, international market integration and urbanisation. "The growth of trade in this period was more about the exchange of goods, dominated by manufacturers, between countries that were on the whole rather similar," says Gary Hufbauer, Senior Fellow, at the Peterson Institute for International Economics.



The second wave of globalisation, 1950–2007

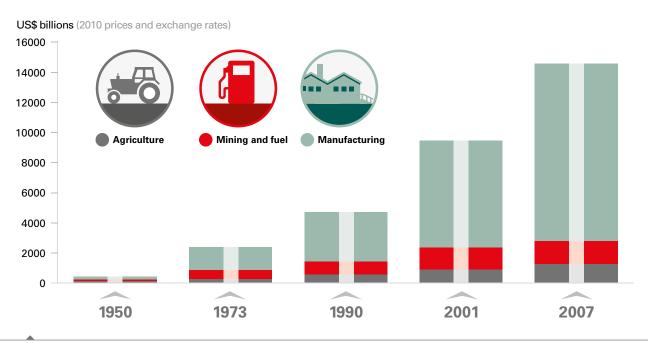


Figure 8. World trade by product

Source: WDI, UN, Oxford Economics

The golden age of prosperity: 1950-1973

Attitudes to trade policy shifted markedly at the end of World War II, as policymakers embraced trade liberalisation as essential for economic growth, and to maintain peace. There was a shift away from the isolationist policies of the interwar period with the establishment in 1944 of multilateral institutions known collectively as the Bretton Woods system: the International Monetary Fund (IMF), the World Bank, and the General Agreement on Tariffs and Trade (GATT). "The growth in trade post World War II was driven in large part by the US's decision to establish

a new system for international economic arrangements," says Dr. Joshua Meltzer, Senior Fellow, Global Economy and development at the Brookings Institute. "A key factor was the US being large enough and strong enough to shoulder the burden to play the dominant role in an increasingly complex international rules-based system. It was clearly in US interests but also in the world's interests."

As economies recovered from the austerity of the war years, consumers developed tastes for more varied, sophisticated and exotic goods. Businesses developed a vast array of new products to capture a greater share of households' rising Businesses developed a vast array of new products to capture a greater share of households' rising disposable incomes.

disposable incomes. People bought cars, televisions, washing machines and other consumer durables, and developed tastes for foreign foods

The second wave of globalisation, 1950–2007

and fashions. Japanese and German exports grew particularly strongly as their factories supplied consumers located mostly in the US and other developed economies.

This era of consumerism produced a number of companies that remain globally respected brands today. One example is the House of Givenchy, the luxury French brand of clothing, accessories, perfumes and cosmetics, which was established in 1952. The founder of the label bearing his name, Hubert de Givenchy, was the first high-fashion designer to create a luxury ready-to-wear clothing line, which was produced in Paris using machinery imported from the United States.

Ongoing logistical improvements also facilitated trade flows during this period. For example, the Suez Canal crisis of 1956/7 prompted the shipping industry to develop specialised bulk carriers and goods began to be shipped via standardised containers, making the transport of goods cheaper and more efficient. Wholesale and retail businesses were able to deliver consumer goods such as cars and electrical goods more quickly and cheaply as a result of new infrastructure, distribution houses and the introduction of machine equipment such as forklift trucks.

During this period global trade volumes surged at an average annual pace of almost 8%. Trade between the industrialised nations grew at an even faster rate, with the share of world trade flowing between the economies of North America and



Hong Kong skyline

Western Europe increasing from 28% to 40%. By 1973, the share of manufactured goods in world trade increased to 64%, up from 51% in 1950.

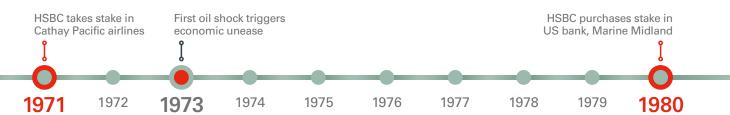
The industrialisation of Asia: 1974–1990

Beginning in the 1970s, export-led industrialisation took off in many developing economies in Latin America (Mexico), Southeast Asia (Malaysia, Thailand, Indonesia) and East Asia (China, South Korea, Taiwan). These economies sought to export manufactured products to Western markets, challenging traditional trade flows in which raw materials flowed north and manufactured goods flowed south.

Additional challenges to developed markets came from a period of

geopolitical instability and volatile transportation costs driven by sharp fluctuations in oil prices, with the average pace of expansion in global trade slowing to around 4% a year. The US suspended the gold standard in 1971, resulting in the collapse of the Bretton Woods System of fixed exchange rates as the pressures of the Vietnam War and domestic expenditure came to bear. Trade policy had a major influence on the pattern of global trade as key trading nations employed protectionist measures to shelter domestic industries from foreign competition. Yet concurrently the formation of the EU internal market drove strong growth in intra-regional trade in Europe. So while the volume of twoway trade between Western Europe and North America stabilised at around 7% of the world total over this period, intra-regional trade in Western Europe continued to climb, rising from 28% of global trade in 1973 to 30% by 1990.

Oil price shocks in 1973 and 1979 temporarily increased transport costs, but the cost of logistics resumed its downward trend in the 1980s. In particular, the use of cargo aircraft grew strongly following the launch of Federal Express (now FedEx) in the late 1970s, enabling the rapid transport of low-weight, high-value items such as electronic goods. One of the most important selling points of FedEx was its guaranteed next-day delivery service. The business quickly expanded and within 10 years was reporting revenues of US\$1 billion.



The second wave of globalisation, 1950–2007

The age of 'hyperglobalisation': 1991–2001

Global trade expanded at an average pace of around 7% a year in the 1990s, resulting in a doubling of trade volumes over this period, while the share of manufactured goods in global trade surged to 75% by 2001. The 1990s also witnessed dramatic shifts in the trading landscape, as the industrialised economies of Western Europe, North America and Japan saw their share in global exports shrink whilst the share of the rest of Asia (excluding Japan) surged from 10% in 1990 to 15% by 2001; China alone more than doubled its share of world merchandise trade over this period from 2% to almost 5%, equating to a value of US\$422bn (measured in 2010 prices and exchange rates).

The integration of China into the global trade system (culminating in its formal accession to the World Trade Organisation (WTO) in 2001) catalysed the evolution of company operating models, spurring the growth of the multinational company. In particular, this drove outsourcing and offshoring of manufacturing production from industrialised nations to Asian economies. Multinational firms used enterprise software to standardise processes and optimise their supply chains globally. This provided a considerable boost to measured trade volumes, as intermediate goods crossed borders multiple times at

"Globalisation in its widest sense was driven by the move to true mass production of globally transportable products, like electronics," says Graeme Philp, CEO of Gambica, the UK Trade Association for the Automation, Instrumentation and Control and Laboratory Technology Industries.

different stages of production.

The rapid industrialisation of the Asian economies led to significant growth in demand for primary commodities, both mineral and agricultural. These were increasingly supplied by Latin America, where commodity exports surged: Argentina and Brazil witnessed growing demand for soybeans; Ecuador, Mexico and Venezuela for oil; and Honduras and Nicaragua for coffee.

The creation of the WTO in 1995 and the ensuing reduction in trade barriers by many major developing countries again led to a more supportive trade policy environment. This period saw the establishment of free-trade areas, with the European Economic Area (EEA) and the North American Free Trade Agreement (NAFTA) both adopted in 1994. Further expansion of the global market occurred as former communist countries opened their borders.

"In the 1990s most countries opened up to trade," explains Ricardo Meléndez-Ortiz, co-founder and Chief Executive of the International Centre for Trade and Sustainable Development (ICTSD). "The WTO, through the Uruguay Round, enabled the effective insertion of developing countries into global markets, as their economies opened up, shifting from decades of import-subsitution policies and ready for the 'big bang' in recent history – the entry into the world trading system of China and a surge of growth, sucking in commodities from the South. Pretty soon China became a major trading partner for almost all countries in the world, including higher income economies."

The first application of the new HSBC hexagon logo, and the use of the HongKong Bank name

HSBC introduces electronic banking for corporate customers HSBC buys Midland Bank in the UK and moves head office to London



1982 19

83

1984

1985

986

1987

1988

1989

1990

0

991

1992

2 1

1993 1994

1981

The second wave of globalisation, 1950–2007

Global supply chains mature: 2001-07

Despite a small and temporary contraction in trade linked to the dotcom crisis of 2001, growth in global merchandise trade volumes grew roughly 7% a year through to 2007. However, the rate at which trade was growing relative to economic output had actually diminished. In part, this reflects evidence that the pace of offshoring was already slowing, as firms in China were adjusting their company operating models to substitute domestic inputs for foreign inputs.

This was also a period when the commodity 'super-cycle' was in full swing, as supply constraints intersected with strong demand from emerging markets to keep energy, metal and agricultural prices rising. The surge in prices provided a window of opportunity for many resource-rich developing economies

in Africa, the Middle East and Latin America to gain an increased share of global trade, in turn improving in their export revenues.

At the same time, the impact on global trade of falling transport and logistics costs was partially offset by rising oil prices. Communication costs also fell significantly over this period as manufacturers increasingly moved their back-office operations to the internet.

The changing face of the trading world

By 2007, the trade landscape had shifted dramatically from that of 1950, when trade was dominated by a relatively small group of industrialised countries, led by the US and a number of Western European economies. China emerged as the globe's leading exporter, having monopolised global industrial production by becoming the manufacturing centre of the

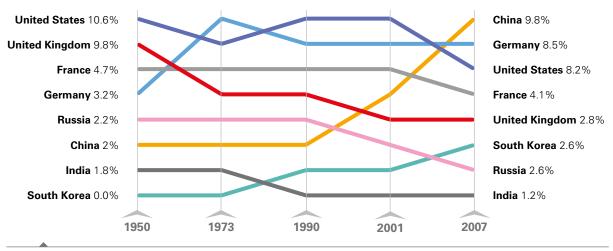
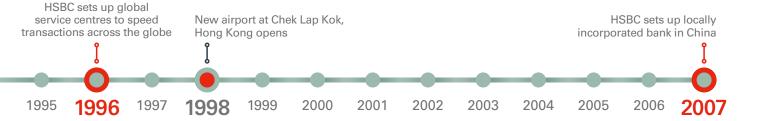


Figure 9. Countries Ranked by Percentage of World Merchandise Exports

Source: IMF, Oxford Economics



The second wave of globalisation, 1950–2007

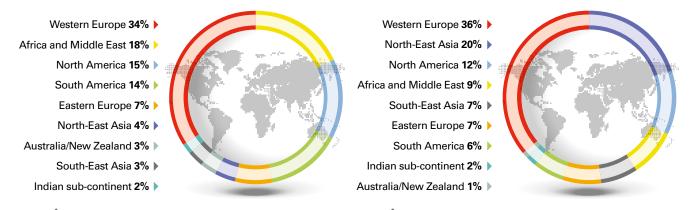


Figure 10. Regional share of world trade in 1950 Source: IME Oxford Economics

Figure 11. Regional share of world trade in 2007 Source: IMF. Oxford Economics

world. Rapid industrialisation of other Asian nations, such as Korea, also quickly increased the share of these economies in global merchandise trade.

Meanwhile, the role of the US and Europe as "workshops of the world" had declined. Domestic manufacturing in their economies fell as they turned instead to rapidly growing service industries in the new Information Age. Intra-regional trade within Asia Pacific had also increased substantially in importance, rising from just 3% of global merchandise trade flows in 1950 to 14% by 2007. Nevertheless, Germany and the US in particular remained powerful forces, reflecting their ability to adapt to the changing global economic landscape and retain a competitive advantage in high-skilled, research-intensive sectors such as precision engineering.

Top trading nations - 1950 (US\$ billions)

Top trading nations - 2007 (US\$ billions)

Rank	Country	Exports	Rank	Country	Exports
1	United States	47.8	1	China	1,429.0
2	United Kingdom	44.2	2	Germany	1,243.5
3	France	21.1	3	United States	1,198.9
4	South Africa	19.0	4	Japan	762.7
5	Canada	18.2	5	France	594.1
6	Germany	14.5	6	Italy	485.0
7	Australia	10.9	7	Netherlands	469.8
8	Netherlands	10.4	8	Canada	448.8
9	USSR/Russia	9.8	9	United Kingdom	410.1
10	Belgium	9.8	10	South Korea	383.4

2010 prices and exchange rates

Source: Maddison, IMFWEO, Oxford Economics

Globalisation interrupted: The financial crisis

In 2007-08, the global economy was rocked by the most significant financial crisis since the Great Depression, beginning in the US and extending to virtually every country. The downturn in demand, coupled with a drying up of credit, resulted in a collapse in global trade that was unprecedented in terms of its speed and severity. After peaking in late 2008, merchandise trade volumes fell by 20% in the first half of 2009. Although trade flows subsequently bounced back, growth disappointed in subsequent years, averaging less than 3% annually from 2007 to 2015.

"The period 2008 to 2015 was unique," says Mr. Meléndez-Ortiz of the ICTSD. "For OECD countries it was a period of declining trade volumes, but if you look at other parts of the world it was a period of huge growth in trade between China and the South as well as South-South. In Latin America this period was the best ever for trade and investment. Although this recent performance has given rise to some gloomy prognoses regarding the future of international trade, we remain confident that a third wave of globalisation is just around the corner.

Chapter three The outlook for international trade, 2015–2050

The world economy continues to feel the repercussions of the global financial crisis and the move to a "new normal" in China is also weighing on world trade. This is likely to influence the near term too. However, the four trade winds stand ready to usher in the next wave of global trade. Although downside risks remain for the next couple of years, our forecasts indicate that global merchandise trade will experience a cyclical recovery over the next few years as the global economy strengthens, pushing growth from around 3% per year on average between 2011 and 2014 to 5% average annual growth in 2015–25. This rate of expansion is slower than in the pre-crisis period, and represents a natural moderation to a more sustainable and stable rate of continued expansion as the global economy matures. But our projections build upon an already high starting point for trade volumes, so that total goods exports in 2050 are expected to reach \$68.5trn (measured in constant 2010 prices and exchange rates). This represents almost four times the volume of global exports in 2015 and over 150 times the volume traded in 1950.

"The world's population will continue to grow, which means there will be more people consuming more goods. This will result in the growth of GDP and trade too." Stuart Tait, Global Head of Trade and Receivables Finance, HSBC. But how will the four forces continue to drive business change, and which regions will see the most rapid growth? The above chart shows how the global propensity to trade has shifted over the period of this report and the relative contribution of each of the four trade winds driving these shifts.

Using history as our guide, we can make forecasts for the future trends that will shape the global

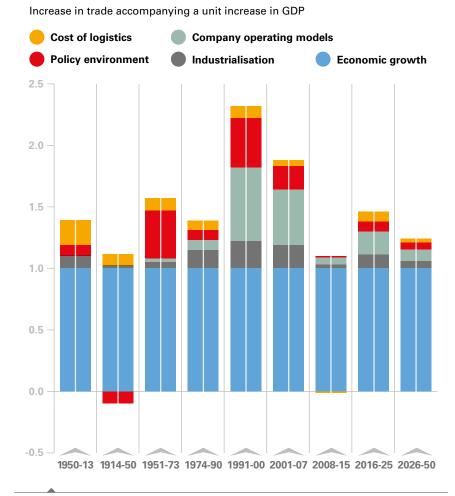


Fig. 12: World Propensity to trade

Source: Oxford Economics

"The world's population will continue to grow, which means there will be more people consuming more goods. This will result in the growth of GDP and trade too."
Stuart Tait, Global Head of Trade and Receivables Finance, HSBC

landscape over the next 35 years. In this chapter we look first at how these trade winds will reshape how we think about innovation, business operations, supply chains, and policy. Then we explore how these trends will affect the future macroeconomic landscape.

The outlook for international trade, 2015–2050

Industrial evolution: digital innovation and the drive for sustainability

Digital disruption has upended the traditional business models of virtually every industry. When was the last time you purchased a DVD, or had a roll of film developed? While such advancements have certainly forced many companies out of business, it has also created tremendous opportunity for new start-ups in every corner of the globe, many of which are unencumbered by a legacy of technology systems and outdated business models that plague larger corporations.

As mobile, cloud and sensor technologies evolve, so does the ubiquity of smart, connected products. This increasing expansion of the Internet of Things (IoT) benefits both the user and manufacturer. For example, when refrigerated meats on a delivery truck exceed a certain temperature, their RFID (radio-frequency identification) tags can send an alert to the driver, who can make immediate adjustments to prevent spoilage. Smart energy readers in homes—such as Google's Nest Learning Thermostat—reduce energy waste and costs by automatically adjusting the temperature when no one is home. And new wearable devices are rapidly being introduced into the market that can monitor physical activity, heart rate and sleep patterns. By 2020, Cisco predicts there will be a staggering 50 billion networked devices.3

Many of these products are already being developed.⁴ Examples include a washing machine ordering new washing liquid, a refrigerator requesting milk and texting to say which supermarket is selling it at the best price, or a car going in for a service with a list of repairs. We will see a more efficient and sustainable approach to production as these products improve. Some of the executives we interviewed for this report predict a longer life cycle for white goods as components are ordered and replaced. This will lead to a different model of ownership and consumption, with a car leased by the consumer, and the manufacturer replacing parts. Smart businesses are already investing in this technology or becoming part of the loT supply chain.

A driving force behind this innovation is the requirement for greater sustainability. According to Dr. Meltzer of Brookings: "Companies are responding to customer expectations and demands about how they source and label supply chains, which very much affects global trade. To sell into some markets, like the US and Europe, companies have to show that certain sustainability criteria

are met. Making sure supply chains are sustainable will increasingly be a trend." We expect more multilateral efforts to counter global warming. At the same time, there will be significant innovation in fuel efficiency, renewable energy and energy storage.

Airbus⁵, for example, has unveiled plans for a sustainable, transparent plane. Its aim will be to mimic a bird's skeleton to reduce emissions, noise and fuel consumption. Inflight entertainment systems will even be powered by body heat. Toyota, meanwhile, has said that by 2050 gas-electric hybrids, plug-in hybrids, fuel-cell cars and electric vehicles will account for the majority of its global vehicle sales, up from 14% today. As Senior Managing Officer Kiyotaka Ise told the *Wall Street Journal*: "The world is turning upside down and Toyota has to change its ways."

All of this leads to an explosion in information. According to IDC, by 2020 there will be roughly 44 zettabytes of data⁶ – for perspective, that is the equivalent of 11 trillion DVDs.⁷ As Dr. Meltzer notes, "There will be five billion people online by the end of this decade, and this growth is coming from the developing world. This is a fundamental change. The internet and the free movement of data across borders underpins growth in international trade and investment."

Big data is a buzzword of today, and for good reason: When one considers how global supply chains operate and are financed, smart data innovation has the potential to drive tremendous efficiencies and optimise every cycle, which ultimately will drive overall economic growth.

Trade reclassified

The rapid adoption of smart, connected goods is forcing traditional manufacturing companies to rethink their product portfolios to include services. For example, Rolls Royce has evolved from selling engines to providing scheduled fleet maintenance. Ingersoll Rand has moved from selling air conditioners under its Trane subsidiary to managing climate control systems for its customers, which lease rather than buy the necessary equipment—turning traditional product manufacturing into a new, ongoing revenue stream.⁸

"The trade of services is the future and the way we define world trade volumes will need to be changed as a result. If we look at at smartphones, only a percentage of the work that goes into this product is hardware. The services which are provided in terms of software updates also need to be accounted for." Stuart Tait. Historically, services have mostly been delivered locally. But the Digital Age is opening the door to a host of services that can be delivered virtually. Consider the explosion of outsourced

3 www.newsroom.cisco.com/press-release-content?articleId=1621819

4 www.www.mcclatchydc.com/news/nation-world/national/economy/article24768055.html

5 www.airbus.com/innovation/future-by-airbus/

6 www.idcdocserv.com/1678

7 www.engadget.com/2011/06/29/visualized-a-zettabyte/

8 www.oxfordeconomics.com/Media/Default/Thought%20Leadership/

The outlook for international trade, 2015–2050

functions like data processing and customer service to the emerging markets of India and the Philippines. Or the doctor in New York who can now conduct surgery in Bangalore through the use of sophisticated robotics. "This model of increasing export of services will continue to extend beyond traditionally outsourced activities into new areas like healthcare and education," says Mr. Hufbauer of the Peterson Institute.

In the mature economies, financial and business services, government services, healthcare, education, leisure and other services already account for as much as three-quarters of GDP.

Indeed, says Mr. Hufbauer, "The new model of trade is above all about the enormous growth in the global value chain – a combination of services and the backwards and forward flows of manufactured components. That's the style of trade now and in the future."

Reverse innovation and mass customisation

In the early part of last century, Ford's Model T was famously available only in black. The original Mini, popular in the 1960s, had just a few different models and three colours. The Mini of 2015, however, has myriad permutations—different body styles, engine sizes, accessory packs, and electronic add-ons.

Today's marketplace is both hyper-global and hyper-local. Customers once enamoured with imports from foreign lands are no longer satisfied with a one-product-fits-all approach. But what is affordable to a middle-class consumer in the US may not be true in China or Chile. Indeed, as Amos Winter and Vijay Govindaraian wrote in the August 2015 issue of *Harvard Business Review*: "To break into emerging markets, where consumers have very high expectations but much smaller pocketbooks, multinationals usually follow a design philosophy

that minimizes the up-front risks: They value-engineer the 'good' product, watering it down to a 'fair' one that offers 50% of the performance at 50% of the price. This rarely works."

As companies analyse growing volumes of customer information and use sophisticated marketing techniques to understand customer requirements, they are increasingly turning to reverse innovation—a concept where companies develop products and services first for emerging markets rather than the developed world. Products can then be customised as they are sold into different markets. Companies that have seen success with this approach include Unilever, Renault and Proctor & Gamble, among others.

One example of reverse innovation comes from its earliest pioneers, GE. In 2009, its battery-powered Lullaby baby warmers were created to help India's hospitals, which can have patchy electricity capacity, keep its newborns warm and prevent infant mortality (India has one of the world's highest infant mortality rates). The machine's popularity rapidly spread beyond its intended market - today it is available in more than 80 countries. An upgraded version that uses more energy-efficient LEDs and a Kevlar mattress was released in 2012; GE has sold more than 1,000 units in India and 3,000 around the world.

But reverse innovation may be just the start of a much larger trend. In the future, production of goods will become more localised, and trade flows will increasingly focus on the movement of data—blueprints, digitised content, software updates, and so on. The result will be a shift from mass production to mass customisation, with dramatic implications for manufacturing facilities and global trade flows, says Mr. Philp of Gambica: "We are moving away from a world of limited products launched periodically

to one where there are almost endless variants and products are constantly updated, either by a software upgrade or replacing a few components." As a result, factories of the future, "will be small and flexible rather than large and rigid, and located close to the end customer. Forensic data analysis tools will be used to identify patterns in big data, and best practices and improvements will be instantly shared across the factory network via the cloud."

Many of these local factories will produce goods to consumers' specification on demand through 3-D printing (what's also referred to as "additive manufacturing"), creating a very different supply chain. Furthermore says Mr. Philp, "Everything will be automated – machines will set themselves up and self-maintain with little human interaction, which means the low wage cost advantage disappears."

Of course, we do not expect digitisation to completely replace the economic rationale for physical trade between countries. Economies of scale will still operate, for example, such that it would still make sense to have regional production hubs where customisation would take place before distribution.

Trade movements: the role of transport and logistics

While our forecasts do indicate that growth in the volume of merchandise trade will be moderate after 2025, in part due to there being less to be gained from trade policy and business operating models having extracted the major gains from economies of scale, the shift to mass customisation and 3-D printing will continue to drive trade – although the gains certainly won't apply to all goods or happen overnight. In addition, continued advances in transport technology and infrastructure will increase capacity, opening up new trade routes

The outlook for international trade, 2015–2050

to decrease the cost of logistics. Further reductions in shipping and air-freight costs will be driven by:

- Larger container ships and the expansion of shipping lanes, for example the widening and rebuilding of the Panama and Suez canals.
- New airports, particularly in developing countries (China, for example, plans to construct 17 new runways by 2036.8).
- Improvements in energy-efficiency, with more energy efficient ships and aircraft as well as innovations in fuel.
- Further streamlining of border control processes.
 Ports and airports will continue to invest in e-border solutions that combine increased security with streamlined documentation and approval processes.

The rise of micro-multinationals

In the first wave of globalisation and for much of the second, goods production focused largely on the natural resources available to companies in their domestic markets—and operating internationally required a physical presence in foreign markets. Mr. Hufbauer of the Peterson Institute of Economics explains: "In earlier waves of globalisation it was all about countries and their comparative advantage, perhaps in forests or through efficiencies in factory production. But now we are entering an age of global firms battling other global firms in increasingly narrow specialisms to gain their share of lucrative markets."

In this age of digital disruption and tightly connected global networks, small and mid-size companies have an opportunity to level the competitive playing field against larger firms. "It's the democratisation of the global economy through the capacity of SMEs to get online in developing countries," says Dr. Meltzer of the Brookings Institute. "There are opportunities for new players that have been marginalised to date."

According to a 2013 study of 2,100 SMEs across 21 countries conducted by Oxford Economics and SAP, "the roster of SMEs generating more than 40% of revenue outside their home country will have increased by 66%" by 2016. And more than half of respondents said they would drive global innovation and growth by participating in online business networks and platforms.⁹

Mr. Tait of HSBC agrees that such online business networks will flourish in the years ahead. "In the future there will be a clear opportunity for smaller companies to join global networks. Businesses will be part of a global connection of agile, specialist micro-multinationals working together to produce goods."

Dr. Meltzer of the Brookings Institute agrees: "Digital platforms are overcoming many costs which previously held SMEs back from trading small goods internationally. Even cross-border costs are being reduced." As one example, a 2013 study by online commerce platform eBay¹⁰ revealed that 95% of SMEs on the eBay network engage in exporting, reaching between 30 and 40 international markets. Furthermore, the report notes, "60%-80% of the new businesses analysed 'survive' their first year. The respective figure for traditional exporters is only around 30%-50%."

Trade liberalisation: step by step

As Mr. Melendez-Ortiz of the International Centre for Trade & Sustainable Development (ICTSD) notes, "We now live in a world which is fairly hard-wired through trade, investment and economic integration agreements. Over 160 countries, all the major economies in the world now observe multilateral trade rules, and use the trading system to conduct their trade relations. This system provides the foundation for market access and a minimum of disciplines. It is insufficient, but a has now been increasingly complemented by further integration of countries in bilateral/regional and international investment agreements."

We predict a further expansion of the global economy as the pace of trade liberalisation continues. The failure of the WTO's Doha Round to deliver meaningful liberalisation early in this century has led to a refocusing of activity on bilateral, regional and industry level agreements. This should lead to significant expansion of the global economy and open up attractive new markets to businesses.

Key factors in this growth include:

- The expansion of the European Union, despite its immediate challenges.
- Existing free trade areas will continue their policies to extend free trade internally, by reducing barriers to trade (e.g., the implementation of the Digital Single Market in the EU).
- In addition to TPP, further mega-regional trade agreements will be eventually concluded (e.g., RCEP in Asia, TTIP across the Atlantic or perhaps combinations of among these mega-regionals).
- Continuing harmonisation of standards and regulations to reduce many of the less visible barriers to trade.
- The WTO will remain relevant with further plurilateral agreements by sector or by issue (e.g., electronics or binding rules on sanitary or phytosanitary issues).

⁹ www.oxfordeconomics.com/Media/Default/Thought%20Leadership/

¹⁰ www.ebaymainstreet.com/sites/default/files/eBay_Commerce-3-for-Development.pdf

The outlook for international trade, 2015–2050

- Increased openness in markets for government procurement.
- Expanded liberalisation in service sectors in regional accords and potentially via the WTO.
- A generally stable political environment will lead to the lifting of sanctions and barriers to trade (e.g., in Iran and the Ukraine, as in Cuba already).
- Trade growth will also benefit from a stable currency environment.
- Digital trade and e-commerce will be liberalised and subject to more consistent roles internationally.

But there are challenges ahead, warns Dr. Meltzer of the Brookings Institute. "As the world becomes increasingly integrated economically, the demand for rules that are consistent with business reality will continue to grow. But some countries will want to go further and faster than others, and this dynamic will play out for quite a while."

Indeed, as companies grow increasingly data-driven, new challenges arise for policymakers because nations have very different approaches to how they treat data. As Dr. Meltzer notes: "In an Internet of Things world, a lot of the data you collect is personal. The capacity to maximise those opportunities may be at odds with how people want to regulate from a privacy perspective." As a result, some countries are introducing data localisation laws that prohibit countries from sharing personal data across borders. Addressing these challenges will be critical to support further global trade growth. Policymakers will also need to address new environmental and social values.

Our interviewees predict a consolidation of existing regional trade agreements and further liberalisation outside the WTO between major markets. They also forecast the rise of "mega-regionals." These reflect the reality of global value chains and covering the key hubs in the value chain world, particularly in response to the growing importance of services. As Mr. Melendez-Ortiz of the ICTSD notes, "By 2020 we are likely to have in place the new rules and terms of organisation of trade and investment that should allow countries to go back to the multilateral trading system. We're also likely to see more and more plurilateral agreements within the multilateral system – it will become a club of clubs. A regime complex, supported and served by the WTO."

We cannot predict when periods of instability will occur, although we know they do arise. Our forecasts therefore focus on the long-term trend growth in global trade, with acknowledgement that there will inevitably be temporary interruptions along the way.

Globalisation hurdles

While the continued globalisation of trade brings much promise, it also poses major challenges to businesses, governments and individuals. In the next 35 years the potential risks to the global system that could negatively impact trade include:

- National security risk
- Terrorism
- Cyber security
- Pandemics
- Geopolitical uncertainty and instability
- Economic crises, recession or even periods of low growth – e.g. what happens to China and growth in developing economies.
- Regulatory requirements on local economies and industries
- Countries returning to protectionism
- Climate change
- Political reaction against the perceived negative impacts of globalisation (e.g. growing inequality).

Tomorrow's trading landscape

The centre of gravity of global trade is expected to continue its shift to the east as trade growth within Asia increases. Many of these economies should benefit from continued cost competitiveness, favourable demographic trends (a young and growing work force, for example), and the increase of average incomes towards levels seen in the advanced economies.

The outlook for international trade, 2015–2050

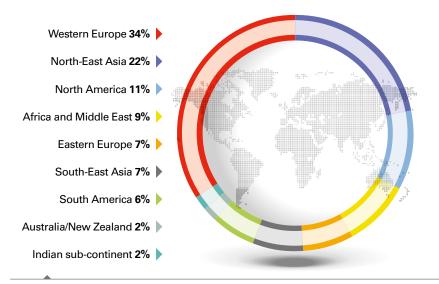


Figure 13. Regional share of world trade in 2015

Source: Oxford Economics

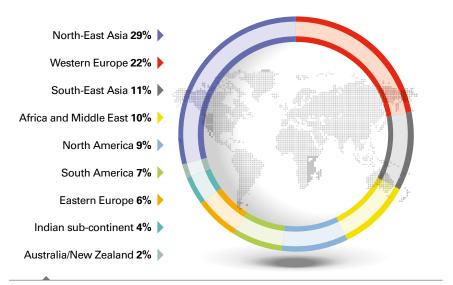


Figure 14. Regional share of world trade in 2050

Source: Oxford Economics

	20	15	2050		
	Exports to other regions	Intra-regional exports	Exports to other regions	Intra-regional exports	
Western Europe	15	19	11	11	
Eastern Europe	5	2	4	2	
Africa & Middle East	7	1	8	2	
North America	8	4	7	3	
South America	5	1	6	2	
Asia-Pacific	16	17	19	27	

Share of global trade (%)

Source: Oxford Economics

As shown in the table below, Asia-Pacific's share of global exports is forecast to rise from around a third in 2015 to 46% in 2050. Western Europe's share is expected to decline from 34% to 22%, and North America's to fall from 11% to 9%.

Trade between the economies of Asia is projected to be especially dynamic in coming decades, growing from 17% of total global exports to 27% between 2015 and 2050. In the same period, the share of global exports accounted for by intra-regional trade in Europe is forecast to drop from 19% to 11% as economic growth in the region decelerates under the weight of aging populations. The share of European trade with other countries will fall less abruptly, however, reflecting stronger demand growth outside the region.

China should extend its lead as the world's leading exporter, with its growing influence in Asia further extended by projects such as the 'One Belt, One Road' initiative and the Asian Infrastructure Development Bank (AIIB), which aim to support trade growth by funding a range of infrastructure investments in the region. But India also has the potential for strong growth, and is projected to outpace China. We expect growth in merchandise exports from India to average 6% a year in 2025-50, compared with just under 5% a year for China.

China, India and other developing countries will seek to maintain their growth, moving towards the production of higher-value products and away from an over-reliance on exports. This will require significant investment, however, particularly to get more people and businesses online. Widespread internet penetration (i.e. countries with more than 50% of the population

The outlook for international trade, 2015–2050

Top trading nations - 2015 (US\$ billions) Top trading nations - 2050 (US\$ billions)

Rank	Country	Exports	Rank Country	Exports
1	China	1,936.8	1 China	11,752.5
2	United States	1,522.1	2 United States	4,783.8
3	Germany	1,502.9	3 Germany	3,783.6
4	Japan	825.2	4 South Korea	3,652.1
5	France	658.5	5 India	2,244.1
6	South Korea	608.2	6 Mexico	1,965.5
7	Netherlands	561.5	7 France	1,795.3
8	Italy	503.3	8 Japan	1,592.1
9	Canada	467.6	9 Singapore	1,559.8
10	United Kingdom	461.6	10 Vietnam	1,437.6

2010 prices and exchange rates

Source: Oxford Economics

connected) in 2015 is still mostly limited to mature economies with relatively high per capita incomes. In 2014 only 18% of the Indian population and 50% of the Chinese population had an internet connection¹¹. By 2025, we expect to see a huge increase in internet users in the developing world, particularly in fast-growing urban areas.

Developing economies can benefit from investing in the latest infrastructure and innovative technologies, "leapfrogging" outdated infrastructure and ways of working that can hold mature economies back. We see evidence of this trend with the emergence of innovative Asian firms like Alibaba, Xiaomi, Lenovo, Baidu, Tata and Infosys in high-tech and high-value markets. China is now spending \$200 billion a year on R&D, up fourfold in a decade and now exceeding R&D spending in the EU as a percentage of GDP.

Africa is projected to begin to close its income gap with the global economy as it benefits from increasing levels of inward investment and trade links between China and African countries. However Africa is likely to largely remain a supplier of raw materials to Asia, as structural impediments hinder the continent's industrialisation: We expect over half of Africa's exports will still be primary products in 2050, albeit down from 64% in 2015.

Mature economies, faced with higher costs, will seek to exploit digital technologies to move increasingly towards higher-value-added manufacturing to meet the global consumers' need for higher-quality and more personalised products, yet will face competition from developing economies. But the economies of North America and Western Europe will struggle to

expand their merchandise exports by 2% a year between 2025 and 2050. Key to their success will be providing the supportive business environment that will help new businesses start up and scale, and established businesses to invest and adapt to the changing business environment. They will need to upgrade their infrastructure, invest in R&D and ensure a supply of the skills, for example software engineering, that will be needed across industries. They will also need to overcome potential resistance from those with vested interests to protect.

Although economic growth in in the mature markets will decelerate, the growth will still be significant—for example, the Eurozone economy may only grow by just over 1% a year during 2020-50, but this will still result in an economy that is 40% larger by 2050.

Conclusion

Though there may be fluctuations along the way, we can be certain that, largely thanks to international trade, the world economy in 2050 will be significantly larger and even more closely integrated than today. This will create many opportunities for companies large and small to serve new customers with better targeted products and services. Our interviewees have highlighted how the business environment will change in many ways. Along with increased opportunities, there also will be rapid change and the increased threat of competition. To thrive in the years ahead, companies need to consider how they can benefit from the changes being ushered in by the four trade winds.

Opportunities for businesses include:

- The rise of the collaborating specialist:
 Our analysis points to a future for specialists
 who collaborate with other best-in-class
 organisations to compete.
- Small players compete globally: Big won't always be best, or even necessary to interact internationally.
- Location less important: Where you are born or based will become less important as the world reaches greater balance and use of data enables easier access into the business world.
- Sustainability key: Understanding the future demands on the planet and what consumers want will create new businesses based on fulfilling their goals sustainably.

- Operating models based on leasing rather than purchasing: New models for revenue income will fundamentally shift how companies operate, invest for the future and grow.
- Data is king: Using data to track the world today, particularly evolving consumer demands, and use it to forecast for the future will build new intelligent systems and ways of operating.
- Building the workforce of the future:
 Recognising the shift in skills that the economy requires provides huge opportunities for businesses.

End page

Methodology

The objective of this study was to examine trade patterns over the past 150 years in order to understand the historic drivers of globalisation and to help us to discover how those drivers could shape future patterns of trade.

Historic trends

The first stage of the project involved the construction of a unique historic database of global merchandise trade flows covering the period 1865-2015, with each region of the world identified as well as key trading nations within those regions. Trade flows were also disaggregated into three broad categories of agriculture, minerals/fuels and manufactured products.

Building the database required the consolidation of data from multiple sources, with adjustments as necessary to ensure consistency, including rebasing to 2010 prices and US dollar exchange rates. Oxford Economics used its own proprietary data together with third-party sources such as the IMF, World Bank and national statistical offices to build

a complete picture of modern historical trends, while recognised academic sources such as Maddison and the Correlates of War Project were used to estimate data points stretching further back in time. Where necessary, missing historic data points were estimated using a mixture of interpolation, cross-country comparison and qualitative judgment.

The database was then analysed to identify historic patterns of trade and globalisation. In conjunction with the use of academic studies and the viewpoints of economic historians, this allowed us to identify our four "Trade Winds" and to quantify their influence on the pace and nature of globalisation over time.

Future trends

Looking to the future, we used the Oxford Global Economic Model to help us project forward global trade flows over the next 35 years. Nearterm forecasts were aligned with HSBC's own analysis and forecasts of the world economy, while longerterm forecasts were mainly driven by projected changes in the global

distribution of natural resources, capital stock (factories, machinery, equipment) and skilled labour force. In addition to these drivers of supply and demand patterns around the world, competitiveness factors (as measured by relative unit labour costs) were taken into account.

However, it is also important for these long-term projections to be informed by the changing nature of trade over time, as well as the products of the future. With this in mind, we carried out an extensive literature review on future trends, including respected external sources and Oxford Economics' own research studies. We focused in particular on the four Trade Winds and their likely impact on international trade. A number of independent experts on these issues were identified and we conducted interviews with them to explore the issues highlighted by our research in greater depth. Our findings were consolidated and crosschecked, with our conclusions used to inform our final long-term view on developments in the future propensity to trade.

Consultant Experts

Lloyd Barton,

Associate Director and Head of Global Trade, Oxford Economics

Steve Bottomley,

Global Head of Mid Market and Business Banking, HSBC

Adrian Cooper,

Chief Executive Officer, Oxford Economics

Debra D'Agostino,

Managing Director, Thought Leadership, Oxford Economics

Gary Hufbauer,

Senior Fellow, Peterson Institute for International Economics

Sarah Hunter,

Head of Americas Macro Consulting and Economic Historian Oxford Economics

Steven Le Van,

Sales & Marketing Executive, Le Toy Van

Doug Lippoldt,

Senior Trade Economist, Global Research, HSBC

Scott Livermore,

Managing Director, Macro Consulting, Oxford Economics

Ricardo Melendez-Ortiz,

Co-founder, Chief Executives, International Centre for Trade and Sustainable Development (ICTSD)

Joshua Meltzer,

Senior Fellow, Global Economy and Development, Brookings Institution

Graeme Philp,

CEO of GAMBICA (the UK Trade Association for the Automation, Instrumentation and Control and Laboratory Technology Industries)

John Reiners,

Managing Editor, Thought Leadership, EMEA, Oxford Economics

David Schockenhoff,

Economist, Oxford Economics

Stuart Tait,

Global Head of Trade and Receivables Finance, HSBC

Ben Wright,

Associate Editor, Thought Leadership, Oxford Economics For media enquires or a copy of the report please contact:

Kate Woodyatt HSBC Global Communications katewoodyatt@hsbc.com

Or click on https://globalconnections.hsbc.com

All images copyright © HSBC Holdings plc. All reasonable efforts have been made to obtain copyright permissions where required. Any omissions and errors of attribution are unintentional and will, if notified in writing to the publisher, be corrected in future printings.

Note: Whilst every effort has been made in the preparation of this report to ensure accuracy of the statistical and other content, the publishers and data suppliers cannot accept liability in respect of errors or omissions or for any losses or consequential losses arising from such errors or omissions. The information provided in this report is not intended as investment advice and investors should seek professional advice before making any investment decisions.

Compiled by Oxford Economics on behalf of HSBC Commercial Banking www.oxfordeconomics.com

Issued by HSBC Bank plc

8 Canada Square London E14 5HQ United Kingdom

www.hsbc.com