Growing Beyond

Beyond Asia
New patterns of trade

Ernst & Young
Quality In Everything We Do

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Contents

Fast facts on trade and Asia-Pacific's RGMs

- The US will remain China's most important export market, with merchandise exports rising more than three-fold to US$924 billion over the next decade.
- Hong Kong will expand its role as a trading destination and gateway to Mainland China, with exports to the mainland reaching US$529 billion by 2020.
- Indonesian exports, which will expand by 15% annually over the next decade, will benefit from India as its fastest-growing market.
- South Korean machinery and transport equipment exports will rise yearly by 12%, accounting for 43% of the country's total exports by 2020.
- Malaysian exports of machinery and transport equipment will expand by 10.6% annually, reaching US$235 billion by 2020.
- Singapore will continue to have diversified trading partners across Asia and will expand further outside the region with the US as a key market.
- For Taiwan, high-tech products will keep on driving its export growth, but the country will continue to produce intermediate goods such as chemicals and basic metals.
- Thailand will become a regional center for passenger car production.
- The US will remain Vietnam's most important trading partner, with exports growing by US$32 billion over the next decade.

In this report, we use the term "Asia-Pacific RGMs" to refer to the nine rapid-growth markets in East and Southeast Asia included in our forecasts. These markets are Mainland China, Hong Kong (Special Administrative Region [SAR] of China), Indonesia, Malaysia, Singapore, South Korea, Taiwan, Thailand and Vietnam.

Beyond Asia: new patterns of trade is part of **Growing Beyond**, our flagship program that explores how companies can grow faster by expanding into new markets, finding new ways to innovate and implementing new approaches to talent management.

Introduction

Lou Pagnutti

Rapid-growth markets (RGMs) will increasingly dominate world trade over the next 10 years, with Asia-Pacific experiencing the fastest growth in exports, particularly within the region itself.

Building on our analysis of future global trade patterns[1] and the results of our recent survey of East and Southeast Asian business executives,[2] *Beyond Asia: new patterns of trade* examines how trade in and between the nine largest or most rapidly growing economies in Asia-Pacific will affect global business.

Our previous reports indicate that Asia-Pacific's RGMs represent one of the fastest-growing economic regions. From 2010 to 2020, trade flows from Asia to North America, the Middle East, Latin America and Africa are estimated to grow 10% a year.

Asia's middle class, with its increasing incomes and purchasing power, is prompting higher consumption. Our research reveals a strong uptick in the number of households that will benefit from increased incomes. We expect RGMs to increase their share of global consumption from 14% to 25% by 2020. But what would happen if Asia's middle class expands faster than expected; how would this impact domestic demand and intra-regional trade?

Companies wanting to move up the global value chain are increasing exports, a trend that is rebalancing growth among countries in the area. However, if China outpaces others too rapidly in its ascent up the value chain, what would be the consequences for intra-regional trade? In this report we explore these questions and present a baseline forecast for patterns of trade in Asia by 2020, as well as two alternative scenarios, to help you as your strategic growth plans take shape.

Lou Pagnutti
Asia-Pacific Area Managing Partner
Ernst & Young

Footnotes

1. Presented in Ernst & Young's *Trading places: the emergence of new patterns of international trade*
2. *Beyond Asia: strategies to support the quest for growth*

Executive summary

The next 10 years

Asia has become the world's workshop over the last decade. Over the next 10 years, Asia will also become the world's fastest-growing consumer market. Rising incomes will propel millions of Asians into the middle class, affecting not only intra-regional trades of RGMs but also global trade as well.

RGMs in Asia-Pacific are well positioned to benefit from expected trade growth in the region. Through vertical specialization, the contributions of these economies are increasingly complementary, enabling every country in the region to thrive.[3]

For most Asia-Pacific economies, trade with the Middle East and North Africa (MENA) will grow faster than trade to the Eurozone. Meanwhile, India will be the fastest-growing trade route for almost every economy in the region. Overall, the US will remain the single largest growth opportunity for Asia-Pacific RGMs. Our recent research found that more than half of Asian companies that conduct a significant amount of business outside of Asia are operating in the US.

Future trade patterns differ from sector to sector. For example, with the rise in per capita income, markets for many consumer goods are taking off. The boom in demand for consumer durables means that consumer product companies will need to further differentiate their offerings to remain competitive.

Machinery and transport will dominate goods trade, with information and communications technology (ICT) equipment accounting for most of the growth. The shipbuilding industry will expand rapidly, benefiting countries such as South Korea. By contrast, exports of manufactured goods from Indonesia and Vietnam will be driven primarily by lower value-added products, including clothes and shoes.

Over the coming decade, trade in services exports is also set to increase sharply, with financial services showing particular dynamism. While the most vibrant financial centers in the region — Hong Kong and Singapore — are likely to strengthen and consolidate their positions, emerging centers in Shanghai, Beijing and Seoul are also expected to grow rapidly.

Executive section key

Sections

Demand for products and services tailored to Asian consumers

Information and communication technology and services to drive intra-regional trade

Significant growth potential in inter-regional trade

Alternative scenarios for rapid-growth markets

Footnotes

3. Ernst & Young's *Trading places: the emergence of new patterns of international trade,* discusses vertical specialization, whereby production has become much more internationalized, with countries specializing in different stages of production.

The promise and peril of growth

While there are clearly winners in the expansion of RGMs, potential outcomes can have unintended consequences. Thus, in addition to our baseline forecasts, we have explored two potential alternative growth scenarios to further help you with your business' growth planning.

The first looks at a faster-than-expected expansion of Asia's middle class, which would drive an increase in consumer spending, producing a virtual circle of growth. The higher demand for products would trigger higher levels of inter-regional trade, stimulating export growth. This would lead to increased investment in productive capacity, sparking the creation of more jobs. More jobs would attract the rural population to cities, swelling the ranks of the middle class.

The second, a move up the value chain too quickly by one country over the others in the region, could reduce intra-regional trade, a key driver of overall regional trade. For example, if China were to produce more high-technology products, its demand for parts and components from other Asian countries would decrease. The economies of East and Southeast Asia would be negatively affected in terms of exports. On the other hand, the economies relatively unaffected by this scenario — those prospering from the void in production left by China — would be RGMs with strengths in other manufacturing segments.

Key questions for companies to consider

- Is your business positioned to take advantage of growing demand in the Asia-Pacific region?
- Do you know when your goods or services will reach their respective growth "takeoff points" in Asia-Pacific RGMs?
- Does your regional strategy consider the likely increase in competitive pressures in Asia-Pacific — for both resources and customers?
- Do you have the right plans to serve customers in megacities?
- Is your organization equipped to forecast and solve complex policy, regulatory and competitive issues?

- Are you improving your supply chain for the trade patterns of the next decade?
- Can you capitalize on the future rise of Asia-Pacific as a hub of business trade?
- Can customs, warehousing and distribution restrictions affect the viability of your cross-border growth strategy?
- Is your company aware of the costs and implications of transactions, including the ability to make effective use of free trade agreements?

- Do you know which Asia-Pacific countries will be the most competitive export platforms for your products over the next decade?
- Is your business positioned to take advantage of expansion opportunities outside the Asia-Pacific region?
- Is your risk management framework robust enough to support international expansion?
- Is your finance function ready to deal with cross-border expansion?
- Do you have the right talent management strategy to build a sustainable cross-border business?
- Have you identified your market entry method (e.g., acquisition, organic growth, franchising)?

- Does your business have an early-warning system that alerts you to potential economic policy shifts?
- Are your global strategies and supply chain flexible enough to respond quickly to new opportunities and challenges created by alternative trade scenarios?
- Does your organization have the right relationships with local regulators and government officials?
- Does your business have the ability to transfer capabilities, brand and intellectual property acquired back to Asian markets?

Demand for products and services tailored to Asian consumers

The rise of the middle class in Asia rapid growth markets will result in a growing demand for Asia-tailored products. In this section, we analyze the impact this will have on regional and global trade.

Asia's purchasing power is thriving

Over the next decade the expansion of Asia-Pacific's RGMs will outpace that of industrialized countries, shifting economic influence toward the East. GDP in Asia Pacific's RGMs is expected to grow 6.4% a year between 2011 and 2020, compared with 2.5% in the US and just 1.3% in the Eurozone (Figure 1).

This rapid increase in wealth could trigger a circle of self-sustaining growth, reflecting a combination of favorable demographic trends and strong contrast with productivity in high-income countries. Unlike many developed countries, RGMs can expand unhampered by high levels of public debt and large budget deficits (Figure 2).

The number of households enjoying higher incomes will grow sharply. Forecasts indicate that 61 million homes will have annual incomes above US$30,000 in 2020, compared with only 15 million in 2010 (Figure 3)[4]. Only 15% of the population will earn less than US$5,000 a year, although 42% do so now.

As urbanization increases, consumers will be easier to reach as well. According to the 2011 United Nations world urbanization report, while only 36% of the Chinese population lived in urban areas in 2000, the statistic had risen to 49% by 2010. While the pace of urban population growth is undoubtedly slowing, the UN predicts that city dwellers will account for 61% of China's total population by 2020.

Sector definitions

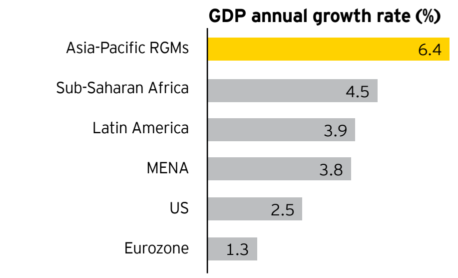
Our sector model of bilateral trade categorizes business activities according to the Standard International Trade Classification (SITC) methodology. The table below provides a guide to the breakdown of subsectors under each heading.

Sector heading	Subsectors breakdown	
Machinery and transport	Industrial equipment Aerospace and defense Transport equipment (excl. cars)	Household electrical appliances ICT equipment
Other manufacturers	Textiles Lumber and wood Printing and packaging	Rubber and plastics Medical and pharmaceutical Other durable goods
Passenger cars	Automotive manufacturing	
Metals	Primary and fabricated metals	
Chemicals	Chemical manufacturing	
Oil and gas	Oil and gas operations	
Crude fuels	Mining operations	
Food and beverages	Food and beverages Crops, livestock, fishing	
Services	Tourism Transport Business and finance	Communications Other services

Footnotes

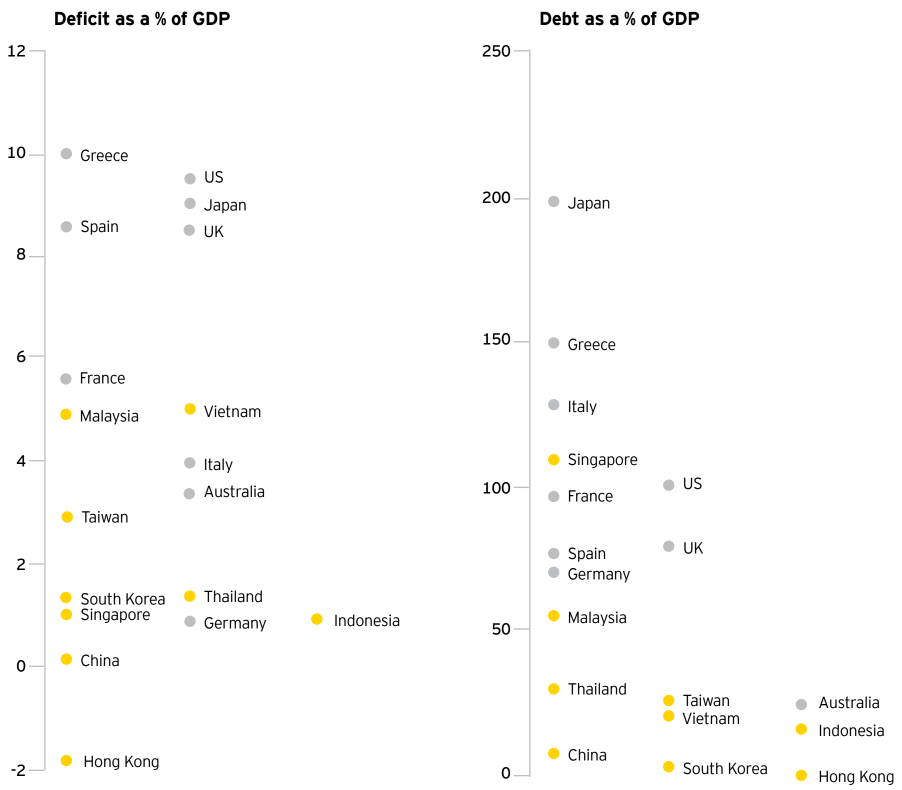
4. The outlook for the middle class in Asia-Pacific's RGMs was also discussed in the Summer 2012 edition of Ernst & Young's *Rapid Growth Markets Forecast*.

Figure 1: Economic growth prospects



Source: Oxford Economics
Note: Based on US dollar value in 2005

Figure 2: Budget deficits and government debt (2011)

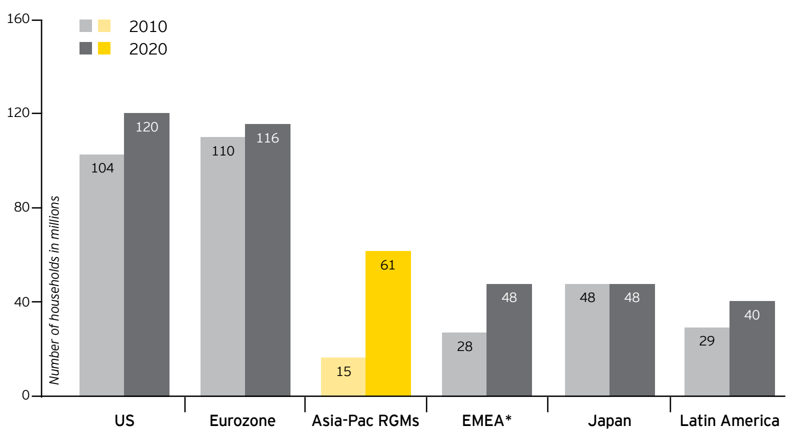


Source: Oxford Economics

Highlights

- Over the last 10 years Asia has become the world's workshop. Over the next 10 it will also become the world's fastest-growing consumer market, as rising incomes propel millions of Asians into the middle class.
- Consumer spending will grow faster in Asia rapid-growth markets than in advanced economies. Our forecasts suggest that Asia-Pacific RGMs will see their share of global consumption rise from under 14% in 2010 to almost 25% by 2020.
- In RGMs, markets for many consumer goods are reaching "takeoff points," where rising per capita income generates a more than proportionate increase in market size. Demand for consumer durables is set to boom.
- The tastes and preferences of Asian consumers will increasingly determine the rules of the global marketplace.

Figure 3: Households with income above US$30,000



Source: Oxford Economics *Europe, Middle East and Africa

> "Singapore has an active sovereign wealth fund and significant excess capital. It has become a secondary financial services hub for Asia, after Hong Kong. And yet it's a country of only about 5 or 6 million people."

Howard Roth, Global Real Estate Leader, Ernst & Young

In Southeast Asia, the urban population rose from 38% of the total population in 2000 to 44% in 2010 and will rise to 50% by 2020 (Figure 4). Moreover, the urbanization trend in Asia is likely to continue to be focused around the region's megacities (defined as those with populations in excess of 10 million). These vast urban centers will become increasingly significant drivers of global consumption.

Just as striking as the growth of the middle class is the increase in its purchasing power. For some time, households in Asia-Pacific RGMs have had high saving rates, while the middle class has tended to spend a larger percentage of their income.

Asia-Pacific's RGMs are forecast to increase their share of global consumption from under 14% in 2010 to almost 25% by 2020 (Figure 5). Nominal consumption will increase by US$10.6 trillion, slightly more than the US$10.4 trillion rise forecast for advanced economies.

Greater need for product differentiation

The increase in purchasing power will affect the way cross-border business is done. In targeting the needs of Asian consumers, companies wishing to introduce or increase recognition of their brand will have to differentiate their products.

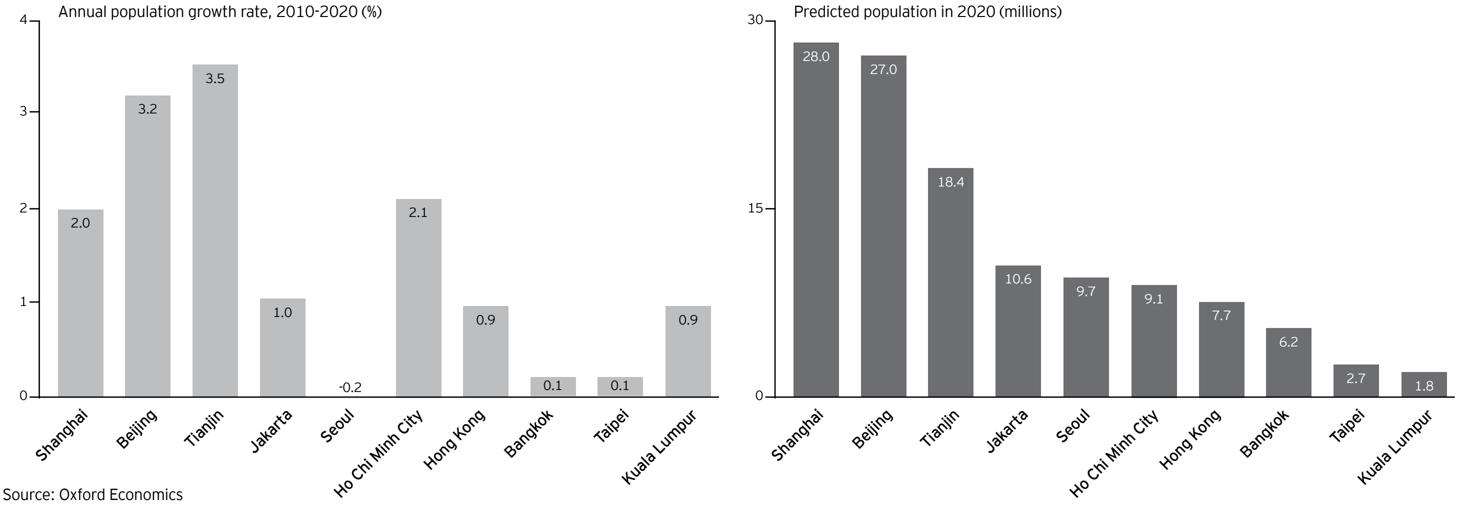
When a country's per capita income "takes off," each additional percentage-point increase generates more than a 1% increase in market size. This trend generally continues until market saturation occurs, at much higher income levels. The shift from savings to consumption is already under way, as seen in the rapid growth in demand for products such as mobile phones, for example (Figure 6).

Different goods have different takeoff points. Between 2005 and 2009, for example, refrigerator sales in China grew by an average of 25% annually. Analysis suggests that the takeoff point for this demand occurred at incomes of US$5,000-$10,000.

Ultimately, middle-class willingness to pay more for higher-quality goods encourages product differentiation, driving investment in production and marketing. Hence, the tastes and preferences of Asian consumers will increasingly determine the rules of this new global marketplace.

As highlighted in our report *Beyond Asia: strategies to support the quest for growth*, companies need to tailor their product strategies to different markets in the region. Koh Boon Hwee, Chairman of Yeo Hiap Seng, a Singaporean food and beverage company, says that people respond to his company's products differently in different locations across Asia. To respond to customer preferences, his company has to modify the formulation for each country.

Figure 4: Population growth in major Southeast Asian cities

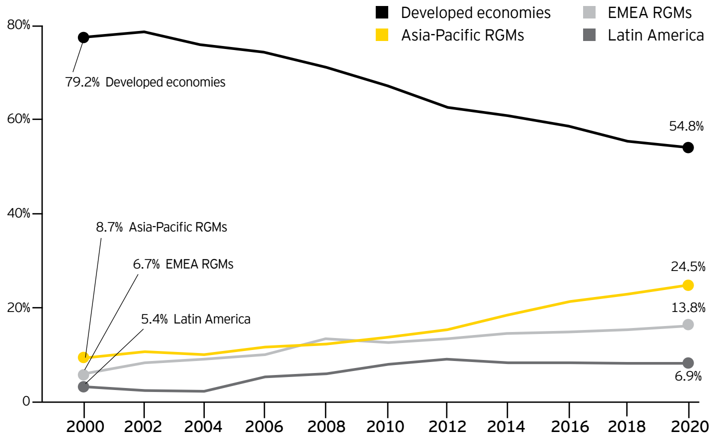


Source: Oxford Economics

Key questions for companies to consider

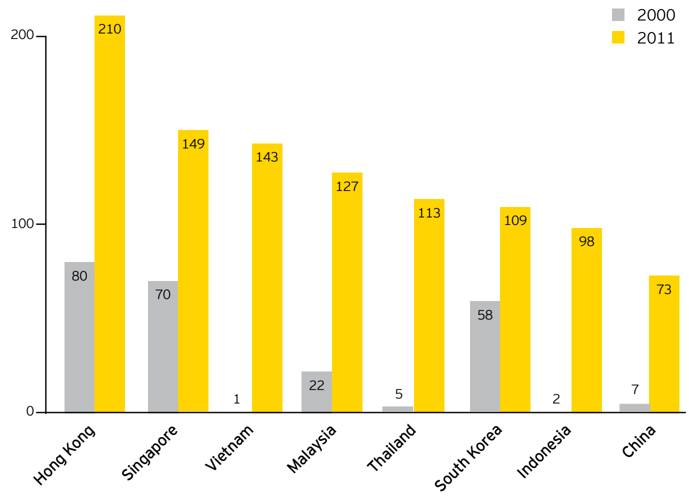
- Is your business positioned to take advantage of growing demand in the Asia-Pacific region?
- Do you know when your goods or services will reach their respective growth takeoff points in Asia-Pacific RGMs?
- Does your regional strategy consider the likely increase in competitive pressures in Asia-Pacific – for both resources and customers?
- Do you have the right plans to serve customers in Asian megacities?
- Is your organization equipped to forecast and solve complex policy, regulatory and competitive issues in Asia?

Figure 5: Regional share of global consumption (US$)



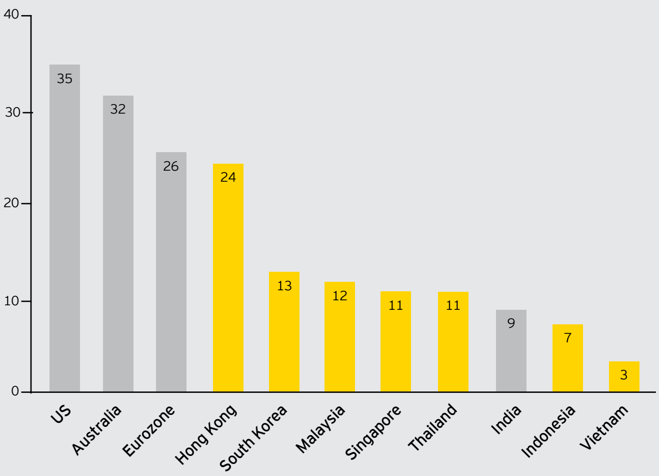
Source: Oxford Economics

Figure 6: Mobile phone subscriptions per 100 people



Source: World Bank

Figure 7: Number of bank branches per 100,000 adults



Source: World Bank (2009, 2010)

Demand for financial services

The expanding middle class will create demand for a wide variety of financial services. As incomes grow, so too will the demand for sophisticated services such as investment advice, pensions and personal insurance. For example, 21.8 million people in China had credit cards in 1997; this number rose to 285 million by 2011.

Further, as financial services tend to have higher income elasticity than, say, agricultural and manufactured products, sectors such as wholesale and retail trade, real estate, education, health care and social security are all likely to benefit.

In general, the financial industry remains underdeveloped in many of Asia-Pacific's RGMs (Figure 7). Therefore, the demand for financial services in Asia-Pacific is likely to rise faster than in high-income countries.

Significant growth potential in intra-regional trade

Asia-Pacific RGMs will continue to play a key role in global trade. In this section we look at trade route potentials and relative growth rates for the next 10 years outside of the region.

Bilateral free-trade agreements make for stronger economies

Bilateral free-trade agreements (FTAs) will help to lower trade barriers. Figure 8 summarizes the number of FTAs concluded by each country. Stronger economies tend to have more cross-regional FTAs. The trend toward cross-regional agreements has become even stronger recently, indicating that Asia-Pacific continues its outward trade trend.

Although trade agreements may indicate the export strategies of Asia's leaders, our economic heat map (Table 1) shows that leading exporters in the region (China, Thailand, South Korea) are becoming importers. A virtual cycle of inter-regional trade is created as Asia-Pacific RGMs — from low-cost Vietnam to highly skilled South Korea — bring complementary capabilities and products. However, the main driver of intra-regional trade in Asia will be China, both as exporter to other economies in the region and as the fastest-growing source of demand for exports from those economies.

Expanding trade routes

Exports from many of Asia's less developed economies will expand rapidly over the next decade. Trade routes from Indonesia to China, Thailand and South Korea are set to grow at annual rates in excess of 13%.

Vietnam's exports will take off as it lures makers of shoes, clothes and computer chips with tax breaks, inexpensive land and lower labor costs. The country's exports to China, South Korea and Thailand are forecast to grow at annual rates of more than 15%.

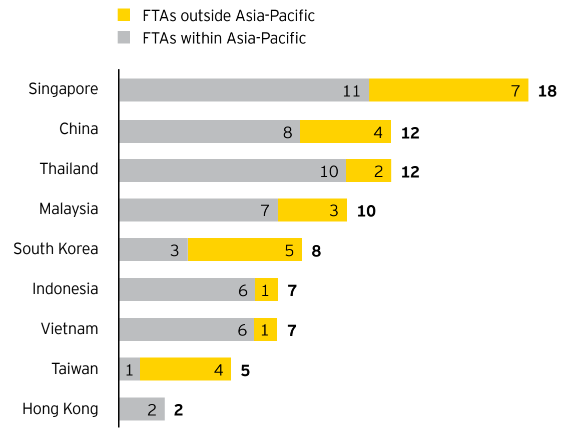
The more mature economies of Taiwan, Singapore, Hong Kong and Malaysia are expected to experience relatively lower growth rates for exports, compared with China and Vietnam.

In absolute dollar values, trade between China and Hong Kong will experience the largest increase, with a forecast US$512b rise (Table 2).

Highlights

- The capabilities of Asia-Pacific economies will become increasingly complementary, enabling every country to thrive.
- For most Asia-Pacific economies, trade with Africa and the Middle East will grow faster in the next 10 years than trade to the Eurozone.
- India is expected to be the fastest-growing trade route for almost every economy in the region.
- The US will remain the single largest growth opportunity for Asia-Pacific's RGMs.

Figure 8: Concluded free-trade agreements among Asia-Pacific countries



Source: Asian Development Bank

Table 1: Intra-regional growth in merchandise exports

Annual growth rate (%)

Growth greater than 15% · Growth greater than 12% · Growth greater than world average of 8.7% · Less than 8.7%

Flows from:	China	Hong Kong	Indonesia	Malaysia	Singapore	South Korea	Taiwan	Thailand	Vietnam	World
China	n/a	12.9	15.2	12.1	11.7	16.2	12.7	15.2	13.0	12.5
Hong Kong	9.7	n/a	7.2	5.6	4.8	8.5	4.3	8.4	6.2	7.9
Indonesia	14.8	10.1	n/a	10.9	9.0	13.4	11.2	13.3	10.3	10.9
Malaysia	13.1	8.5	10.7	n/a	7.4	11.8	7.7	12.0	8.7	9.1
Singapore	10.9	6.4	8.5	7.1	n/a	9.5	6.2	9.3	6.5	7.2
South Korea	14.5	9.9	12.1	10.6	8.7	n/a	10.0	13.0	10.0	11.2
Taiwan	10.4	5.4	7.8	6.3	5.4	9.2	n/a	9.1	6.8	7.4
Thailand	15.3	10.6	12.8	11.3	9.4	13.9	10.2	n/a	10.7	10.5
Vietnam	17.4	12.5	14.8	13.2	11.3	15.8	11.7	15.7	n/a	12.8

Source: Oxford Economics

Table 2: Intra-regional flows of merchandise exports

Total increase in US$b

Increase greater than US$100b · Increase between US$26b and US$100b · Increase between US$10b and US$25b · Increase below US $10b

Flows from:	China	Hong Kong	Indonesia	Malaysia	Singapore	South Korea	Taiwan	Thailand	Vietnam
China	n/a	512.4	68.1	61.4	65.2	240.4	82.9	61.4	55.4
Hong Kong	319.0	n/a	2.8	2.4	4.3	9.6	0.9	6.1	3.6
Indonesia	46.6	4.1	n/a	16.9	18.7	31.8	11.4	11.4	3.2
Malaysia	60.8	12.8	10.0	n/a	27.6	15.4	9.1	22.4	4.6
Singapore	65.5	35.2	42.0	41.2	n/a	21.4	6.2	18.2	6.5
South Korea	335.8	39.5	18.9	10.8	19.9	n/a	25.6	15.5	15.4
Taiwan	129.5	26.1	3.3	5.0	8.4	15.0	n/a	9.5	6.5
Thailand	67.3	22.8	17.3	20.3	13.2	9.6	5.3	n/a	10.4
Vietnam	27.8	4.0	3.1	4.5	2.8	7.1	2.6	4.4	n/a

Source: Oxford Economics

It is important to recognize, however, that Hong Kong is an entrepôt economy, intermediating substantial trade between Asia and the rest of the world. For Hong Kong, re-exports accounted for 59% of total exports in 2011. Although this involves little manufacturing, Hong Kong still earns substantial income from markups on its re-exports of Asian goods.

South Korea is set to further strengthen its position in the region over the coming decade as well. This is impressive given its relatively high level of income and wages. The country has a competitive advantage in high-technology products with established international brand names and open trade policies.

The country is well placed to serve the expanding market for consumer goods in Asia, which will help drive rapid export growth to markets in the region. South Korea is a fast-expanding destination for goods from other countries in the region, with exports from China, Vietnam, Thailand, Indonesia and Malaysia all forecast to grow at rates in excess of 10% annually.

China will remain an exceptionally strong performer in the context of world trade, even with projected growth rates significantly lower than for Asia's intra-regional trade (Table 3). China's trade growth will reach double-digit figures in many markets, especially in trade among emerging economies.

The US: still a key player

Trade routes to the US represent the single most significant expansion opportunity for most of the region's exporters, after China. Our research found that more than half of Asian companies that conduct a significant amount of business outside Asia are operating in the US. The US looks to become an even more import destination for several Asia-Pacific RGMs (Table 4).

While the subdued outlook in developed economies may not make these countries attractive in terms of growth rates, their sheer market size means they still represent lucrative business opportunities for Asia- Pacific exporters.

Table 3: Extra-regional growth in merchandise exports

Annual growth rate (%)

Growth greater than 15% | Growth greater than 12% | Growth greater than world average of 9.6% | Growth below 9.6%

Flows from:	India	Japan	Australia	France	Germany	Rest of Eurozone	UK	US	Latin America & Caribbean	Africa & Middle East	World
China	18.0	11.7	10.7	9.9	11.0	9.8	9.7	12.5	12.0	12.7	12.5
Hong Kong	10.5	3.7	2.7	3.2	5.0	3.0	3.3	6.3	7.9	4.9	7.9
Indonesia	15.3	9.0	8.0	7.2	8.3	7.2	6.7	9.8	9.6	10.9	10.9
Malaysia	13.4	7.4	6.4	6.2	7.8	5.0	6.5	9.2	8.1	9.0	9.1
Singapore	11.2	5.2	4.3	5.7	7.4	4.6	5.8	8.8	6.6	6.8	7.2
South Korea	14.8	8.7	7.7	7.0	8.0	7.2	6.4	9.5	9.0	10.1	11.2
Taiwan	11.2	4.4	3.4	3.8	5.6	3.6	3.9	6.0	7.2	9.0	7.4
Thailand	15.6	9.4	8.5	7.7	8.7	7.5	7.2	10.3	9.7	10.9	10.5
Vietnam	17.6	11.3	10.3	9.9	10.7	9.5	9.7	12.3	11.7	10.5	12.8

Source: Oxford Economics

> "Product perception in the primary markets is driving demand in the secondary markets. It is critical for Asian firms to have strong brand within the US and the EU to remain competitive within Asian markets."

Channing Flynn, Global Technology Tax Leader, Ernst & Young

Trade flows from China to the US will expand more than any other bilateral trade route in terms of absolute value (Table 4).

Though it may appear to be a distant and saturated market, the US still holds significant opportunities for Asia-Pacific exporters willing to make the journey. The country is expected to remain the world's largest consumer market in 2020, with US$16.4 trillion in forecast spending – almost twice the US$8.8 trillion of spending in China.

Asia-Pacific exports to India, Africa and the Middle East

For most Asia-Pacific economies, the projected increase in trade flows to MENA over the coming decade will be greater in value than the increase in trade to the Eurozone. In addition, established trade routes between Asia-Pacific and Japan will continue expanding.

The survey highlights the growing attractiveness of MENA.[5] Respondents noted the potential for locating manufacturing and assembly in regions that are closer to key export markets in the West.

Perhaps the most striking findings are the growth rates for Asia-Pacific exports to India. Over the next decade, trade with India is likely to be a key opportunity for nearly every country in the region.

Footnotes

5. The outlook for the middle class in Asia-Pacific's RGMs was also discussed in the Summer 2012 edition of Ernst & Young's *Rapid Growth Markets Forecast*.

Key questions for companies to consider

- Do you know which Asia-Pacific countries will be the most competitive export platforms for your products over the next decade?
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- Is your finance function ready to deal with cross-border expansion?
- Do you have the right talent management strategy to build a sustainable cross-border business?
- Have you identified your market entry method (e.g., acquisition, organic growth, franchising)?

Table 4: Extra-regional flows of merchandise exports

Total increase in US$b

Increase greater than US$100b | Increase between US$26b and US$100b | Increase between US$10b and US$25b | Increase less than US$10b

Flows from:	India	Japan	Australia	France	Germany	Rest of Eurozone	UK	US	Latin America & Caribbean	Africa & Middle East
China	172.7	243.6	47.9	43.7	124.5	187.9	58.8	639.9	178.8	268.1
Hong Kong	16.9	7.2	1.5	1.7	6.5	4.7	3.8	36.2	6.2	5.0
Indonesia	30.7	35.1	4.9	1.2	3.6	9.2	1.6	22.2	4.7	14.6
Malaysia	16.5	21.4	6.5	1.8	6.0	5.8	2.0	26.8	4.1	15.5
Singapore	25.1	10.9	6.6	4.5	6.4	6.0	4.6	30.4	10.6	12.4
South Korea	34.2	36.8	7.4	2.9	12.3	22.6	4.8	74.4	44.3	55.9
Taiwan	6.5	9.6	1.2	1.0	5.0	5.4	2.3	24.8	3.7	27.8
Thailand	14.3	29.8	11.7	2.0	4.3	8.5	3.6	33.5	7.9	27.6
Vietnam	2.1	14.3	5.0	1.7	5.1	5.8	2.2	31.9	3.2	5.5

Information and communication technology and services to drive intra-regional trade

The rising demand for products and services tailored to Asian consumers will have a diverse impact on intra-regional trade and market sectors. Every rapid-growth market has its own unique characteristics that create market sector specialization. This section illustrates and highlights those markets' key success factors.

Highlights

- Goods trade will predominantly be in machinery and transport equipment. Information and communication technology (ICT) equipment will account for most of the growth, although South Korea's shipbuilding industry will also expand rapidly.
- Exports of lower value-added products, including clothes and shoes, will also continue to increase.
- Service exporters will seek to satisfy fast-growing demand within Asia-Pacific.
- Regional companies will need to align and integrate a strong talent management approach with their business performance.

Machinery and transport equipment will lead the way

Businesses planning their strategy will find it useful to understand where growth in their sector will be concentrated geographically. Figure 9 illustrates the relative contributions of different industries to the increase in total exports of goods and services between 2010 and 2020.

For most economies in the region, the most significant driver of trade is machinery and transport equipment. This sector includes (ICT) and consumer electrical products, such as computers, televisions, and washing machines, as well as industrial machinery.

Analyzing the geographic regions

Vertical specialization enables the pivotal role of the machinery and transport equipment sector. It drives a division of labor among countries in the region based on relative wages and differences in skills for executing various stages of the production process. While the increase in vertical specialization and international supply chains is expected to continue, the pace is unlikely to match the surge of the past decade.[6]

Advances in production technology will support the spread of multinational production networks. These networks enable producers to split the supply chain into smaller parts, while technological advancements improve the speed and efficiency of coordinating geographically dispersed production.

Therefore multiple border crossings of parts and components will be a key driver of growth in overall trade volumes. More demand for consumer products from the expanding middle class in Southeast Asia also means that vertical specialization will have a more regional focus, as productive capacity is developed to serve these economies directly.

China clearly stands out as the fastest-growing destination for exports of machinery and transport equipment (Table 5). In part, this reflects the country's specialization in final assembly using components sourced from other Asia-Pacific economies, but it is also due to the escalation in final demand resulting from the growth in the country's middle class.

Similarly, we expect South Korea to experience a vibrant increase in component imports from other regional economies – required for its automobile, semiconductor, visual display and ICT industries.

Footnotes

6. Ernst & Young, *Trading places: the emergence of new trade patterns of international trade.* This report concluded that there are limits to the degree that production processes can be fragmented.

> "Companies in China, whether state-owned or private-owned, are under pressure to have consistent, continuing growth. So on top of doing business in the domestic market, companies are looking into other markets to achieve this revenue growth."

Joe Tsang, Asia-Pacific Technology Leader, Ernst & Young, China

Table 5: Intra-regional growth in exports of machinery and transport equipment

Annual growth rate (%)

Growth greater than 16% | Growth greater than 13% | Growth greater than world average of 10.5% | Growth less than 10.5%

Flows from:	China	Hong Kong	Indonesia	Malaysia	Singapore	South Korea	Taiwan	Thailand	Vietnam	World
China	n/a	13.2	15.1	13.1	12.3	17.2	13.0	14.3	13.1	13.0
Hong Kong	9.2	n/a	6.6	5.5	4.8	8.1	4.8	8.2	5.4	7.8
Indonesia	20.2	11.1	n/a	15.0	11.5	16.7	11.7	14.4	12.1	12.6
Malaysia	14.7	8.8	11.3	n/a	9.1	14.6	8.5	14.7	7.5	10.6
Singapore	12.4	6.8	11.8	8.5	n/a	10.0	8.4	9.4	7.7	7.9
South Korea	16.5	9.9	17.3	10.5	9.2	n/a	7.7	15.0	18.1	12.0
Taiwan	13.7	5.9	7.3	6.2	5.3	9.2	n/a	8.6	7.3	8.9
Thailand	18.2	9.5	11.3	11.3	10.3	14.5	11.3	n/a	10.9	10.8
Vietnam	17.7	12.5	15.2	15.0	11.8	17.1	11.1	16.1	n/a	13.3

Figure 9: Sector contribution to increase in exports

Greater than 40% | Between 26% and 40% | Between 10% and 25% | Less than 10%

	Merchandise								
	Food and beverages	Crude products (excluding fuels)	Oil and gas	Chemicals	Metals	Passenger cars	Machinery and transport equipment	Other manufactures	Services
China	1.9	0.3	0.7	5.8	4.2	1.2	46.7	30.8	8.0
Hong Kong	1.2	0.6	-0.1	4.1	1.9	0.3	42.9	23.8	25.0
Indonesia	6.3	23.8	11.8	5.2	5.1	2.7	12.7	19.1	12.9
Malaysia	3.8	7.0	3.8	5.5	4.2	0.5	47.1	15.2	12.4
Singapore	0.9	0.4	9.3	12.4	3.8	0.6	47.0	7.0	18.2
South Korea	0.8	0.6	5.1	8.2	7.7	6.5	45.6	14.2	10.9
Taiwan	0.6	3.5	n/a	5.9	10.3	n/a	51.5	12.9	15.0
Thailand	10.2	2.9	3.0	8.6	5.9	6.4	32.0	16.9	13.9
Vietnam	16.4	4.5	12.4	2.0	3.8	0.9	12.9	39.9	6.9

Source: Oxford Economics

Note: For Taiwan, the crude products category includes oil and gas. Passenger cars are included in machinery and transport equipment.

In our recent survey of leading Asian multinationals, *Beyond Asia: strategies to support the quest for growth*, we found that the most important strengths that businesses seek to drive their global growth include product or service quality (43%) and leading-edge technology (36%). The cost competitiveness of their workforce, although still clearly important, ranks eighth (23%).

Analyzing the subsectors

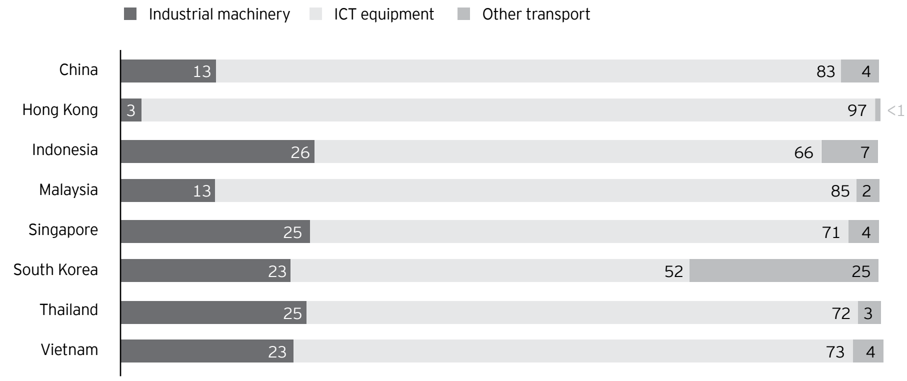
To analyze the growth drivers of the machinery and transport equipment sector, our study examined trends within the three underlying subsectors: industrial machinery, ICT equipment and other transport equipment. Figure 10 illustrates the relative contributions to growth in machinery and transport equipment across the economies in our sample.

The ICT equipment subsector accounts for most of the sector's growth. (Data was unavailable for Taiwan). The shift toward high technology is especially prominent in China, with the Government's 12th Five-Year Program for China's Economic and Social Development (2011 to 2015) encouraging research and development and innovation.[7] In 2010, China accounted for around one-third of global ICT equipment exports. Forecasts indicate that it will account for close to half of the expansion in global exports of ICT equipment over the next decade.

South Korea stands out for its relatively large contribution to the "other transport" subsector (including transport equipment other than passenger cars), forecast to contribute around 25% of the increase in machinery and transport equipment during 2010 to 2020.

Although perhaps best known for its electrical products, South Korea is also a world leader in the field of high-tech shipbuilding, such as subsea-drilling vessels and ice-breaking oil tankers. The shipbuilding industry is expected to maintain a major role in creating export growth for South Korea over the next decade, contributing the vast majority of the projected 12.5% annual growth in the country's "other transport" subsector exports.

Figure 10: Contribution to change in exports of machinery and transport, 2010-20



Source: Oxford Economics
Note: Totals may not equal 100% due to rounding

Footnotes

7. The plan primarily focuses on China's drive to raise the income of its rural population.

Exception to the rule

Vietnam and Indonesia are the only two RGMs in the sample where the machinery and transport equipment sector does not dominate export growth. In part, this is because these two economies have a relatively lower initial share of manufactured products among their exports. Their competitive advantage tends to reside in lower value-added products such as clothes and shoes.

This is illustrated in Figure 11, which compares average hourly rates of compensation in manufacturing across countries to the relative value of sophisticated exports (defined as machinery and transport equipment and passenger cars) to low-end manufactured exports (defined as other manufactured goods).

Indonesia is also a major commodities exporter, and its export sector will retain a bias toward raw materials.

Services export: the dark horse of future trade growth

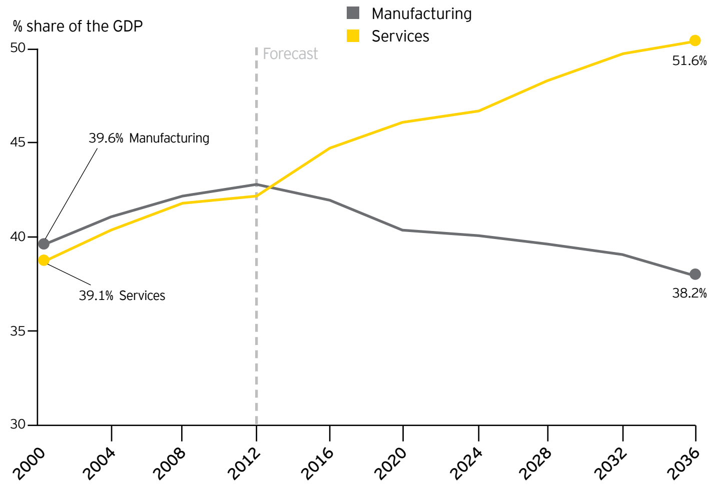
Recent changes in China's market foreshadow similar changes for the other Asia-Pacific markets. Over the coming decade, exports of services are also set to increase sharply throughout the region as the structure of Asia-Pacific's RGMs shifts. Figure 12 illustrates this trend for China.

The shift toward services represents a move away from the traditional export-led growth model of Asia-Pacific's RGMs. The increased prominence of the services sector reflects improvements in human capital, as businesses work to meet increased demand in higher-income home markets.

Figure 11: The division of labor in Asia (2010)

Source: Oxford Economics/UN Comtrade/BLS

Figure 12: China's market structure



Source: Oxford Economics

But the growth of an efficient and competitive services sector also opens opportunities for cross-border trade. Over the next decade, further improvements in technology, standardization and expansion of infrastructure will facilitate sourcing opportunities from abroad.

Although it starts from a low base, growth in services exports is forecast to be most rapid in Indonesia, with an average expansion of 15% annually from 2010 through 2020 (Figure 13). The research indicates that the increase (in absolute terms) will be greatest in China: a US$338b rise between 2010 and 2020, bringing total exports of services to around US$500b. Exports of services from Hong Kong and South Korea are also expected to expand significantly, with each increasing by around US$100b.

While services exporters are likely to predominantly seek to satisfy growing demand within Asia-Pacific, more companies in the region will challenge dominant services providers in developed markets. To do so effectively, however, companies must align and integrate their talent management approach with business performance. Talent management must be an integral part of business strategy.[8]

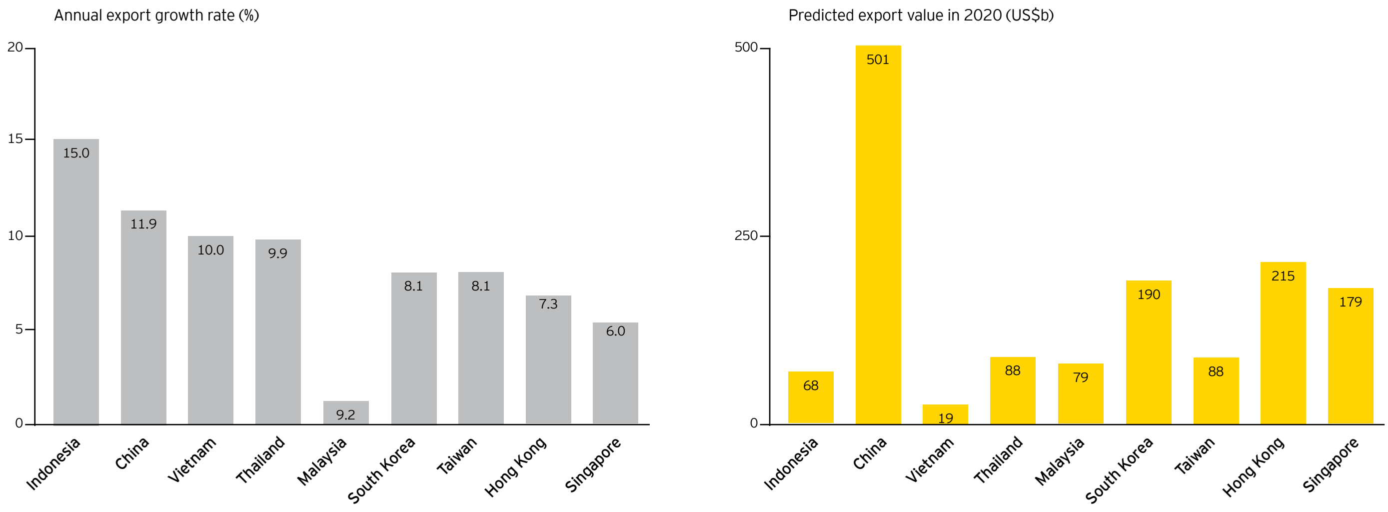
Tourism will contribute heavily to Malaysia's and Thailand's services exports. Both countries are expected to benefit from a continued influx of tourists, which will boost associated revenues.

According to Tourism Economics, the number of tourists traveling to Malaysia and Thailand will increase by around 13 million over the decade until 2020, pushing total annual visitor numbers to 38 million and 29 million, respectively. The total spending associated with these visitors is forecast to more than double over the same period, reaching US$37b and US$45b, respectively.[9] Meanwhile, South Korea will benefit from the expansion of its transport services subsector, linked to its shipping industry (Table 6).

Footnotes

8. Ernst & Young, *Growing pains: companies in rapid-growth markets face talent challenges as they expand*
9. Long-haul travelers account for around two-thirds of the forecast visitors to Thailand in 2020, compared with only 12% in Malaysia. As long-haul travelers tend to stay longer and spend more, this explains the relatively lower average spend per visitor in Malaysia.

Figure 13: Asia-Pacific exports of services, 2010-20



Source: Oxford Economics

> "To date the Chinese banks have been domestically focused, but over the next 10 to 15 years, we will see more international institutions expanding globally, similar to Japanese institutions."

Marc Symons, Transaction Advisory Services, Banking & Capital Markets, Financial Services, Ernst & Young

Table 6: Contribution to change in exports of services

Greater than 50% · Between 26% and 50% · Between 10% and 25% · Less than 10%

	Business and finance	Communications	Tourism	Transport	Other
China	52.7	0.6	28.3	17.6	0.6
Hong Kong	52.7	1.3	18.9	27.2	0.2
Indonesia	32.2	7.4	40.3	16.3	3.8
Malaysia	30.6	2.3	48.8	15.8	2.4
Singapore	62.5	1.0	9.8	26.3	0.2
South Korea	25.9	1.2	10.9	59.5	2.4
Taiwan	52.6	0.9	22.7	22.8	0.8
Thailand	24.1	1.2	58.5	14.7	1.3

Key questions for companies to consider

- Are you improving your supply chain for the trade patterns of the next decade?
- Can you capitalize on the future rise of Asia-Pacific as a hub of business trade?
- Can customs, warehousing and distribution restrictions affect the viability of your cross-border growth strategy?
- Is your company aware of the costs and implications of transactions, including the ability to make effective use of free-trade agreements?

Alternative scenarios to the baseline forecast

From looking at the macro and micro factors of the Asia-Pacific rapid-growth markets, two probable scenarios have come into view in light of the growing middle class and advancement in manufacturing technologies.

Highlights

- Scenario 1: Rapid growth in Asia's middle class exceeds the baseline forecast. A rebalancing toward domestic demand in China stimulates export growth in other Asia-Pacific economies. A virtual circle of growth is thereby created in the region, feeding higher levels of intra-regional trade.
- Scenario 2: The speed at which China moves up the value chain exceeds the baseline, reducing intra-regional trade as China produces, rather than imports, more high-technology products.

Scenario 1:
Faster growth in Asia's middle class

Asia's middle class is among the world's fastest-growing population groups. The huge structural transformation that this entails is particularly evident in China, where labor is moving from the low-productivity agricultural sector to the manufacturing sector.

A shift toward higher-value-added production drives demand for skilled workers. With wages linked to productivity, average earnings increase, ensuring rising quality of employment. With more than 100 million agricultural workers in China, the rate at which the population reaches the "threshold" level of income where consumer spending takes off has enormous economic and commercial implications.

Against this background, this scenario finds 75% of the population living in urban areas in 2020, compared with a baseline forecast of 61%. The current average income of city dwellers is more than three times that of rural residents, and this disparity is likely to widen. Such a major movement to cities implies a significant boost to the average income level of the entire population.

Domestic policy changes that facilitate urbanization could drive faster growth in China's middle class. For example, migrants with rural origins often find it difficult to change residency status after moving to a city, leaving them without access to urban amenities such as public services, credit and housing markets, social insurance, social security, education and job training. Divorcing residency status from the right of access to these services would foster greater urban concentration.

Other policy changes could increase middle-class household spending by lowering the very high savings rate. In particular, the Chinese Government could place more emphasis on policies to improve the domestic pension system, and the effectiveness of the health care system.

> "Asian investors are looking for new manufacturing hubs, and among these are certain markets in the MENA region because of its proximity to Europe."

Alexis Karklins-Marchay, Co-leader, Emerging Markts Center, Ernst & Young

A social safety net would help to reduce China's high private savings rate, leaving households with more discretionary income. Other well-targeted public services could improve the quality of human capital and raise incomes. We estimate that such reforms could boost China's average GDP growth rate over the period by around 0.6% points, which would leave the level of Chinese GDP in 2020 6.2% higher than our central forecast. The share of consumer spending in Chinese GDP would also rise by around 2% points relative to our baseline.

While China is obviously the most important driver of the aggregate size of Asia's middle class, other economies in the region could potentially enjoy a similar increase in prosperity. Indonesia, Malaysia, Thailand and Vietnam all have potential for more rapid migration from rural to urban areas. Faster growth of domestic demand in China could act as a catalyst for change in these countries by stimulating more rapid growth in their exports, leading to increased domestic investment in productive capacity.

The creation of more productive jobs would attract rural migrants to the city. In this scenario, we estimate that by 2020 these economies would experience GDP gains (relative to our baseline forecast) ranging from 0.6% in Indonesia to 4.3% in Thailand.

The rebalancing of growth toward greater reliance on domestic demand in China would result in a significant import increase, boosting trade with other Asia-Pacific countries. Table 7 illustrates how trade patterns in the region would evolve compared with the baseline.

The increase in Chinese demand would spill into higher investment and consumption in Indonesia, Malaysia, Thailand and Vietnam, boosting GDP and imports into these countries. Hong Kong would stand to gain significantly due to its role as a major trading post and intermediary. The result: a virtual circle of growth is created in the region, feeding higher levels of intra-regional trade.

Although China's exports and imports both increase in this scenario, the country's overall balance of trade improves. Exports from the rest of the world to China rise while Chinese exports to the rest of the world are little changed, leading to a more rapid resolution of global imbalances.

Table 7: How would faster growth in Asian middle classes impact intra-regional growth in merchandise exports?

Difference in growth rate compared to baseline (% points)

2% points higher or more · 1.5% points higher or more · 0.5% points higher or more · less than 0.5% points

Flows from:	China	Hong Kong	Indonesia	Malaysia	Singapore	South Korea	Taiwan	Thailand	Vietnam	World
China	n/a	0.6	0.9	1.5	0.7	0.2	0.3	1.9	0.8	0.5
Hong Kong	0.9	n/a	1.6	2.0	1.0	0.6	0.3	2.6	1.3	0.5
Indonesia	1.4	0.5	n/a	0.2	0.1	0.1	0.1	0.7	0.4	0.2
Malaysia	3.1	0.5	0.6	n/a	0.1	0.3	0.6	1.1	1.0	0.5
Singapore	2.1	0.1	0.1	0.1	n/a	0.2	0.3	0.9	0.4	0.3
South Korea	0.9	0.2	0.4	1.1	0.3	n/a	0.2	2.6	0.4	0.3
Taiwan	0.9	0.1	0.9	0.9	0.2	0.2	n/a	1.5	0.3	0.3
Thailand	3.7	0.4	0.5	0.6	0.4	0.7	0.6	n/a	0.8	0.7
Vietnam	3.9	0.9	1.1	1.2	0.9	0.4	0.8	3.1	n/a	0.6

"Southeast Asian companies are realizing that they can't continue playing the low-cost game to stay competitive. To maintain margins, they need to move up the value chain, and they need to acquire know-how and technology as part of that strategy."

Seng Leong Teh, Transaction Advisory Services, Ernst & Young

Scenario 2:
China moves up the value chain

Recent improvements in China's technological capabilities, with the manufacture of technology-intensive components where profit margins are greater, underscore China's strong desire to move up the international value chain. Over the last decade China has become increasingly specialized in final assembly, importing higher value-added parts and components from other countries in the region to be re-exported as final goods.

National development policies encourage this shift toward upward movement on the value chain, as well as market forces, as higher labor costs erode China's cost competitiveness in low-end manufacturing.

Table 8 reveals that China's foreign value-added (FVA) share in manufacturing currently amounts to about 30%, compared with just 17% in Japan. In this scenario, we assume that around half of the gap in China's FVA share relative to Japan is eroded, bringing down China's average FVA share in manufacturing to around 24%.

A more rapid move up the value chain in China would be associated with a more rapid expansion of high-technology exports, as firms capture market share from higher-cost rivals. At the same time, the reduced foreign content of these exports would put downward pressure on Chinese imports, dampening trade in parts and components from other countries in Asia.

China's investment in production capacity would boost the region's growth potential and support incomes. Domestic demand would grow faster, which would partially offset the downward pressure on imports. The overall economic impact would be an increase of China's headline GDP of just over 5% relative to our "base case" forecast by 2020.

Chinese firms would increase their penetration of Western markets in this scenario, gaining share from other economies in the East and Southeast of Asia (Table 9). China could also look further afield to expanding markets in Africa and Latin America, which are likely to represent attractive opportunities not only for consumer products, but also for high-technology industrial goods.

As China gains market share in exports of high-technology final goods, other Asia-Pacific RGMs would be left to lower their exports to countries outside the region. This would have a negative impact on the export economies of East and Southeast Asia as demand dampens for their manufactured parts and components. Cross-border movement of parts and components, a key driver of overall baseline trade volumes, would be reduced.

Hong Kong would gain in this scenario, intermediating large volumes of trade between China and the rest of the world. Taiwan, on the other hand, given its expertise in the ICT sector, would not. South Korea, Thailand and Malaysia would also experience significantly lower trade volumes. Indonesia and Vietnam would be the regional exceptions and would be expected to gain in this scenario. As one market's cost competitiveness in low-end manufacturing erodes more rapidly, other markets would naturally take advantage of the opportunity to displace the exports of these goods, both regionally and globally.

Table 8: Climbing the value chain faster would reduce the foreign content in gross exports by 2020
Foreign content in gross exports by 2020

	China baseline	Japan baseline	China scenario
Manufacturing average	30.4%	17.4%	23.9%
Low technology	19.6%	16.6%	18.1%
Medium-low technology	26.6%	23.9%	25.3%
Medium-high technology	29.6%	15.7%	22.7%
High technology	48.5%	21.5%	35.0%

Source: Riad, Nagwa, et al. *Changing patterns of global trade*, International Monetary Fund Departmental Working Paper, No. 12/01

> "As Asian companies look to expand globally, they will begin competing with other multinational companies. While brand and quality will remain important to consumers, Asian companies will also be competing with many other similar high-quality products, which will make pricing of products a critical element to global expansion success."

Channing Flynn, Global Technology Tax Leader, Ernst & Young

Table 9: How would a rapid rise up the value chain impact intra-regional growth in merchandise exports?

Difference in growth rate compared with baseline (% points)

2% points higher or more | 1.5% points higher or more | 0.5% points higher or more | less than 0.5% points | decrease

Flows from:	China	Hong Kong	Indonesia	Malaysia	Singapore	South Korea	Taiwan	Thailand	Vietnam	World
China	n/a	0.9	0.6	0.5	0.6	0.5	0.4	0.6	0.2	0.5
Hong Kong	0.1	n/a	0.6	0.5	0.4	0.5	0.4	0.4	0.2	0.2
Indonesia	0.8	1.4	n/a	0.6	0.2	0.8	0.3	0.7	0.4	0.6
Malaysia	-0.2	-0.1	-0.1	n/a	0.0	-0.2	0.3	0.0	-0.1	-0.2
Singapore	-0.1	0.0	0.0	0.0	n/a	-0.1	-0.1	0.0	0.0	-0.1
South Korea	-0.1	-0.1	-0.1	-0.2	-0.2	n/a	-0.1	-0.2	0.0	-0.2
Taiwan	-0.2	-0.1	-0.1	-0.3	-0.2	-0.4	n/a	-0.3	-0.1	-0.3
Thailand	-0.2	-0.1	-0.1	0.0	-0.1	-0.3	-0.2	n/a	0.0	-0.2
Vietnam	1.0	1.0	0.6	0.5	0.9	1.1	0.8	0.6	n/a	0.7

Table 10: How would a rapid rise up the value chain impact growth in merchandise exports outside Asia-Pacific RGMs?

Difference in growth rate compared with baseline (% points)

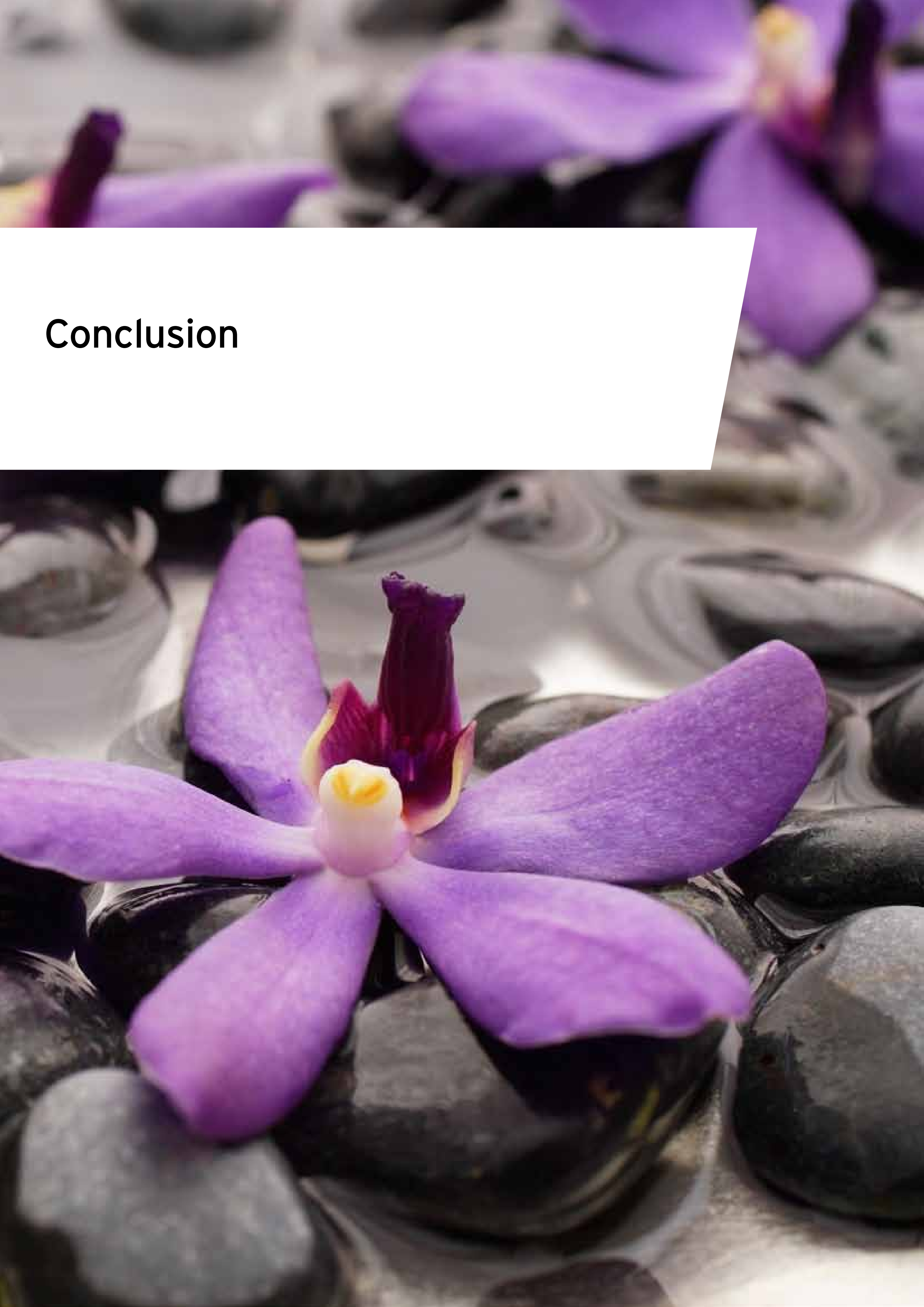
2% points higher or more | 1.5% points higher or more | 0.5% points higher or more | less than 0.5% points | decrease

Flows from:	India	Japan	Australia	France	Germany	Rest of Eurozone	UK	US	Latin America & Caribbean	Africa & Middle East
China	0.6	0.3	0.4	1.2	0.9	0.9	0.8	0.4	0.5	0.3
Hong Kong	0.4	0.4	0.4	1.1	0.9	1.2	0.5	0.4	0.6	0.3
Indonesia	1.5	0.2	0.4	3.8	2.9	1.7	2.6	1.2	1.2	0.3
Malaysia	-0.8	-0.1	-0.1	-0.7	-0.5	-0.6	-0.6	-0.3	-0.3	-0.1
Singapore	-0.1	-0.1	0.0	-0.2	-0.4	0.2	-0.5	-0.2	-0.1	-0.1
South Korea	-0.3	-0.2	-0.2	-1.5	-0.8	-0.6	-0.7	-0.3	-0.1	-0.1
Taiwan	-0.1	-0.3	-0.6	-2.4	-1.3	-1.3	-0.9	-0.5	-1.0	-0.1
Thailand	-0.2	-0.1	-0.1	-0.9	-0.9	-0.7	-0.4	-0.3	-0.2	0.0
Vietnam	2.9	0.3	0.3	2.0	1.5	1.9	1.5	0.5	1.2	0.4

Key questions for companies to consider

- Does your business have an early warning system that alerts you to potential economic policy shifts?
- Are your global strategies and supply chain flexible enough to respond quickly to new opportunities and challenges created by alternative trade scenarios?
- Does your organization have the right relationships with local regulators and government officials?
- Can your business transfer capabilities, brand and acquired intellectual property back to Asian markets?

Conclusion



The economies of East and Southeast Asia are projected to capture a larger share of global trade over the next 10 years as their expansion outpaces that of developed nations. While fragmentation of production processes across countries will continue to drive regional export volume, the rise of the middle class in Asia means that a greater share of these goods will be produced within the region to satisfy demand within Asia.

The US is expected to remain the world's largest consumer market in 2020, making it an important destination for export expansion by Asia-Pacific firms. Despite the global economic shift toward the East, markets outside the region still represent attractive opportunities for Asia-Pacific exporters due to their size.

Our forecasts also highlight the growing importance of new markets in Africa and the Middle East. The expansion of exports from most Asia-Pacific economies to these regions is expected to be greater in value than the increase in trade to the Eurozone.

The machinery and transport equipment sector will mainly fuel this growth in exports from most Asia-Pacific RGMs. ICT equipment will be the most important component of this growth, as the regional economies move up the value chain into high-technology goods.

Vietnam and Indonesia are the only two economies where low-end manufacturing mainly drives growth, reflecting their late adoption of export-oriented industrialization strategies.

Over the next decade, exports of services will increase strongly, in part driven by increased demand for services in home markets as the population grows wealthier.

We project the cross-border markets for business and financial services to be vibrant over the next decade, with strong financial centers such as Hong Kong strengthening and consolidating their positions.

Alternative scenarios

Given the uncertainties inherent in any forecast, we consider two alternative scenarios for the evolution of trade in Asia:

1. A faster-than-baseline growth in Asia's middle class would generate a virtual circle of growth in the region, feeding higher levels of intra-regional trade.

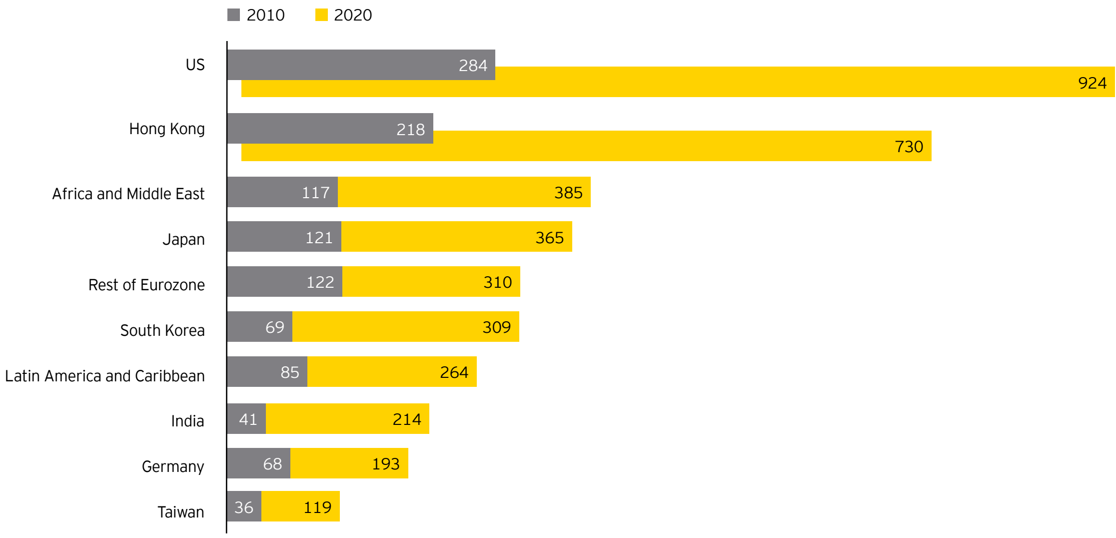
2. One country's more rapid move up the value chain, beyond the baseline (China, for example), would lead to a decline in intra-regional trade levels, as more components of the supply chain for high-technology products would be within China.

The rapid growth of the consumer market in Asia represents a significant opportunity for multinationals that are able to interpret these trends and the possible alternatives and adapt their business strategies to cater for Asian tastes and preferences.

Appendix: Baseline forecasts for rapid-growth markets

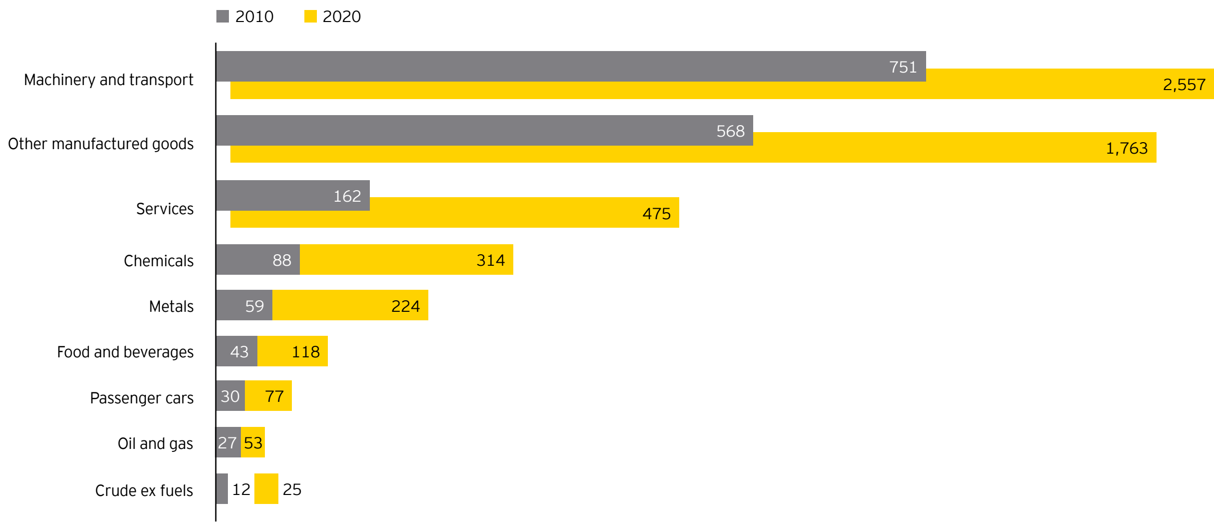
China

China merchandise exports, 2010-20



Source: *Oxford Economics.*
Note: Value in US$b.

China exports by sector, 2010-20

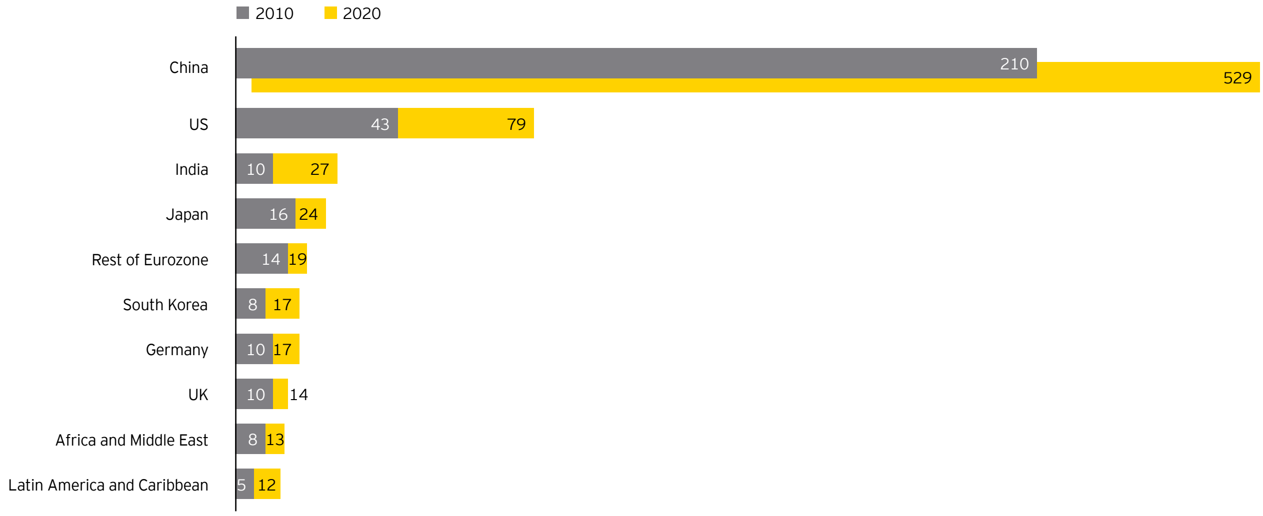


Source: *Oxford Economics/UN Comtrade.*
Note: Value in US$b.

- The US will remain China's most important export market, with merchandise exports rising more than three-fold to US$924b over the next decade.
- Growth in Chinese exports will be driven by machinery and transport equipment industries, with annual growth averaging 13% from 2010 to 2020.

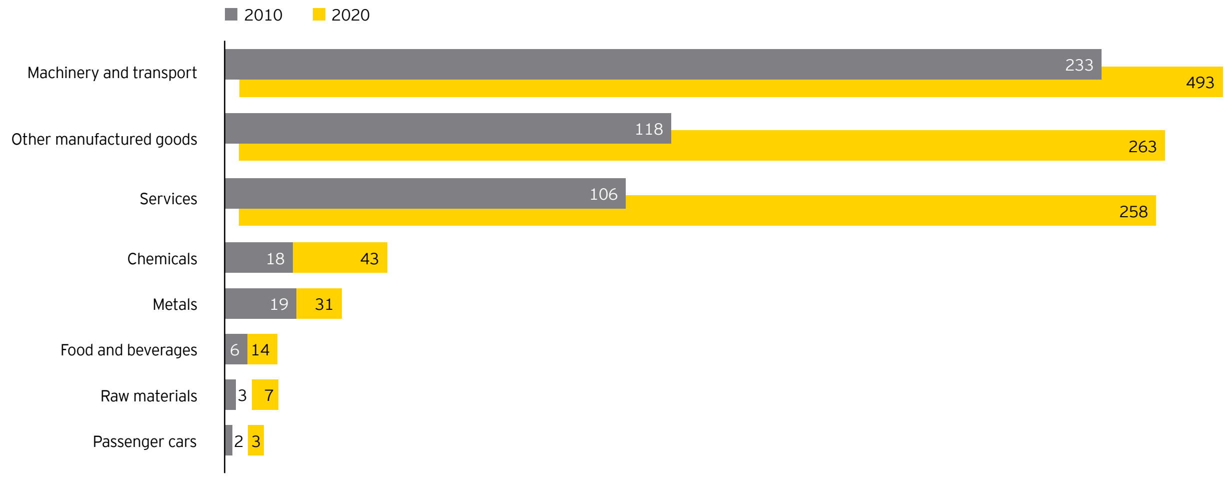
Hong Kong

Hong Kong merchandise exports, 2010-20



Source: *Oxford Economics.*
Note: Export value by destination market, US$b.

Hong Kong exports by sector, 2010-20

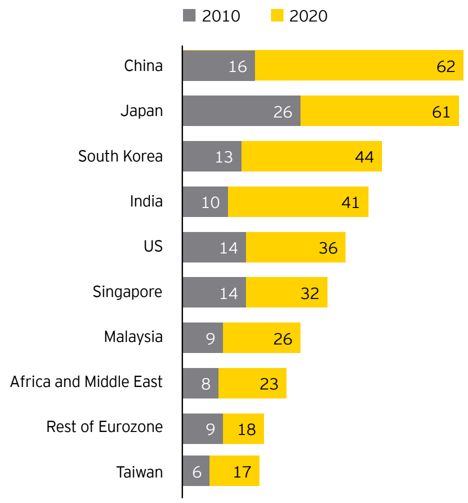


Source: *Oxford Economics/UN Comtrade.*
Note: Value in US$b.

- Hong Kong will expand its role as a trading destination and gateway to and from China, with exports to the mainland reaching US$529b by 2020.
- Hong Kong will also consolidate its position as a global financial center over the next decade, helping to boost exports of services.

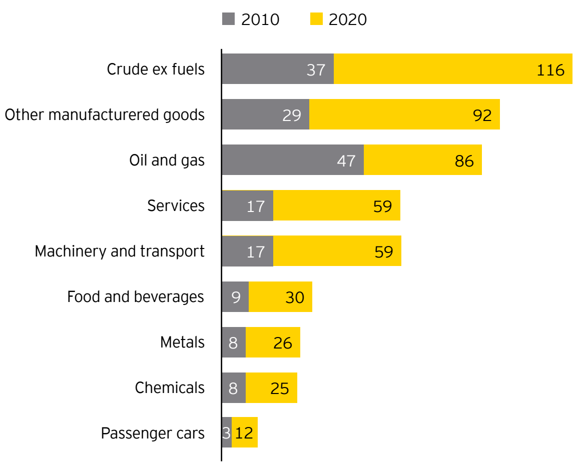
Indonesia

Indonesia merchandise exports, 2010-20



Source: *Oxford Economics.*
Note: Export value by destination market, US$b.

Indonesia exports by sector, 2010-2020

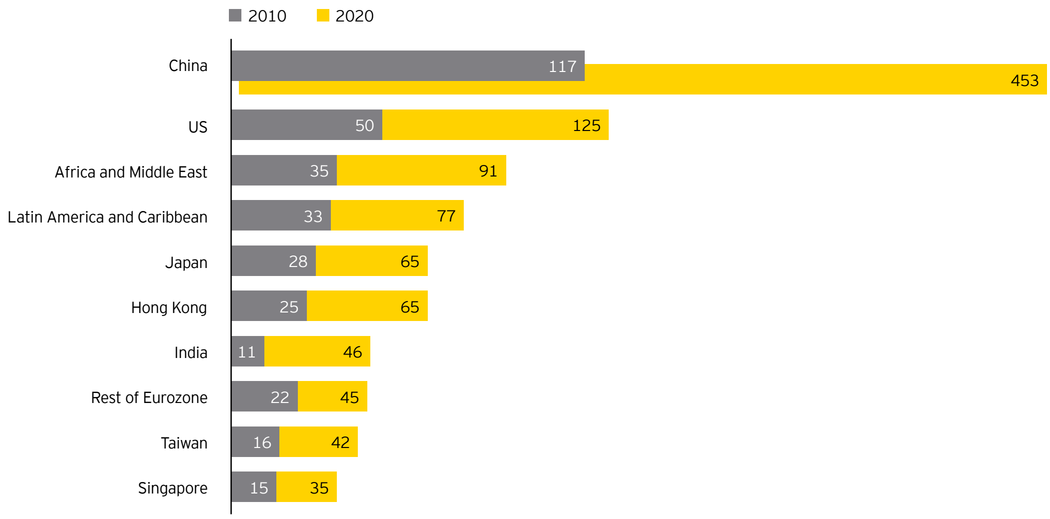


Oxford Economics/UN Comtrade.
Note: Export value by sector, US$b.

- Indonesian exports, which will expand by 15% annually over the next decade, will benefit from India as its fastest-growing market.
- Export growth will be driven by Indonesia's commodity wealth and its comparative advantage in lower value-added other manufacturing.

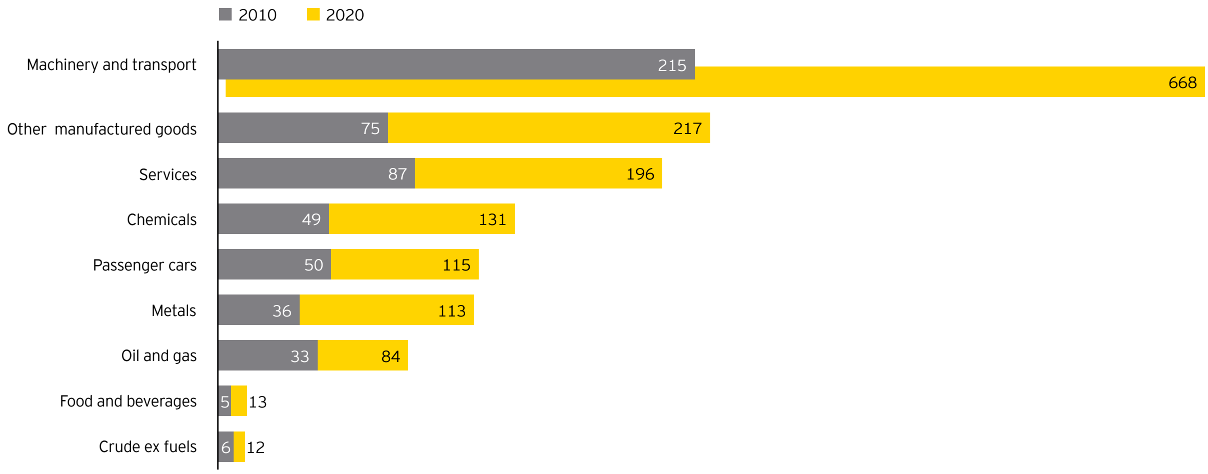
South Korea

South Korea merchandise exports, 2010-20



Source: *Oxford Economics.*
Note: Export value by destination market, US$b.

South Korea exports by sector, 2010-20

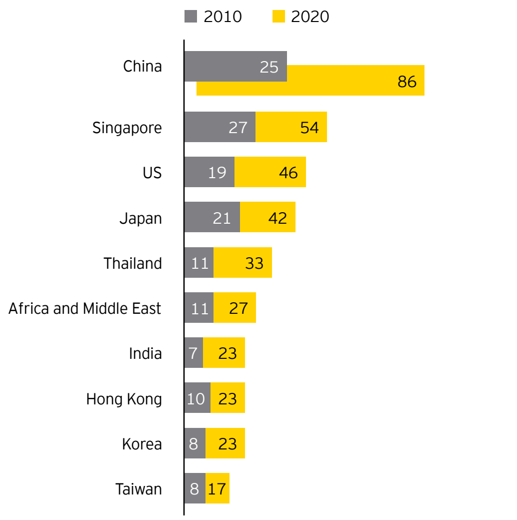


Oxford Economics/UN Comtrade.
Note: Export value by sector, US$b.

- India and China represent the most rapidly expanding markets for South Korean exports over the next decade, with annual growth of close to 15%.
- Exports of machinery and transport equipment are forecast to expand by 12% a year, pushing the sector's share in total exports to 43% by 2020.

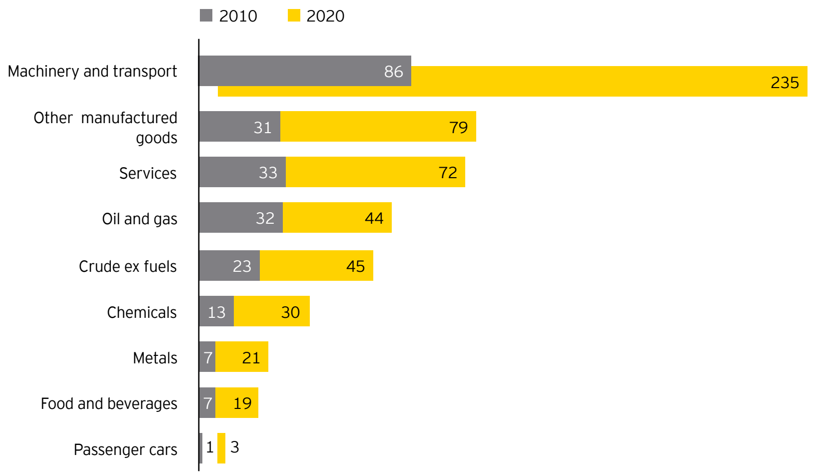
Malaysia

Malaysia merchandise exports, 2010-20



Source: *Oxford Economics.*
Note: Export value by destination market, US$b.

Malaysia exports by sector, 2010-20

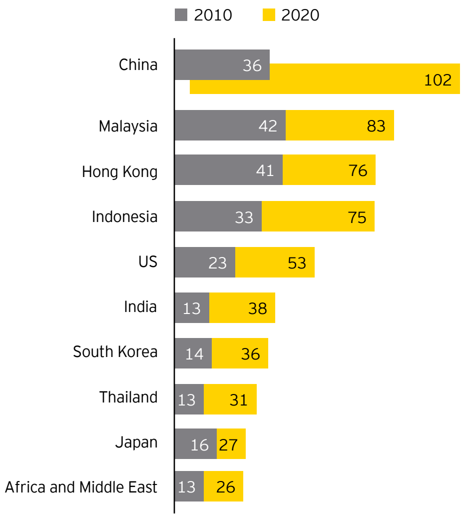


Source: *Oxford Economics/UN Comtrade..*
Note: Export value by sector, US$b.

- Malaysian exports to China are forecast to rise by US$61b over the next decade, while exports to Singapore and the US each rise by around US$27b.
- Exports of machinery and transport equipment are forecast to expand by 10.6% per year to reach US$235b by 2020.

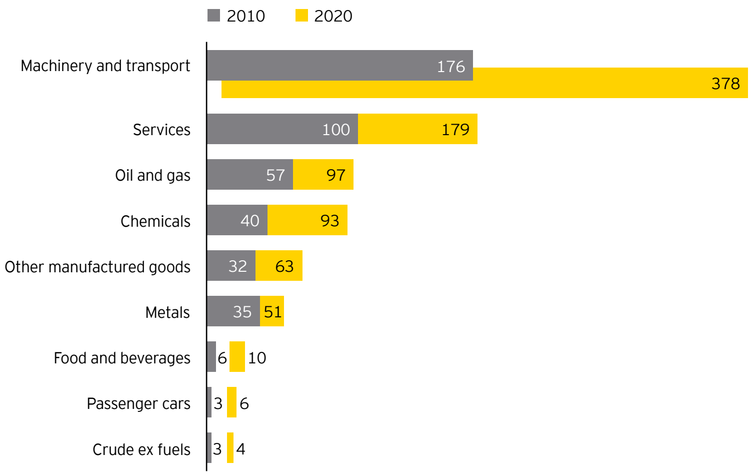
Singapore

Singapore merchandise exports, 2010-20



Source: *Oxford Economics.*
Note: Export value by destination market, US$b.

Singapore exports by sector, 2010-20

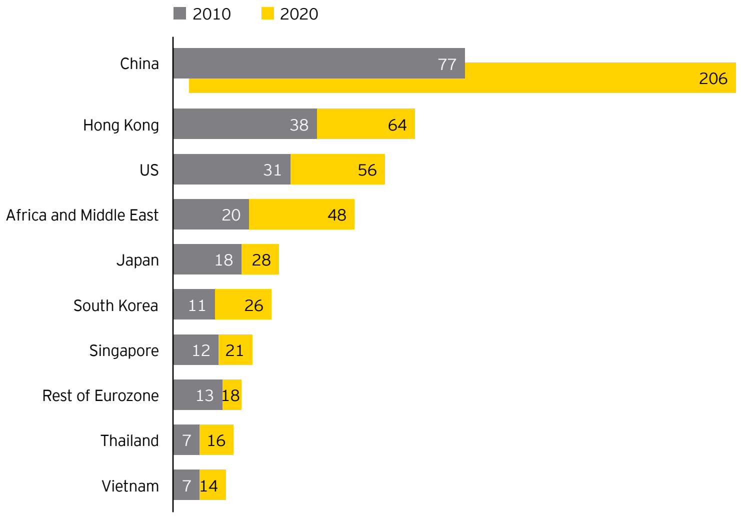


Source: *Oxford Economics/UN Comtrade.*
Note: Export value by sector, US$b.

- Singapore's trading partners will remain diversified across Asia, and the country will continue to expand outside the region, with the US a key market.
- Singapore will remain a crucial hub for global trade, transport and financial services over the next decade.

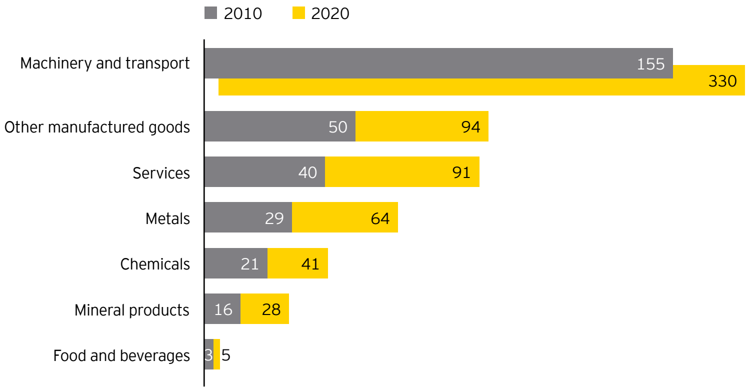
Taiwan

Taiwan merchandise exports, 2010-20



Source: *Oxford Economics.*
Note: Export value by destination market, US$b.

Taiwan exports by sector, 2010-20

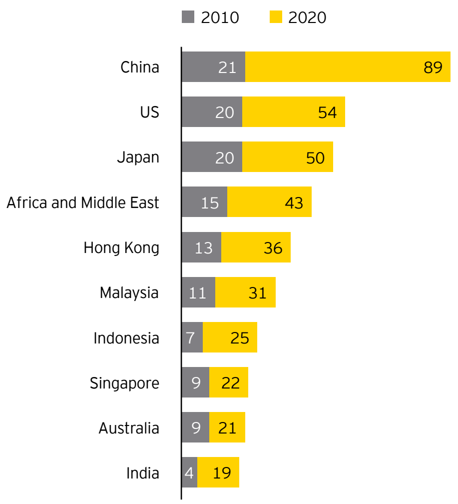


Source: *Oxford Economics/UN Comtrade.*
Note: Export value by sector, US$b.

- While the focus of Taiwanese exporters is naturally turning to China and Hong Kong, new markets in Africa and the Middle East represent significant expansion opportunities.
- Export growth will be driven by high-tech products, but Taiwan will maintain a presence in intermediate goods such as chemicals and basic metals.

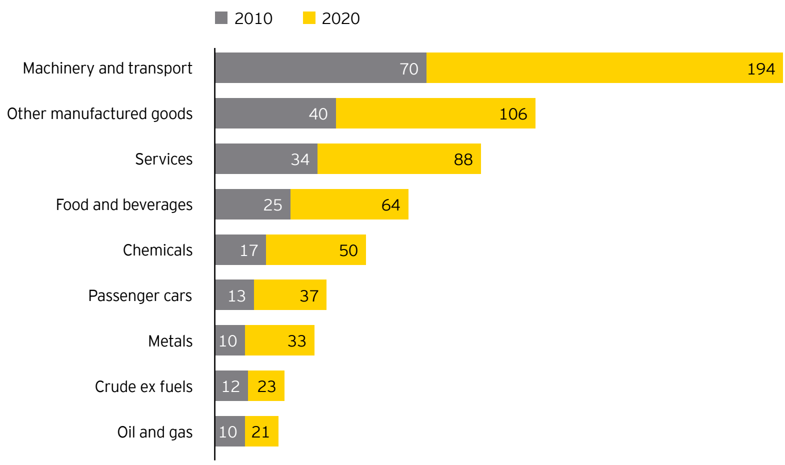
Thailand

Thailand merchandise exports, 2010-20



Source: *Oxford Economics.*
Note: Export value by destination market, US$b.

Thailand exports by sector, 2010-20

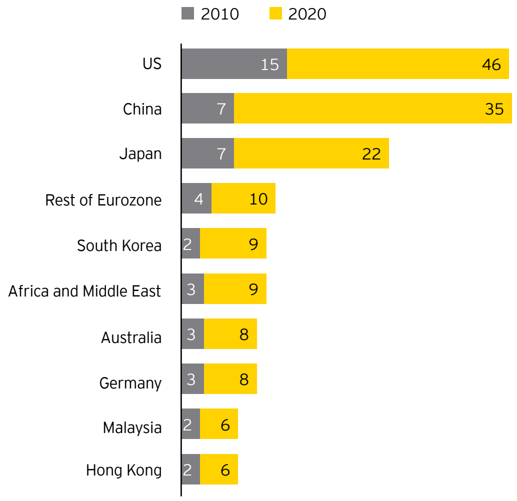


Source: *Oxford Economics/UN Comtrade.*
Note: Export value by sector, US$b.

- Thai exporters will retain their focus outside the region, with the US, Japan, Africa and the Middle East as important trading routes in 2020.
- Exports of cars are forecast to expand more rapidly than other manufactured products, as Thailand becomes a regional center for automobile production.

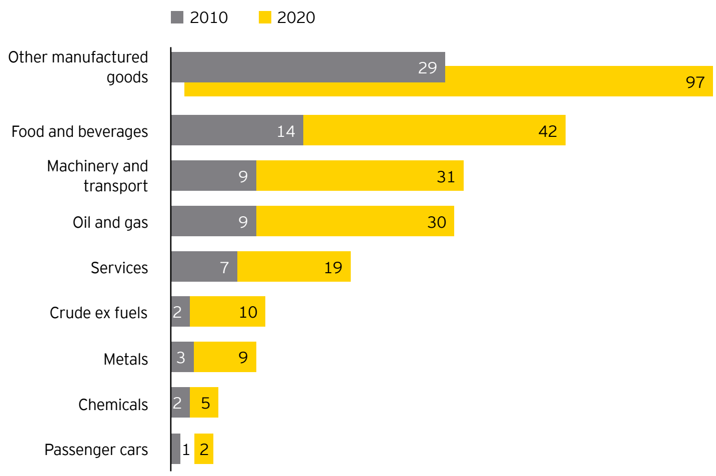
Vietnam

Vietnam merchandise exports, 2010-20



Source: *Oxford Economics*.
Note: Export value by destination market, US$b.

Vietnam exports by sector, 2010-20



Source: *Oxford Economics/UN Comtrade*.
Note: Export value by sector, US$b.

- The US will remain Vietnam's most important trading partner in 2020, with exports growing by US$32b over the next decade.
- Natural commodities will remain important exports in 2020, but Vietnam will also expand as an export platform for low value-added manufacturing.

Glossary of terms

Asia-Pacific — For the purposes of this report, the markets we surveyed are referred to as "Asia-Pacific": Hong Kong, Indonesia, China, Malaysia, Singapore, South Korea, Taiwan, Thailand and Vietnam.

Chemicals — Chemical manufacturing; based on the Standard International Trade Classification (SITC) methodology

Crude ex fuels — Mining operations sector based on SITC methodology

Food and beverages — Food and beverages as well as crops, livestock and fishing; based on SITC methodology

Foreign value-added (FVA) — Foreign content embedded in exports and calculated on the basis of gross exports

Machinery and transport — Industrial equipment, aerospace and defense, transport equipment (excluding cars), household electrical appliances and ICT equipment; based on SITC methodology

Megacities — Urban areas with populations exceeding 10 million

Metals — Primary and fabricated metals; based on SITC methodology

Oil and gas — Oil and gas operations; based on SITC methodology

Other manufactures — Textiles, lumber and wood, printing and packaging, rubber and plastics, medical and pharmaceutical, other durable goods; based on SITC methodology

Passenger cars — Automotive manufacturing; based on SITC methodology

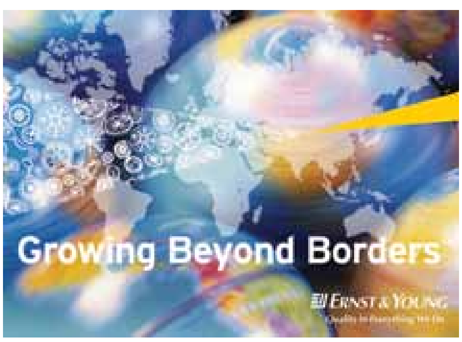
RGMs — Rapid-growth markets

SAR — Special Administrative Region (e.g., Hong Kong)

Services — Tourism, transport, business and finance, communications and other services sectors based on SITC methodology

Sophisticated exports — Machinery, transport equipment and passenger cars

Vertical specialization — The trend of production becoming more internationalized, with countries specializing in different stages of production, so the same goods may pass through several borders before reaching the final consumer



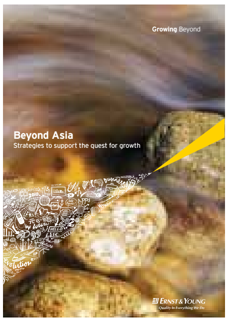
Growing Beyond Borders™ (GBB)

Ernst & Young's Growing Beyond Borders™ (GBB) is an interactive tool that helps you navigate the challenges and opportunities in doing business across the globe. During a GBB session you'll explore publicly available data depicted in heat maps, competitive footprint views and comparison tables, both regionally and globally, to help you make better business decisions.

Your GBB session will help you:

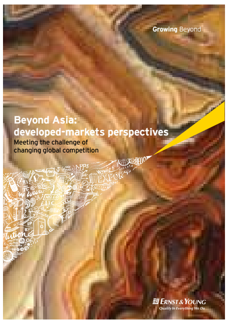
- Identify and analyze risks tailored to your individual priorities and displayed visually to give you instant insights
- Seize opportunities for profitable growth based on a clear overview of your competitors' current position and gaps in the market
- Accelerate your decision-making, freeing up time to focus on implementing your strategy

Related Ernst & Young publications



Beyond Asia: strategies to support the quest for growth

Asian companies are major players in international business, but gearing up for additional growth will require greater understanding of the nuances of global business to leverage the next big opportunities. This report contains thought-provoking insights for all businesses that are developing strategies for global expansion.



Beyond Asia: developed-markets perspectives

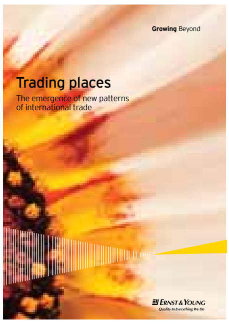
This report examines how companies based in developed markets can explore the implications of Asian overseas expansion. It offers practical perspectives into how both Asian and developed-market businesses can turn this trend to their advantage and attain a common goal – growth.

Growing pains: companies in rapid-growth markets face talent challenges as they expand

Getting the talent equation right has never been easy for businesses, but as they globalize, it is proving exceptionally difficult. Our research identified four major challenges that affect rapid-growth market companies. We also make recommendations that offer effective responses to these challenges.

Paradigm shift: building a new talent management model to boost growth

Finding and keeping the best global talent is not a "soft" issue. The financial performance of a company links directly to how it manages talent. This report explores how companies can bridge the gap between what they expect from their workforce and the skills and capabilities that are available in the marketplace.



Trading places: the emergence of new patterns of international trade

World trade has recovered strongly following the global financial crisis. But does this mark a return to business as usual, or are we seeing new patterns of international trade develop? This report seeks to provide insight and analysis to help support international trade decisions.

China's productivity imperative

A gloomy global macroeconomic outlook has already had considerable impact on the Chinese economy. At the same time, China's productivity growth has also fallen. Learn how companies can maximize efficiency gains in their organizations and drive a new round of profitable growth across the economy.

Rethinking profitable growth: the productivity imperative for foreign multinationals in China

Companies in China will need to transform their approaches to productivity improvement to remain successful in a rapidly changing and more challenging business environment. This report examines how foreign multinationals are adjusting to this new environment.

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Growing Beyond

In these challenging economic times, opportunities still exist for growth. In *Growing Beyond,* we're exploring how companies can best exploit these opportunities – by expanding into new markets, finding new ways to innovate and taking new approaches to talent. You'll gain practical insights into what you need to do to grow. Join the debate at www.ey.com/growingbeyond.

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