

GROW WITH US.

2017 NORTH CAROLINA INTERNATIONAL TRADE REPORT

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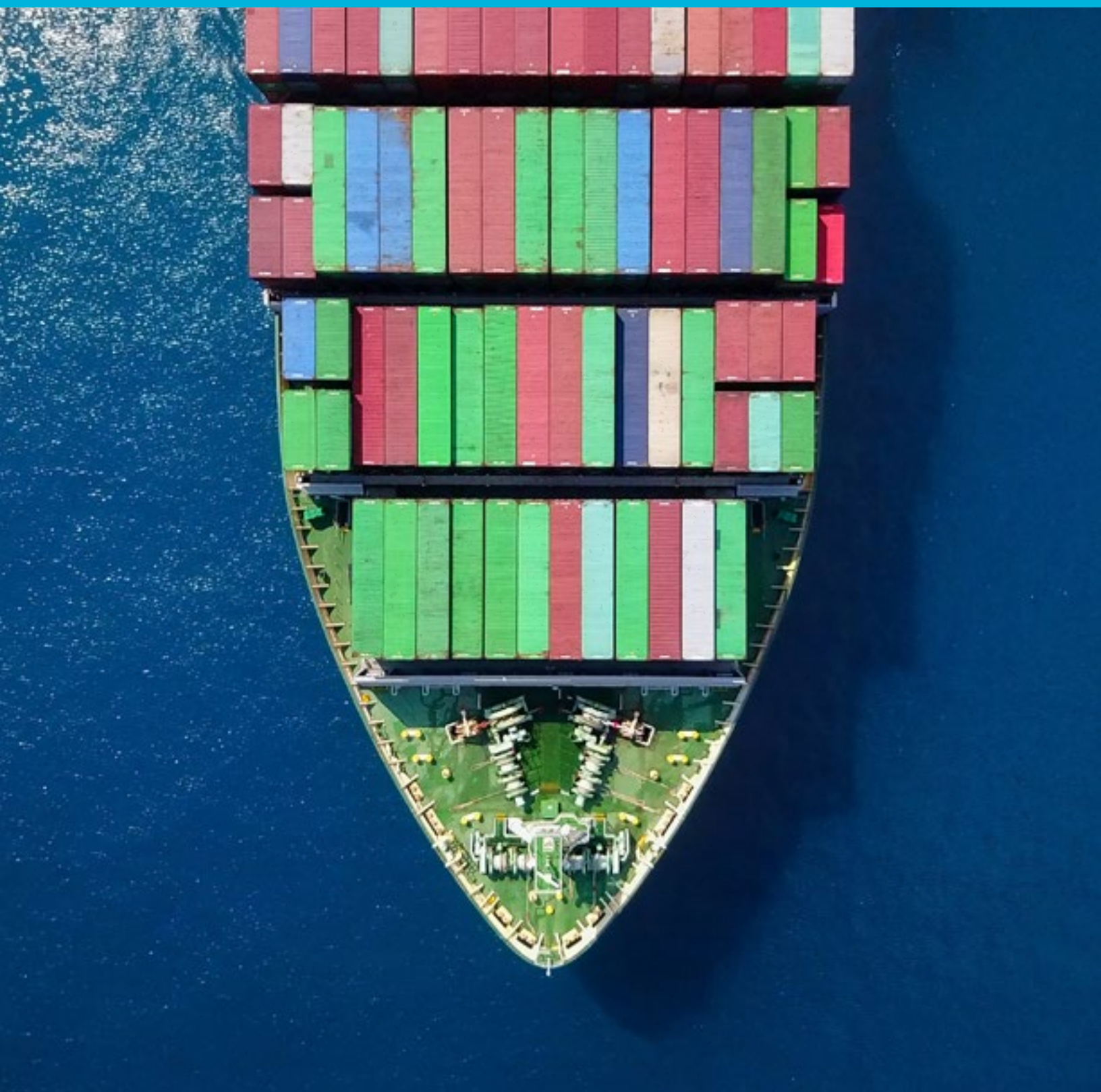


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GLOBAL GROWTH SUPPORTS SURGE IN NORTH CAROLINA EXPORTS

A MESSAGE FROM MIKE HUBBARD, EDPNC'S DIRECTOR OF INTERNATIONAL TRADE

North Carolina's exports of goods and services support 373,188 jobs across the state. ¹ As North Carolina's economy continues to grow, local businesses will continue to export more products to overseas markets. North Carolina firms saw a great deal of export growth in 2017. Export growth was supported by a favorable macroeconomic environment domestically and increasing foreign demand for goods produced in the US. North Carolina's competitive advantage in exports has not happened by circumstance. For many years, export support organizations have worked across the state's business community to promote global trade. And since 2014, EDPNC's International Trade Division has assisted North Carolina companies – big and small – with selling their products around the globe. EDPNC is proud to be part of an organization of networks that support North Carolina export growth.

In 2017, North Carolina retained its position as a trade leader. The value of exports from the state increased to \$32.6B on a nominal basis, an increase of 8% from the previous year. Export activity is difficult to forecast because a variety of political and macroeconomic factors can shape trade flows. As the US engages in negotiations to reshape trade agreements like NAFTA, the level of uncertainty about future export activity is even higher than normal. However, in general, we believe North Carolina is well-positioned to remain a top state for exporting businesses. Our state's diversified economy continues to see growth in leading industry sectors for exports. From pharmaceutical manufacturing goods to information technology services, North Carolina's export profile remains highly competitive.

While North Carolina has many assets for exporters, the state also faces some challenges. Currently, global trade is characterized by a great deal of economic and political uncertainty. Broadly speaking, the US dollar depreciated against many global currencies in the past year. Dollar depreciation is a great boon for North Carolina businesses because "cheaper" dollars make it more affordable to export products. But the dollar's value against a global basket of currencies is always difficult to predict. If dollar appreciation occurs in 2018, exports could be suppressed. The growth picture is complicated by geopolitical factors. The reverberations of 'Brexit' and the implications of recent import tariffs by the US federal government will shape global trade in unknown ways.

These sets of challenges are not unique to North Carolina, but they can be a barrier to market entry for business. EDPNC is committed to helping businesses navigate these obstacles in 2018 and beyond. Our International Trade Division works daily to help businesses of all sizes export their product to foreign markets. Businesses can get support from staff at our Cary headquarters and our network of international offices around the world. EDPNC maintains international offices in major markets like Canada, China, Japan, Hong Kong, Mexico, and the European Union. NC companies can easily navigate the complex export process through a mixture of assistance from our local staff and "on the ground" expertise from international offices.

When reading this report, it is important to keep in mind a few things to better understand the data.

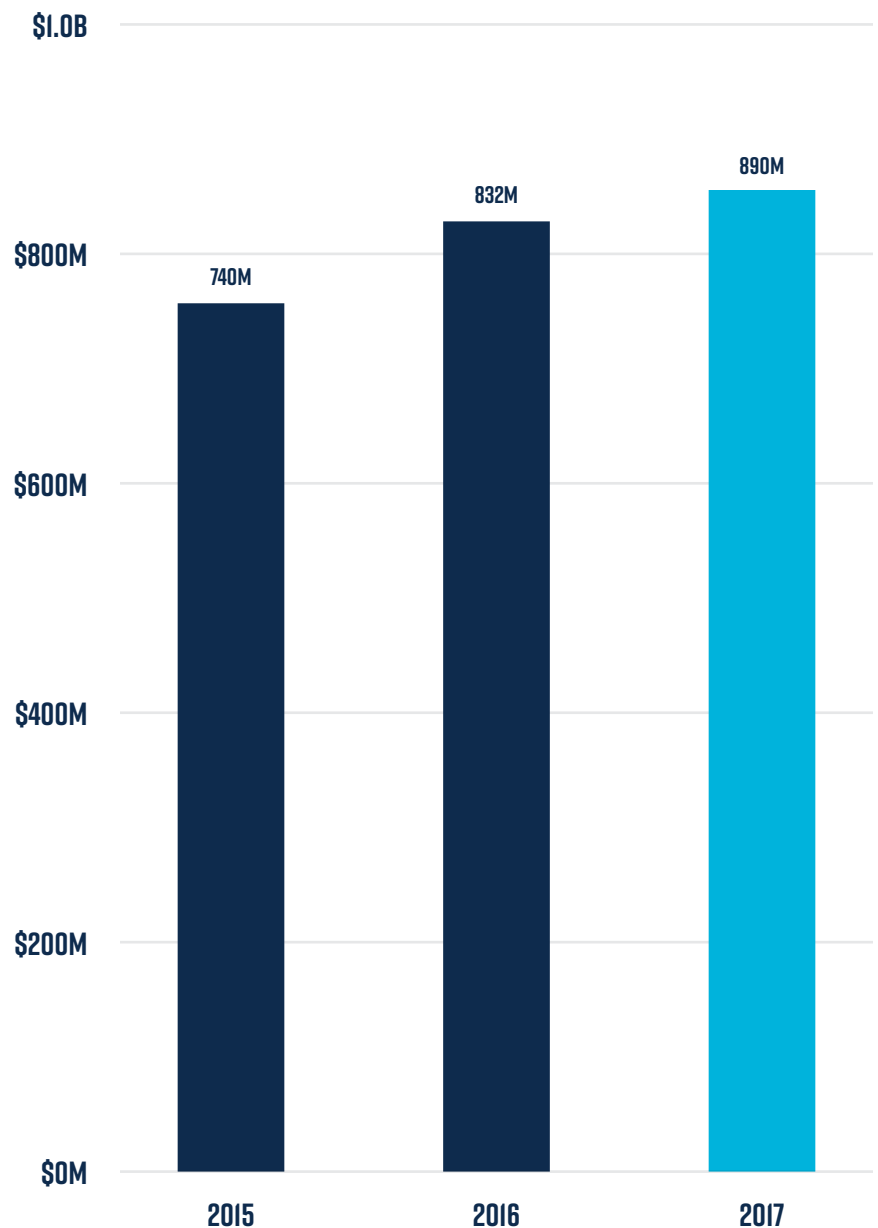
This report analyzes exports of goods only (both manufactured and raw materials), rather than goods and services. State-level economic data on exports of services are not available from existing government datasets. ² Research institutes and think tanks do offer data on state level exports of services, but the data are modeled and often have time lags. ³

Unless otherwise indicated, this report deflates export levels to 2009 ("real") dollars using the Bureau of Economic Analysis' implicit price deflator for exports of goods. By doing so, we're able to portray an accurate picture of export activity over time, controlling for inflation and other macroeconomic factors. Unadjusted values are referred to as "nominal" exports.

EDPNC'S TRACK RECORD IN PROMOTING EXPORTS

This report tracks export trends for North Carolina as a whole. But beyond statewide export trends, EDPNC staff work daily with North Carolina businesses to enter and expand their presence in foreign markets. In each of the past 3 years, EDPNC's International Trade Division has helped generate hundreds of millions of dollars in North Carolina exports. Total exports supported were \$890M in 2017, an increase of +7% from the previous year. The needs of exporting businesses are varied and industry dependent. EDPNC is committed to helping your business increase exports through a customized approach that is designed for your target market and product type. Support offered includes financial assistance. Qualifying businesses may be eligible for STEP grants, which help reimburse travel costs to attend foreign trade shows. Other assistance includes translating marketing materials, making connections to distributors, and helping with lead generation in targeted markets. If your company is looking to grow its international sales, contact our team of trade experts at <https://edpnc.com/start-or-grow-a-business/export-assistance/contacts/>.

EXPORTS SUPPORTED BY EDPNC'S INTERNATIONAL TRADE DIVISION





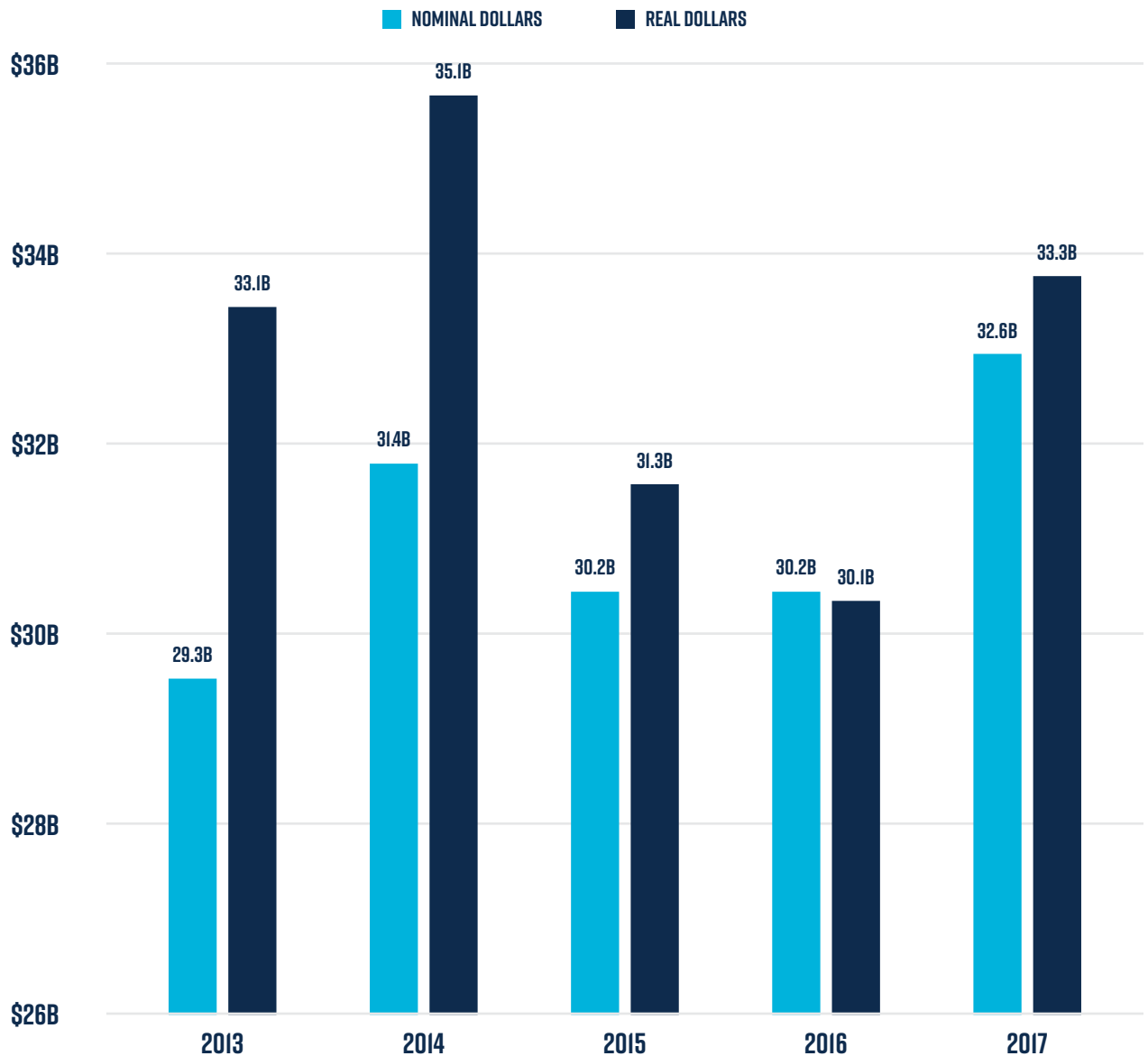
WORKING WITH THE EDPNC HAS ALLOWED US TO VISIT COUNTRIES AND MEET NEW CUSTOMERS WE WOULDN'T HAVE MET OTHERWISE. THEIR GLOBAL KNOWLEDGE AND SUPPORT FOR OUR COMPANY HAS ALLOWED US TO GROW OUR EXPORT SALES, HIRE NEW EMPLOYEES, AND INCREASE OUR CAPITAL INVESTMENT.

**EVAN MCGILL,
EXECUTIVE VICE PRESIDENT OF BUSINESS DEVELOPMENT,
KNIT-RITE**

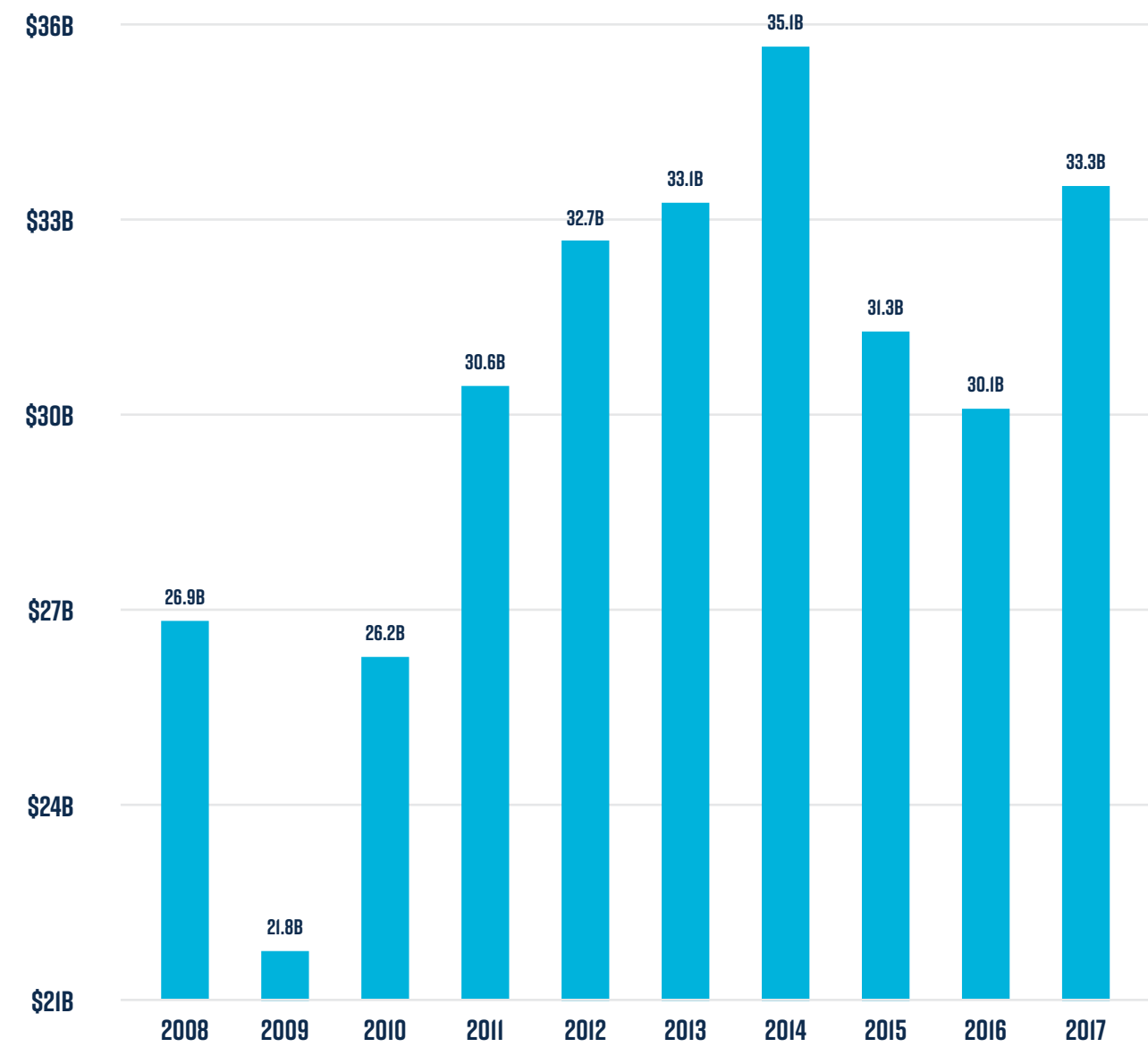
NORTH CAROLINA GOODS EXPORTS GROW TO \$33.3B

Trade winds were at the back of North Carolina businesses throughout 2017. Nearly all of North Carolina's top export markets saw economic growth while also benefiting from a depreciating dollar. Adjusted for inflation, statewide exports increased 10% to \$33.3B. This is a reversal from 2016 when export values declined in inflation-adjusted terms. North Carolina's long-term trend also remains robust and healthy: exports of goods have increased 24% in the past 10 years.

INFLATION-ADJUSTED TOTAL NORTH CAROLINA EXPORTS



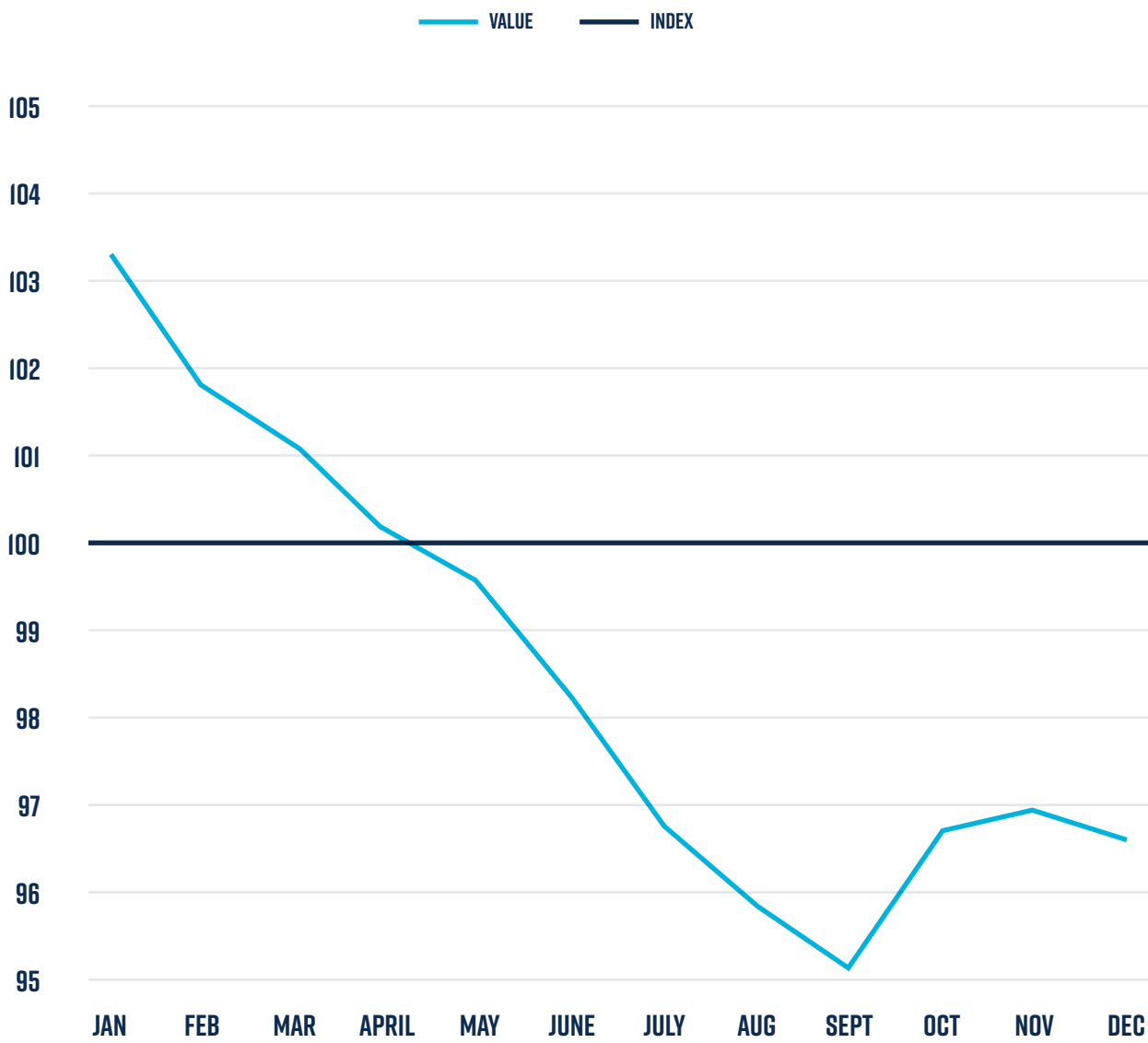
10 YEAR TREND: TOTAL NORTH CAROLINA EXPORTS



GLOBAL GROWTH AND DOLLAR DECLINE BOOST EXPORTS

North Carolina businesses that exported in 2017 benefited from a global economy which has exceeded growth expectations. The International Monetary Fund estimates global gross domestic product (GDP) growth was 3.6% in 2017 and will increase slightly to 3.7% in 2018. Across many of North Carolina’s major trade partners, growth estimates are being revised upward.⁴ Economic growth has been unevenly distributed, but broad growth across the state’s largest export markets has strengthened demand for imported goods. Concurrently, the US dollar depreciated against a wide range of currencies in 2017. Although the 4th quarter of the year saw some dollar appreciation, the value of the dollar against most foreign currencies is lower now than it was one year ago.⁵ These two forces – global growth in key markets and a depreciating dollar – have strengthened exports from US businesses.

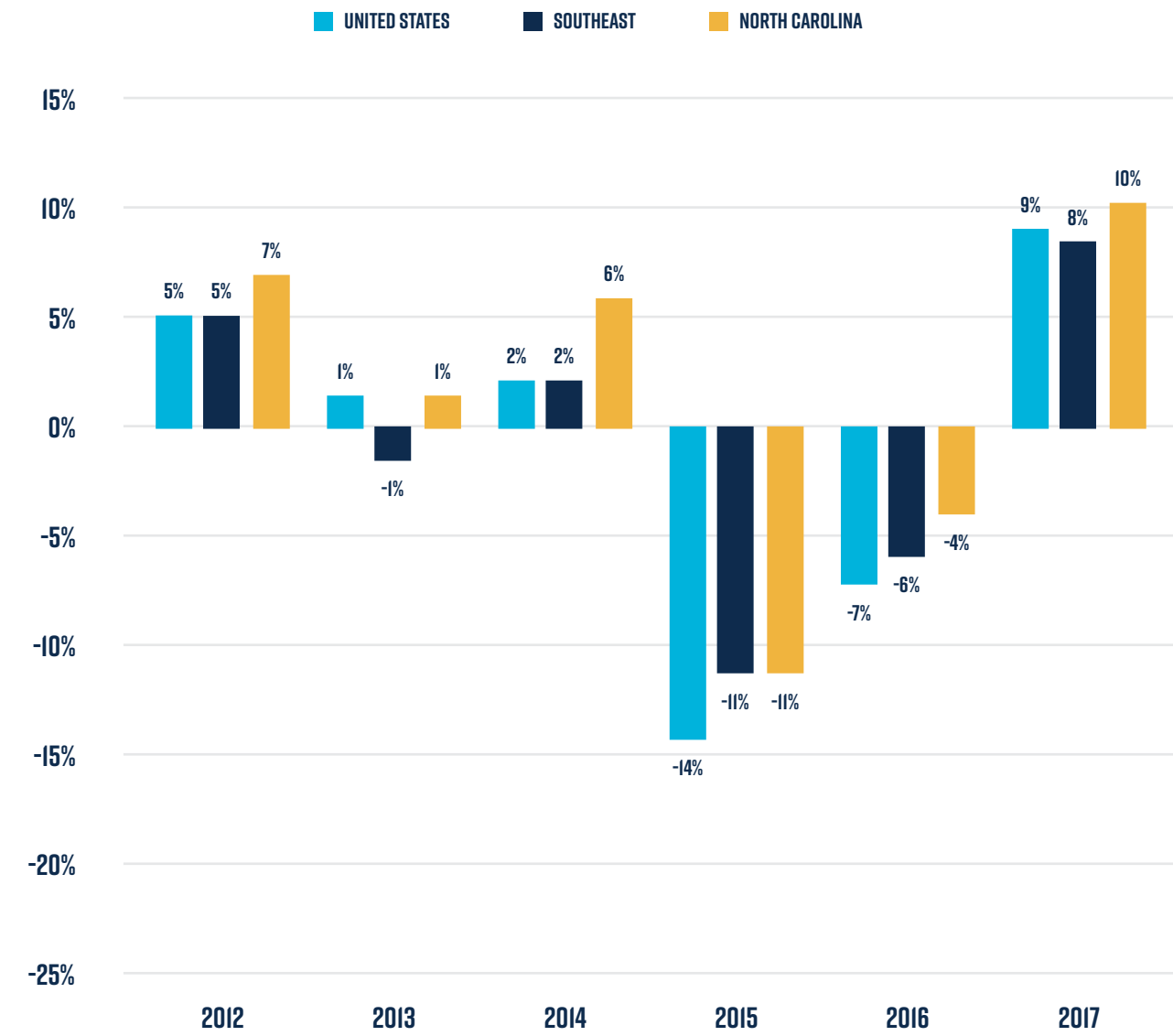
DOLLAR STRENGTH VERSUS OTHER CURRENCIES IN 2017



NORTH CAROLINA EXPORTS REBOUND

After two difficult years, 2017 saw a surge in business for North Carolina exporters. But in both good years and bad, the state’s exports have shown a remarkable level of growth and resiliency. For the past few years, statewide exports have outgrown regional and national averages. Last year state exports increased +10%, above regional (+8%) and national averages (+9%).⁶ The most severe export decline recently was 2015, where North Carolina exports dropped by 11% in inflation-adjusted terms. But this level of decline was less severe than the US average of -14%. North Carolina remains a state trade leader, ranking 10th in the nation for real export change over the past 5 years.

YEAR-OVER-YEAR PERCENT CHANGES IN EXPORTS

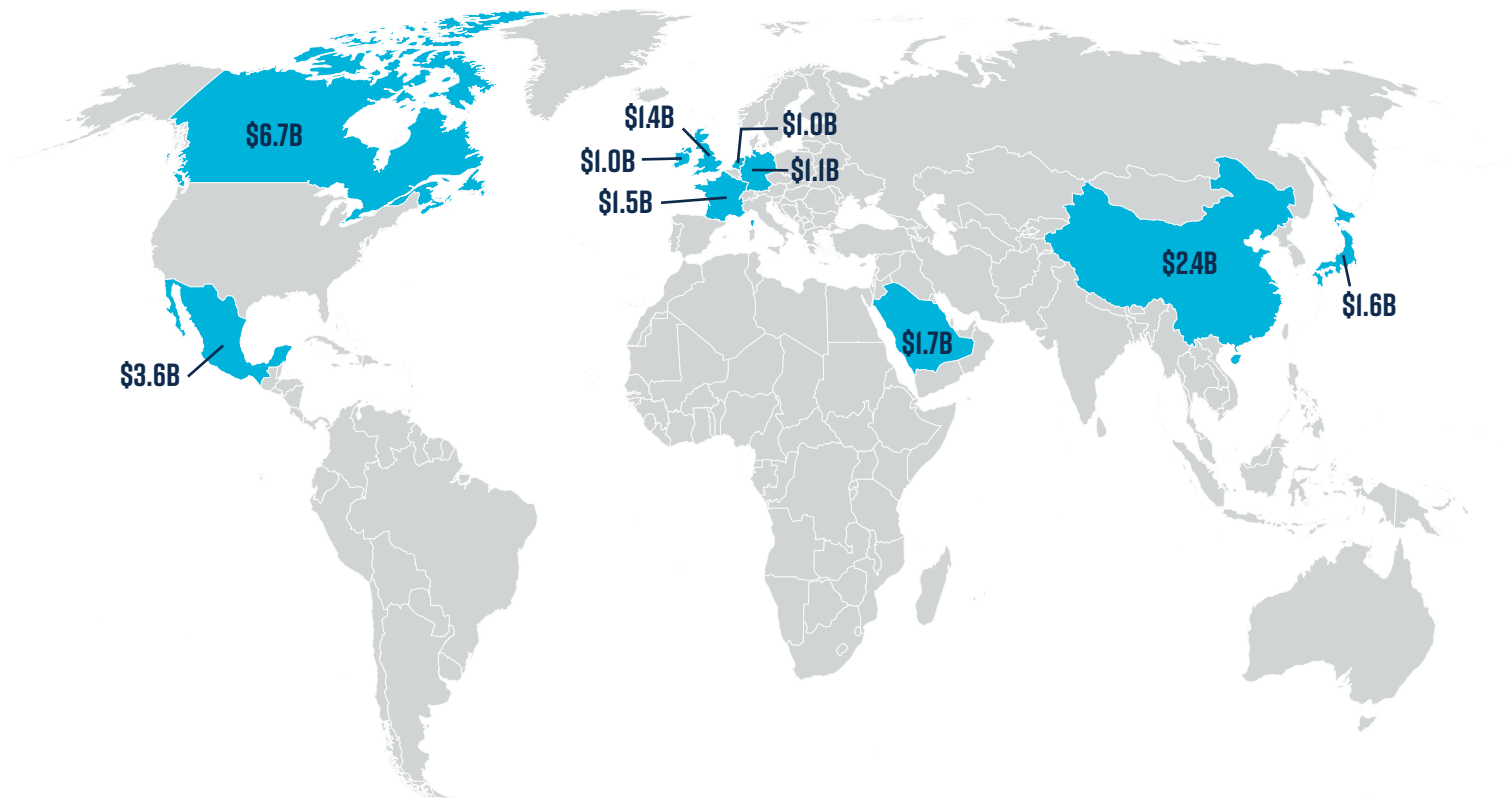


BENCHMARKING NORTH CAROLINA'S EXPORTS

This map and table show North Carolina's top ten export markets in 2017 by the total value of goods exported. North Carolina is then ranked against other states in the southeast region and nationally by (1) total export value and (2) exports per capita (the value of all exports divided by the state's population). For example, Canada is North Carolina's largest export market by total value. Across all the states in the southeastern region, North Carolina ranks third for total exports and seventh for exports per capita to Canadian markets. Nationally, North Carolina businesses are ranked twelfth for total exports and twenty fifth for exports per capita to Canada.

Historically, North Carolina's top trade markets have been geographically diverse – and that trend continued in 2017. With top markets across multiple regions, North Carolina's total trade activity is somewhat insulated from regional political conflict and economic problems. This data also highlights countries where North Carolina has a notably strong export market. North Carolina's trade relationship with Saudi Arabia continues to be exceptionally strong. Exports of arms and ammunition continue to ensure North Carolina is a top state for exports to this region. Due to a surge in pharmaceutical exports, Ireland has also emerged as a strong market for North Carolina businesses.

NORTH CAROLINA'S TOP MARKETS SPAN THE GLOBE



COMPARATIVE STATE RANKINGS OF NORTH CAROLINA'S TOP 10 EXPORT MARKETS

COUNTRY	TOTAL EXPORT VALUE SE REGIONAL RANKING (10 STATES)	EXPORTS PER CAPITA SE REGIONAL RANKING (10 STATES)	TOTAL EXPORT VALUE NATL RANKING (50 STATES & DC)	EXPORTS PER CAPITA NATL RANKING (50 STATES & DC)
CANADA	#3	#7	#12	#25
MEXICO	#3	#6	#12	#24
CHINA	#6	#8	#16	#29
SAUDI ARABIA	#1	#1	#3	#3
JAPAN	#3	#4	#13	#22
FRANCE	#2	#2	#7	#8
UNITED KINGDOM	#4	#4	#14	#20
GERMANY	#5	#7	#16	#30
IRELAND	#1	#1	#3	#5
NETHERLANDS	#5	#6	#15	#21

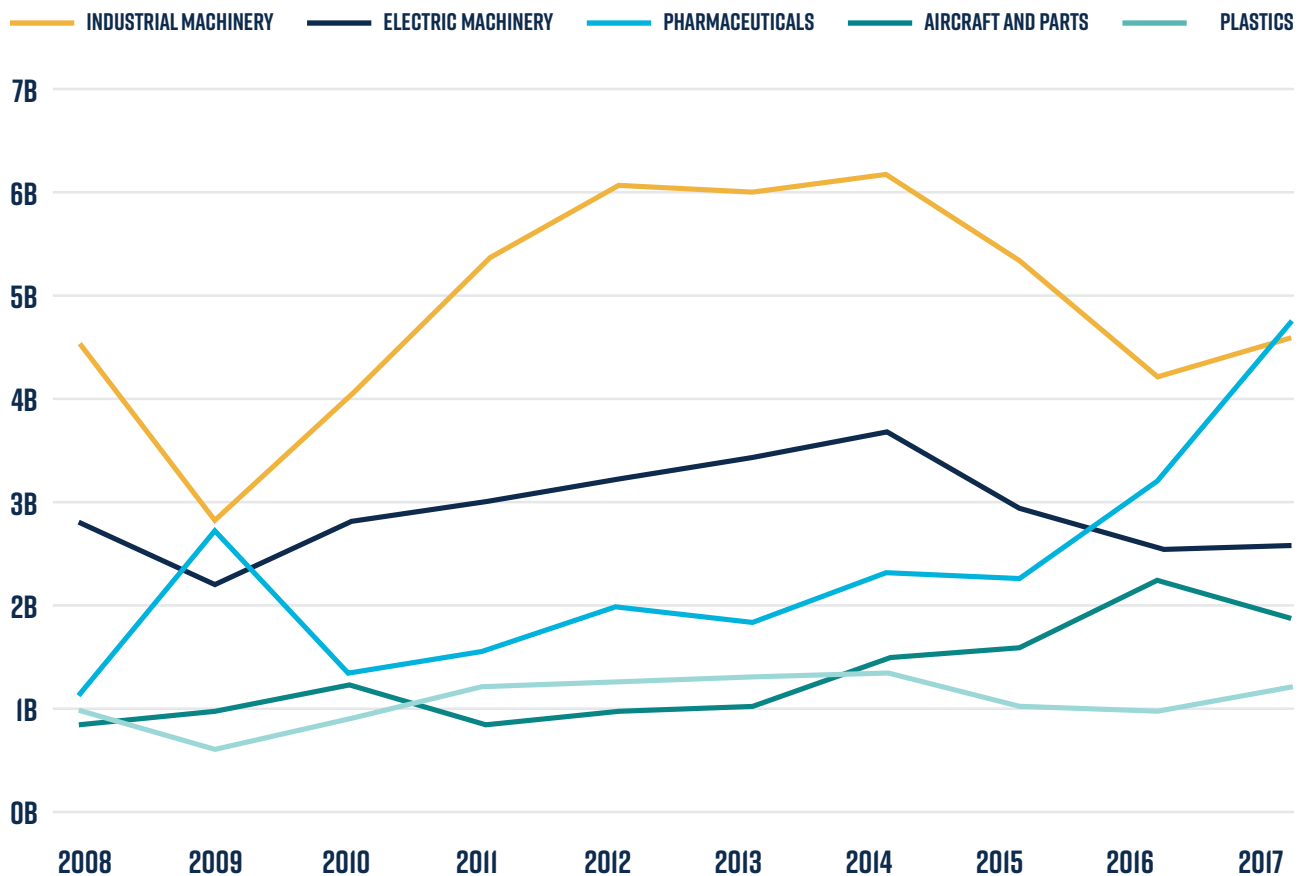
TOP 10 EXPORT MARKET SUMMARY (HS)

COUNTRY	2017 EXPORTS	1 YEAR % CHANGE	5 YEAR % CHANGE	10 YEAR % CHANGE	TOP 2 DIGIT HS CODE
1- CANADA	6.7B	5%	-11%	8%	INDUSTRIAL MACHINERY
2- MEXICO	3.6B	21%	19%	90%	INDUSTRIAL MACHINERY
3- CHINA	2.4B	11%	-21%	16%	ELECTRIC MACHINERY
4- SAUDI ARABIA	1.7B	6%	89%	397%	ARMS & AMMUNITION
5- JAPAN	1.6B	4%	-15%	-13%	PHARMACEUTICALS
6- FRANCE	1.5B	25%	31%	37%	AIRCRAFT & PARTS
7- UNITED KINGDOM	1.4B	-5%	36%	23%	PHARMACEUTICALS
8- GERMANY	1.1B	14%	1%	2%	PHARMACEUTICALS
9- IRELAND	1.0B	127%	251%	499%	PHARMACEUTICALS
10- NETHERLANDS	1.0B	26%	18%	-2%	PHARMACEUTICALS

NORTH CAROLINA'S TOP EXPORTS BY COMMODITY CATEGORY

In the past 10 years, North Carolina's top five export commodities have played an increasingly important role in the state's overall export profile. Industrial machinery, pharmaceuticals, electric machinery, aircraft, and plastics made up 42% of North Carolina's total exports in 2008. As of 2017, that share had increased to 48%. New in the past year, plastics commodities rose to become a top 5 export commodity for the state, surpassing exports of vehicles. The value of plastic exports increased 18% in 2017, while the value of vehicle exports declined 10%. Generally, all of North Carolina's other top commodity categories saw some growth in 2017. Pharmaceuticals (+43%) continued to surge, reflective of a steady and consistent long-term growth pattern. Exports grew across industrial machinery (+8%) and electric machinery (+2%), but declined for aircraft (-13%). It can be difficult to pinpoint factors behind export growth or decline for specific commodities. The declining categories (aircraft, vehicles) represent durable goods, which have long product replacement cycles. Conversely, the increase in pharmaceuticals could be due to the recent prevalence of pharmaceutical manufacturing in North Carolina's economy.

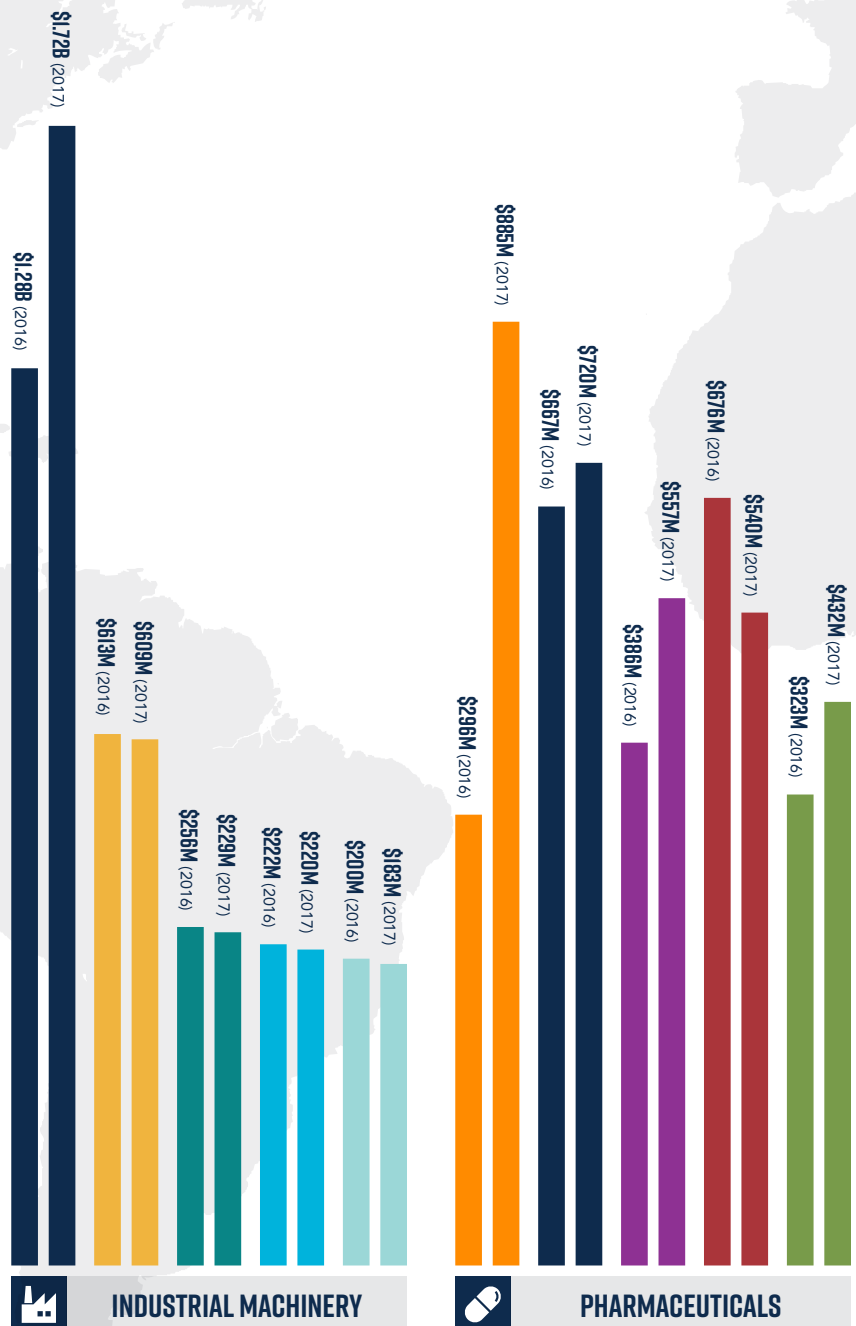
10 YEAR GROWTH OF NORTH CAROLINA'S TOP EXPORT CATEGORIES

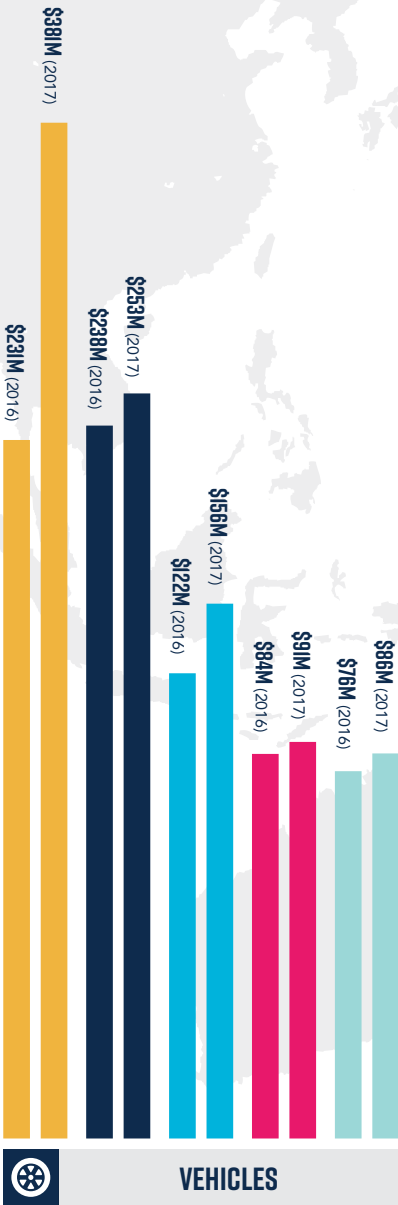
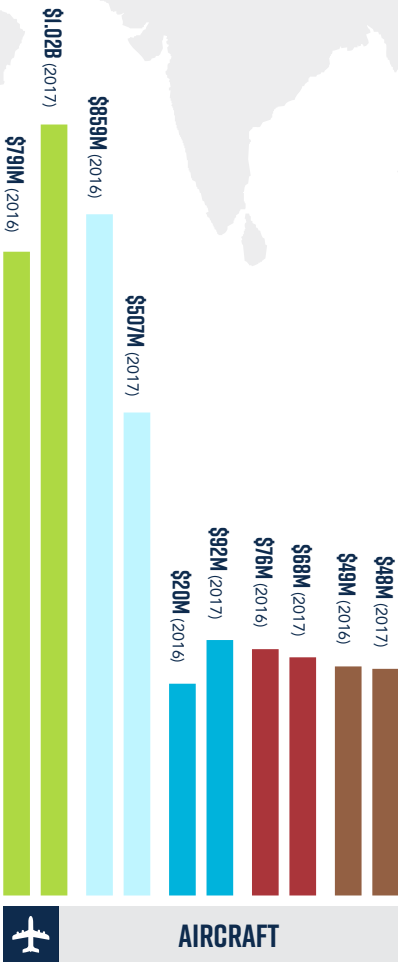
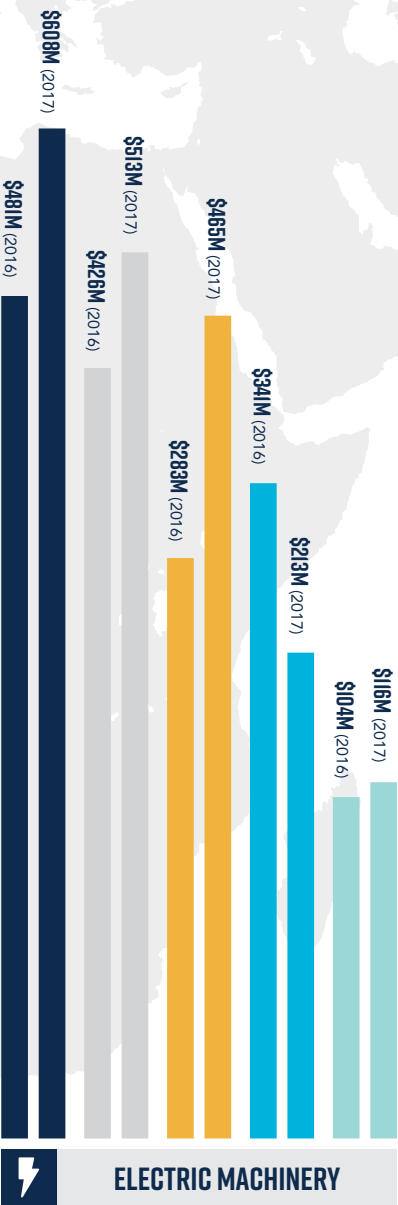




MARKET SHARE BY COUNTRY FOR TOP EXPORT CATEGORIES

One of North Carolina's competitive advantages is the diversity of its export markets. This chart shows how North Carolina's exports of top commodities go to markets around the world. Across each category (pharmaceuticals, industrial machinery, electric machinery, aircraft, and plastics), there is a notable deal of variation in terms of the destination country. As you would expect, the state's top overall export markets (Canada, Mexico, China, Saudi Arabia, and Japan) make frequent appearances here. But many other countries are also receiving North Carolina's most exported commodities.





NC EXPORT SUCCESS STORIES

Thousands of North Carolina companies export products each year. Obtaining data on the export activities of individual companies is difficult. Anecdotally, EDPNC has found companies exporting across the state in all industries. Big and small, rural and urban, it has been our experience that there is a large amount of variance in what types of companies export their products. The following companies highlight a few examples of successful North Carolina exporters. The companies highlighted here include Bio-Pro in Hickory, Advanced Detection Technologies in Mooresville, and Saltwash® in Wilmington. These companies are brand leaders in their respective product areas, but they all vary in size and industry. EDPNC is proud to have played a small role in helping these companies grow their export business. Our International Trade Team has assisted hundreds of businesses like those featured here – a number that is growing each year.

BIO-PRO RESEARCH IN HICKORY: ODOR & STAIN REMOVAL

ASSISTED BY EDPNC STAFF INCLUDING PAUL WYATT, INTERNATIONAL TRADE MANAGER

North Carolina's exports of miscellaneous chemical products increased to almost \$1B in 2017. That is partly due to chemical industry leaders like Bio-Pro Research. Manufacturing in Hickory, Bio-Pro specializes in products that remove stains and reduce odors. One of the company's competitive advantages is the safety of its chemical products – many product lines are environmentally friendly and USDA Certified Bio-Based. From coffee and wine stain removal to general cleaners, Bio-Pro has 214 product lines that meet the stain removal needs of industry and consumers. Bio-Pro's most respected brand, Urine Off, is a global leader in sanitary and safe body fluid removal. Bio-Pro products are used in 84 countries around the world in industries like elder care, pet care, and commercial aircraft maintenance. The company ships many of its products through North Carolina's Port of Wilmington.

EDPNC has been a proud partner in helping Bio-Pro export chemical products to the global marketplace. The company's export sales have grown to comprise about 50% of sales and 30% of profits. In recent years, company representatives have attended key trade shows like Iberzoo, ProPet, and Zoomark. These shows resulted in 22 leads and a signed a distributor agreement. As a result, Bio-Pro estimates their exports will increase \$100,000 in the next 18 months. Trade show attendance will help the company to enter and expand its market presence in European Union countries like Spain and Portugal. Bio-Pro's participation in trade shows was partially supported by STEP, a federal grant program administered by EDPNC. Beyond financial support, EDPNC also helped the company translate marketing materials into Mandarin Chinese. CEO Bill Haldey says Bio-Pro is expanding quickly in China, where a rising middle class has helped fuel demand for quality goods.

For Bio-Pro, the costs of exporting are offset by increases in sales volume. The company's export sales have led to 9 new full-time jobs and numerous part-time positions at its Hickory facility. Foreign demand has also resulted in hundreds of thousands of dollars in capital investment across the company's North Carolina operations. According to company CEO Bill Hadley, exporting has allowed the company to provide steady work for employees and justify upgrading equipment. "The programs funded by EDPNC make it financially possible for small businesses like Bio-Pro to project our 'Made in NC' products into a global market. Without the assistance of these programs, exporting would be much more challenging and present barriers many companies would not consider tackling alone. With the aid of EDPNC, we expect our foreign sales to grow considerably in 2018."



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ADVANCED DETECTION TECHNOLOGY IN MOORESVILLE: DEFENSE

**ASSISTED BY EDPNC STAFF INCLUDING KULDIP WASSON,
INTERNATIONAL TRADE MANAGER**

Global demand for defense products has surged in the past few years. Last year, North Carolina businesses exported hundreds of millions of security-related materials to markets around the world. One leading innovator in the industry is Mooresville's Advanced Detection Technology. Founded in 2003, the company specializes in the engineering and manufacturing of under vehicle inspection systems. Advanced Detection's products have received wide recognition, including American Security Today's 2017 Platinum Award for Best Under Vehicle Surveillance System. The company's products are technically complex and are designed by a team of electrical, software, and mechanical engineers. Designed and manufactured in the US, Advanced Detection products allow security personnel to easily and safely check vehicle undercarriages for explosives. The company currently employs 17 people in North Carolina and sells product both domestically and abroad.

In foreign markets, Advanced Detection has seen particularly robust sales throughout the Middle East. Several years ago, the company expanded its market presence in this area through attending a Qatar tradeshow. In recent years, the company has received assistance for trade show travel through STEP grant funds. STEP funds helped Advanced Detection participate in EDPNC's booth at the InterSec 2017 show in Dubai. The Intersec show is the leading international fair for companies in the protection and security industry. Attendance at shows with EDPNC support has helped the company grow its export business. "It is extremely important for me to personally meet with our existing partners and potential clients face-to-face" says Michael Dondiego, the company's Director of International Sales. "Exhibiting at InterSec has yielded tremendous international growth and solidified our reputation as a global leader in our industry. We look forward to continuing our success through the valuable platform that EDPNC's STEP program provides us."

About half of Advanced Detection's sales come from exports. Beyond growing in the Middle East Markets, the company has also seen sales in other regions like Australia and Russia. Export activity is a key part of Advanced Detection's reason for growing in North Carolina. As a result of attending trade shows, "Our North Carolina office has expanded its manufacturing capability and created new jobs," says Dondiego. As foreign market demand increases for security products, Advanced Detection Technology will continue to represent a vibrant part of North Carolina's export economy. EDPNC has been proud to play a small role in helping the company expand and grow its North Carolina presence through exports.



SALTWASH® IN WILMINGTON: ORGANIC PAINT ADDITIVES

ASSISTED BY EDPNC STAFF LIZ ISLEY,
INTERNATIONAL TRADE MANAGER

Invented in 2010 by Jaime and Carol Hunter, Saltwash® is an easy to use, organic paint additive. The Hunters, living with the sea at their doorstep, used the time-worn, painted look of seaside cottages as their inspiration. Their main goal was to have a product that gives a sun and salt air-kissed look, while also being quick and easy to use. In just over a year, the company grew to include over 200 retailers across the United States and Canada. The high demand for the product prompted the Hunters to seek distribution channels outside of the United States; however, finding funding to help develop these channels, proved to be a challenge. That's when they turned to EDPNC for assistance.

EDPNC has worked with Saltwash to establish distribution channels throughout Canada and the European Union and attend various trade events all over the world. Carol and Jaime note, "major trade events are not only very costly, but the logistics are terrifying and require many man hours, both of which we and most small businesses are in short supply of." EDPNC was able to assist by providing expertise and funding assistance to travel to 100% Design in London. Saltwash® utilized STEP funding to attend the event. At the event they were able to sign contracts establishing their presence in the UK, Ireland, Italy, and Poland.

Partnership with EDPNC and the STEP program has helped Saltwash® leverage its capabilities to appeal to a broader, more international market. According to the Hunters, "It has opened up many opportunities that we never expected. The grants and guidance from EDPNC have made these opportunities possible." Many new businesses lack knowledge pertaining to international trade, and STEP allowed Saltwash® to take part in export education classes that would have previously been too expensive to attend. The additional capabilities to offer brochures and labels in different languages have helped the Hunters export their material more effectively by mitigating language barriers to foreign markets that have the potential to slow or cancel deals. The Hunters assert that, "Without the funding and support for these various opportunities and services, we would not have advanced as quickly or as assuredly as a company to where we are today."



North Carolina



NC'S TOP COUNTRIES FOR EXPORTERS

The following pages give a broad summary of North Carolina's top 5 countries for exports. Each country profile has three sections. The trade and economic outlook gives a brief overview of macroeconomic and geopolitical factors for the market in 2018. To the extent data are available, we also highlight any currency or export forecasts. Each country also includes a short case study, outlining how a North Carolina exporter has been successful in the market. Finally, we include a few tips from EDPNC staff on things to keep in mind when exporting to the country. These profiles are not meant to provide detailed information on the trade relationship between the country and North Carolina. However, they can provide a high-level overview for businesses interested in learning more about the target country. For more information about trade opportunities in any of these areas, please contact EDPNC's trade team.





COUNTRY PROFILE: CANADA

TOP CATEGORY:
INDUSTRIAL MACHINERY

\$6.7B
TOTAL EXPORTS

+5%
GROWTH

20%
NORTH CAROLINA
EXPORT MARKET SHARE



TRADE AND ECONOMIC OUTLOOK: LOONIE APPRECIATION BOOSTS EXPORTS

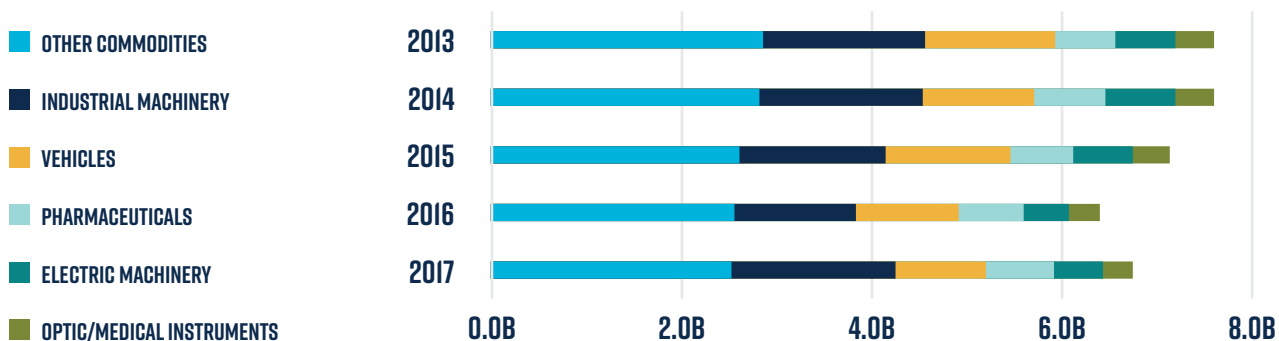
Exports into Canada from all countries are expected to grow 3.6% in 2018.⁷ That level of growth is relatively low – ranking Canada 29 out of 36 Organization for Economic Cooperation and Development (OECD) countries.⁸ However, strong economic ties between the US and Canada ensure a strong trade relationship for the foreseeable future. Trade forecasts project the largest source of goods and services exports to Canada will be the US through 2030.⁹ North Carolina's export profile is closely aligned with Canadian market sectors that are expected to see continued growth. For example, the largest export

growth areas for Canadian markets are projected to be machinery and transport equipment. These two sectors are consistently the largest North Carolina exports to Canada by total value.

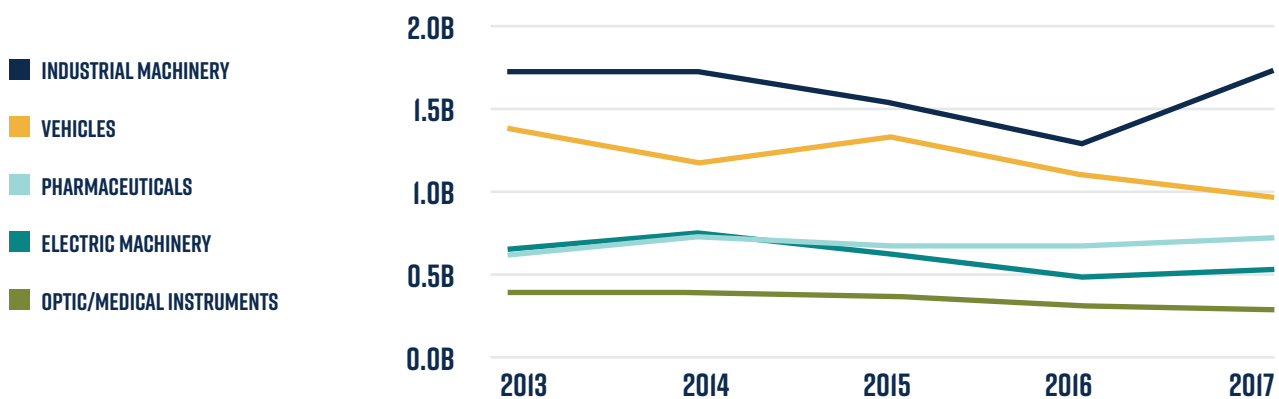
Over the course 2017, the value of the US dollar declined almost 7% against the Canadian dollar.¹⁰ Exchange rates remained steady through June, but began to fall between July and December of last year. Forecasts on the value of Canadian currency suggest exchange rates will remain steady or see a slight decline through 2018.¹¹ Factors which might

increase exchange volatility include commodity price increases and changes to trade agreements like NAFTA.¹² At a macroeconomic level, Canada's gross domestic product (GDP) is expected to grow 2.1% in 2018. This is a notable decline from a 3.0% estimated growth rate in 2017.¹³ While sluggish GDP growth is expected to continue through 2020, such rates are near average for countries with advanced economies. Surveys of Canadian business sentiment remain positive despite this slower growth, which should increase demand for goods from other countries.¹⁴

TOP NORTH CAROLINA EXPORT CATEGORIES TO CANADA



ANNUAL GROWTH IN NORTH CAROLINA'S TOP EXPORTS TO CANADA



NC SPOTLIGHT: ROLL-TECH MOLDING PRODUCTS IN HICKORY

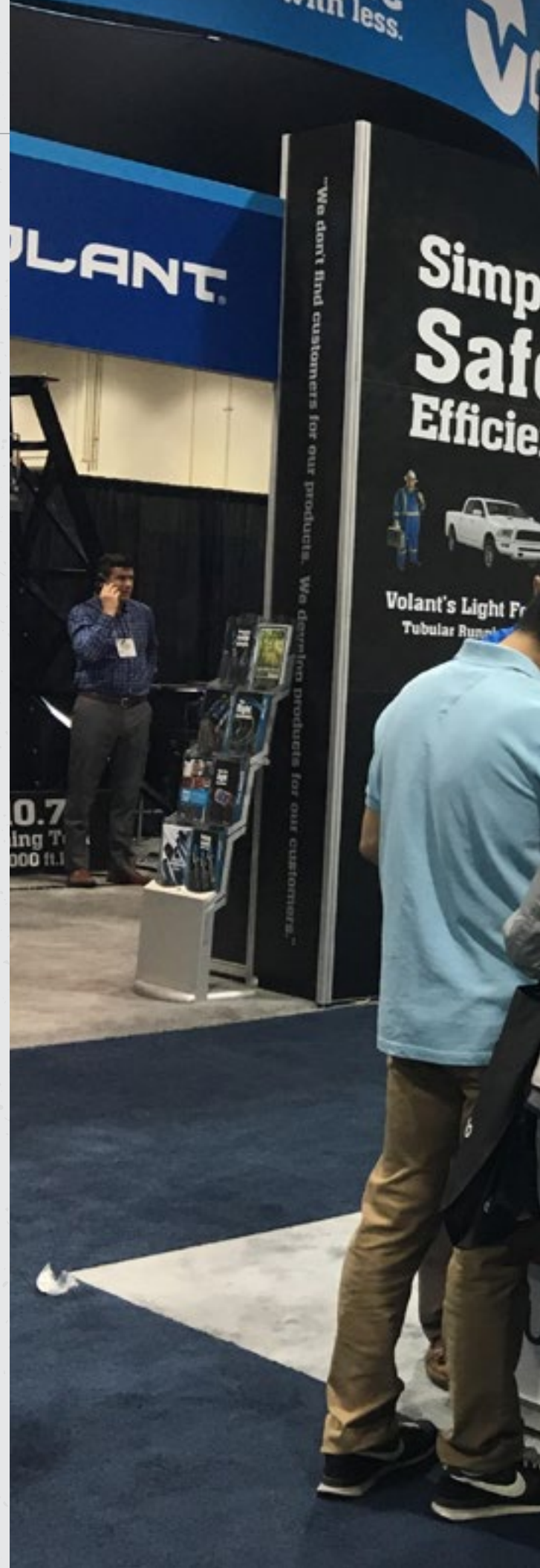
ASSISTED BY EDPNC STAFF INCLUDING LIZ ISLEY, INTERNATIONAL TRADE MANAGER

Since 1955, Roll-Tech has been designing molded plastic and rubber products in Hickory. The company's culture is strongly rooted in environmental sustainability. Roll-Tech's competitive advantage is in using recycled raw materials to produce rubber wheels and casters for a variety of products. Representatives from the company exhibited with EDPNC staff at Waste Expo New Orleans in 2017. The company's attendance at the show was partially reimbursed by STEP, a EDPNC-administered federal grant program. By participating in the trade show, Roll-Tech employees had exposure to hundreds of foreign buyers that were previously vetted by the US Department of Commerce. According to Roll-Tech CEO Patrice Bertrand, the company has recently made major expansions into Canadian markets. "We have been able to grow our business in Canada by working with EDPNC. The STEP program has allowed us to translate marketing materials for our overseas customers and to exhibit at trade events."

THINGS TO KEEP IN MIND WHEN EXPORTING TO CANADA

TIPS FROM NANCY WARD, DIRECTOR OF EDPNC'S CANADA TRADE OFFICE

- **Finding Your Market:** Canada is a mature market. This means your company will need to carefully target marketing efforts for export products. All marketing materials should clearly spell out your competitive advantage and value proposition. Marketing should include participation on Canadian social media platforms.
- **Top Trade Shows:** Canada offers an array of trade shows in leading North Carolina commodity export areas. Top shows include SIAL (May, Montreal) for food and beverage manufacturing, the Global Petroleum Show (June, Calgary) for oil and gas products, and the Manufacturing Technology Show (September-October, Toronto).
- **Political and Legal Context:** When operating in Quebec, keep in mind that the province operates under a French civil code of law. The rest of Canada uses a British common law approach. It's also important to know Canadian politics operates in the context of a diverse immigrant population. For example, over 50% of Toronto's citizens are immigrants from outside the country.
- **Cultural Considerations:** Canada is a bilingual country. Most retail products (especially food) require bilingual packaging in both English and French. Demographically, Canadian consumers are generally older (17% of population is over 65). That increases demand for age-related products and services. Most Canadian consumers are also geographically close to domestic markets – over 80% of Canadian consumers live within 200 miles of the US border. Thus, many Canadians have exposure to US cultural forces.



Economic Development Partnership of North Carolina

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...its
- ...Run-Times
- ...Banks, High / Low Levels,
...Levels
- ...Rain and Creeks

- ...er Quality / Chemical Levels
- ...temperatures
- ...Time Data
- ...Daily / Monthly



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COUNTRY PROFILE: MEXICO

TOP CATEGORY:
INDUSTRIAL MACHINERY

\$3.6B
TOTAL EXPORTS

+5%
GROWTH

11%
NORTH CAROLINA
EXPORT MARKET SHARE



TRADE AND ECONOMIC OUTLOOK: GROWTH DECLINES AMID NAFTA CONCERNS

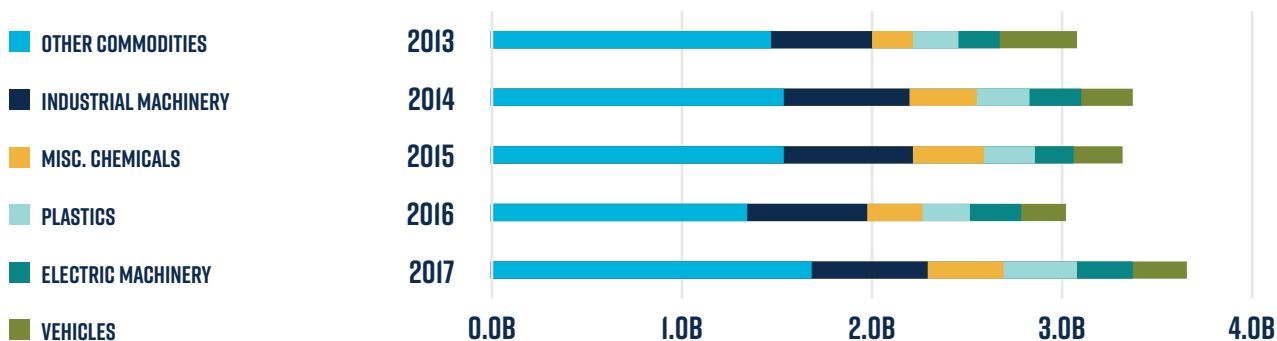
Export activity into Mexico is projected to see a sharp decrease in 2018. The OECD projects export growth from all countries into Mexican markets will fall from 6.1% in 2017 to 2.3% in 2018.¹⁵ While most Group of Twenty (G-20) countries are projected to see a decline in exports this year, the decrease in trade growth projected for Mexico is notable. Although export activity appears to slow in 2018, forecasts also show an uptick to 3.8% growth in 2019. Inconsistent growth forecasts are largely attributed to difficulties with projecting trade in a country with limited capacity to control or absorb international economic

shocks.¹⁶ Mexico has always been a prominent trade partner with the US in general and North Carolina specifically. That status was cemented with the passage of NAFTA over two decades ago. However, opportunities for future export growth will largely depend on the outcome of NAFTA renegotiations.

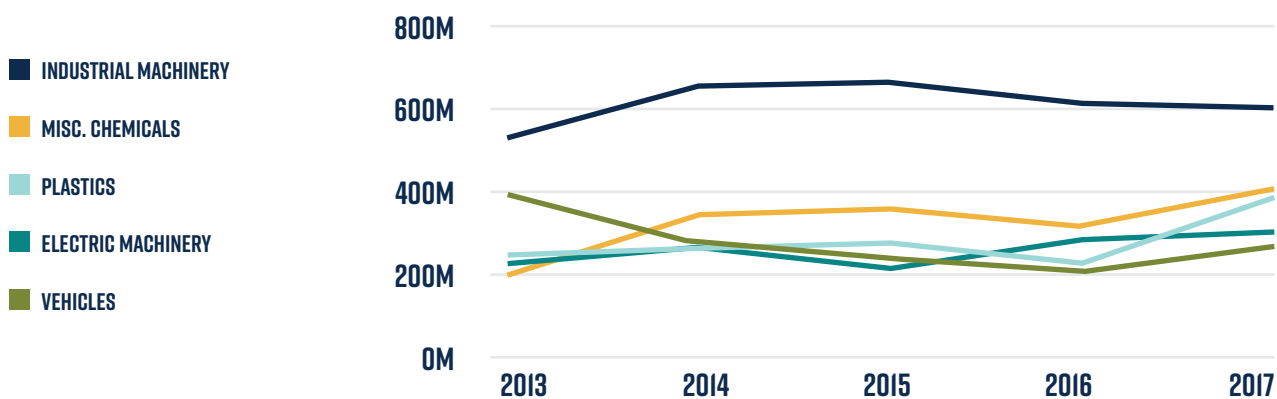
Between January and December of 2017, the US dollar declined against the Mexican peso by -5.6%. The largest period of depreciation was from January to September, which saw a decline in exchange rates from \$20.74 MXN/\$1.00 USD to \$17.49/\$1.00 USD. The last quarter

of 2017 saw some appreciation, but foreign exchange forecasts predict further appreciation is unlikely.¹⁷ Similar to trade growth, Mexico's economy is expected to slow in 2018 but grow more quickly in subsequent years. The International Monetary Fund (IMF) has forecast a decline in economic output growth from 2.1% in 2017 to 1.9% in 2018. However, subsequent years are expected to see economic growth increase to 2.7% on an annualized basis by 2020. Long-term growth is supported by surveys of Mexican business leaders, which show 80% have a positive outlook on the country's business climate.¹⁸

TOP NORTH CAROLINA EXPORT CATEGORIES TO MEXICO



ANNUAL GROWTH IN NORTH CAROLINA'S TOP EXPORTS TO MEXICO



NC SPOTLIGHT: FINTRONX IN RALEIGH

ASSISTED BY EDPNC STAFF INCLUDING KULDIP WASSON, INTERNATIONAL TRADE MANAGER

Headquartered in Raleigh, North Carolina, Fintronx LLC is the innovation leader in custom turnkey solutions for complex, retro-fit LED Lighting and Lighting Control System projects. For over a decade, Fintronx has partnered with industry leading companies and municipalities to deliver cutting-edge LED lighting technology. In July 2017, senior executives from Fintronx visited Mexico City where EDPNC arranged several business meetings for them. The Mexico business development trip was extremely successful for Fintronx. The company also participated in the EDPNC booth at the International Security Fair in Bogota, Colombia. There they met with prospective clients and developed sales leads and insights which can potentially turn into large orders.





THINGS TO KEEP IN MIND WHEN EXPORTING TO MEXICO

TIPS FROM LAURA CAMBEROS DE PEREIRA, DIRECTOR OF EDPNC'S MEXICO TRADE OFFICE

- **Finding Your Market:** It is important to find an appropriate agent or distributor when exporting to Mexico. Larger companies should consider hiring trade representatives in multiple Mexican cities to broaden distribution networks. To the extent possible, exclusive national agreements should be avoided.
- **Top Trade Shows:** Some of the top shows related to growing commodity areas for North Carolina are: Expo Mueble (February, Guadalajara) for Furniture, Expo Farma (April, Mexico City) for Pharmaceuticals, and Expo Transporte (November, Guadalajara) for the transportation industry.
- **Political and Legal Context:** NAFTA's renegotiation may result in the rise of protectionist policy, which could severely alter trade growth outlooks. Domestically, Mexico will have a Presidential election in 2018, which is also something to follow.
- **Cultural Considerations:** Personal relationships and personal appearances are very important in Mexico, as the country has a formal attitude to business. Punctuality is also important for business meetings – though things like meeting length are expected to be flexible.

COUNTRY PROFILE: CHINA

TOP CATEGORY:
ELECTRICAL MACHINERY

\$2.4B
TOTAL EXPORTS

+11%
GROWTH

7%
NORTH CAROLINA
EXPORT MARKET SHARE

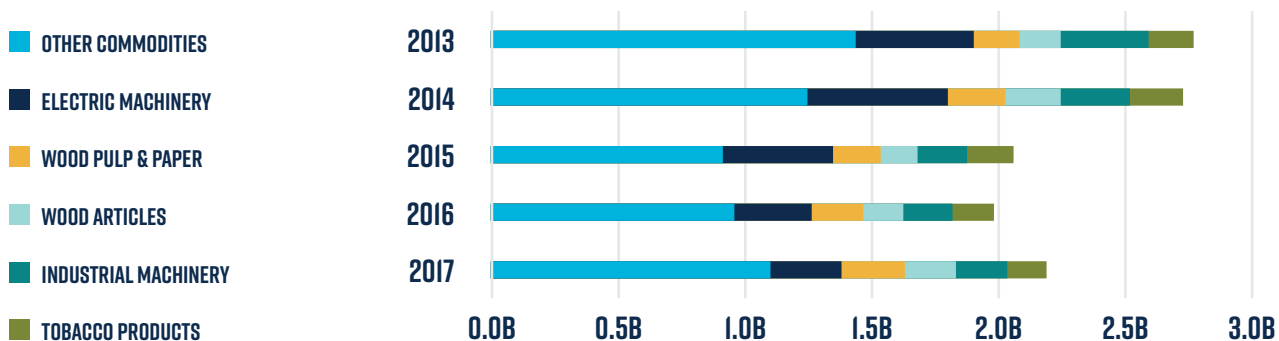


TRADE AND ECONOMIC OUTLOOK: CENTRAL BANK POLICY SHAPES TRADE

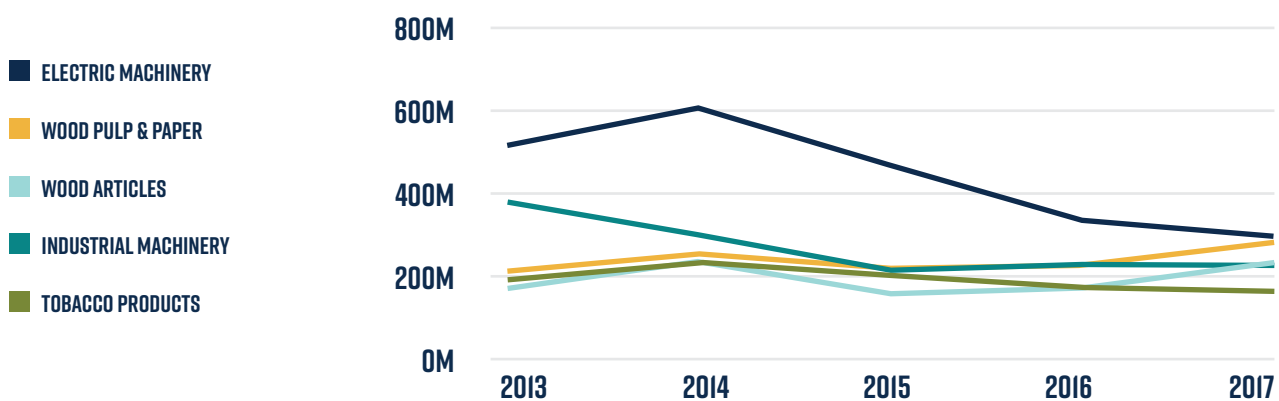
Over the past few decades, North Carolina businesses have exported an increasingly large amount of goods to Chinese markets. Both now and for the foreseeable future, the country will remain the state's largest trade market in Asia. Business confidence was boosted last year by the promise of new market access for US exporters, which resulted from a May 2017 trade agreement between the two countries.¹⁹ Despite an improving US-China relationship, forecasts show a decline in global exports to China through 2018. The OCED projects a decline in export growth into China from 6.4% in 2017 to 3.8% in 2018.²⁰ This level of growth ranks China as 9th among G20 countries for the next year. Exports into China are expected to see a slight uptick to 4.0% annualized growth in 2019. On balance, the data would suggest lower but steady export growth into China for the next few years.

The value of the dollar declined a notable -6.7% against the Chinese yuan through 2017.²¹ The bulk of the decline occurred between January and September of last year. This decline has been linked to a deliberate policy change by China's central bank, which altered the mechanism for how the yuan's daily reference rate is set against the dollar.²² After a long period of engaging in policy which tended to depreciate the yuan's value, this reversal is a potential boon for US exporters. The reason for the alteration in central bank policy is unclear. Some analysts have argued the change is a reaction to both Moody's and the S&P downgrading China's sovereign debt rating in May and September.²³ These credit downgrades are reflective of more broader concerns about slowing growth in the Chinese economy. The IMF projects a gradual decline in China's annual GDP growth from 6.8% in 2017 to 5.8% in 2022.²⁴ Although growth is slowing, positive Chinese business sentiment actually increased in the last quarter of 2017.²⁵

TOP NORTH CAROLINA EXPORT CATEGORIES TO CHINA



ANNUAL GROWTH IN NORTH CAROLINA'S TOP EXPORTS TO CHINA



NC SPOTLIGHT: KOOKS HEADERS AND EXHAUST IN STATESVILLE

ASSISTED BY EDPNC STAFF INCLUDING BLAKE JACKMAN, INTERNATIONAL TRADE MANAGER

Located in Statesville, Kooks Headers and Exhaust is a market leader performance vehicle aftermarket parts. The company specializes in producing customized exhaust products for performance and late-model vehicles. International demand for car accessories continues to expand, especially in countries with a growing middle class. Kooks expanded its presence in Asian markets by attending the China Auto Salon Trade Show in Shanghai. "We were able to establish new distributors and retail connections while increasing our understanding of the market," says Jack Tese, Kooks International Business Manager. "We plan on making new products specifically for China and growing sales there exponentially." Travel reimbursement for two employees to participate in the Auto Salon show was provided by a STEP grant, which is administered by EDPNC.

THINGS TO KEEP IN MIND WHEN EXPORTING TO CHINA

TIPS FROM ANNABEL RONG, DIRECTOR OF EDPNC'S CHINA TRADE OFFICE

- Finding Your Market:** China has over 1.3 billion residents, making it the second largest economy in the world and a leading market for consumer goods. This means export market opportunities are vast and crosscutting across different industry sectors. Due to China's demographics, a few sectors should see outsized growth in the near future. Sectors to keep in mind include medical products (aging population) and consumer aviation (rising middle class).
- Top Trade Shows:** China is home to major international shows that routinely get more than 100k+ visitors. Navigating these kinds of shows can be daunting, but EDPNC staff can help you through the process (including help with follow-ups). Some key shows to consider are the China International Furniture Fairs (Guangzhou in March and Shanghai in September), the China International Optoelectronic Exhibition (Shenzhen, September), and Shanghaitex (Shanghai, November).
- Political and Legal Context:** China operates on a common law legal system and the country's Communist Party dominates the political system. For some time, the Party's goal has been to balance a socialist political system with a vibrant capitalist marketplace. The government can play a pivotal role for exporters, especially when it involves state-owned industries like power.
- Cultural Considerations:** There can be notable culture differences between how US-based and China-based companies conduct business. Building trust is important, so companies should work with professionals who know the cultural nuances of both markets. Like other Asian markets, patience is important – the sales cycle here can take longer than in US markets.





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COUNTRY PROFILE: SAUDI ARABIA

TOP CATEGORY:
ARMS AND AMMUNITION

\$1.7B
TOTAL EXPORTS

+6%
GROWTH

5%
NORTH CAROLINA
EXPORT MARKET SHARE

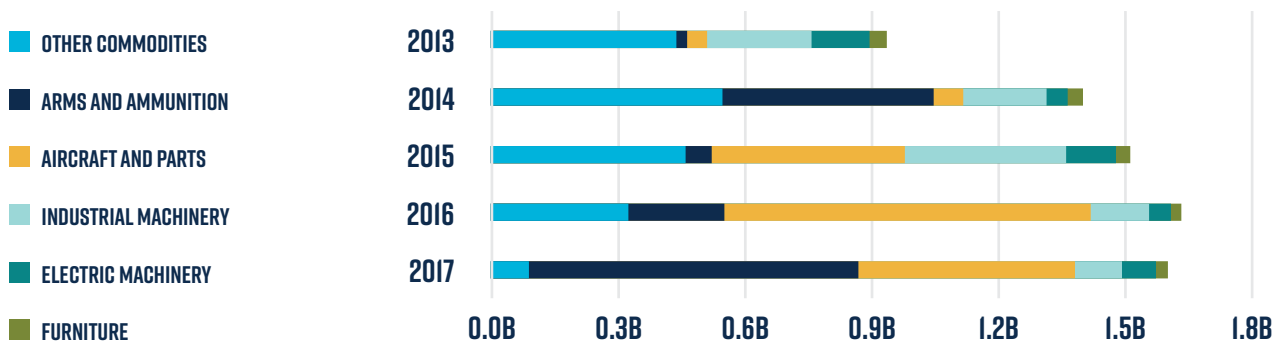


TRADE AND ECONOMIC OUTLOOK: EXPORTS RESILIENT DESPITE LOW COMMODITY PRICES

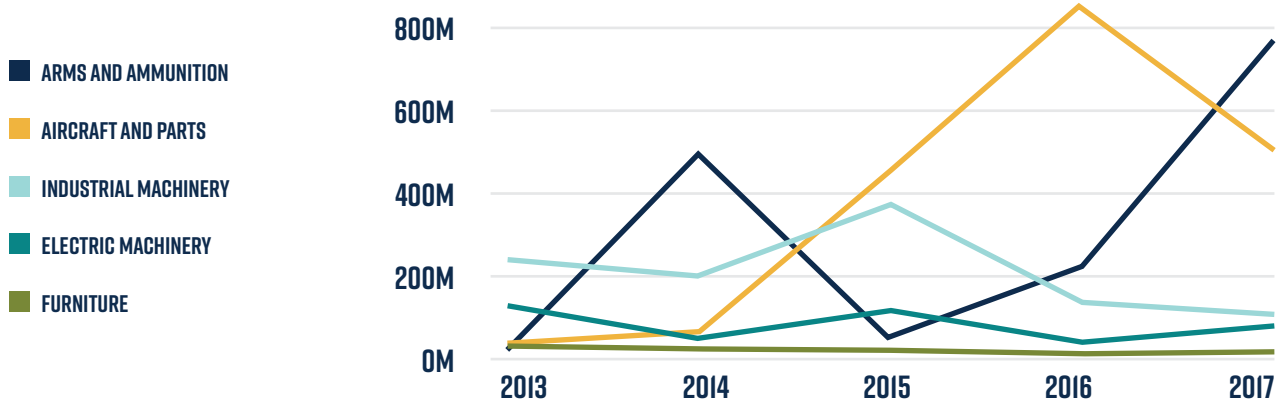
North Carolina exports to Saudi Arabia have surged in the past few years. Just two years ago, the country became the state's 4th largest export market (replacing Japan). Saudi Arabia's place as a major market was reinforced in 2017 with a large (+240%) increase in arms and ammunition exports. Development organizations issue limited trade forecasts for Saudi Arabia, so there is little information available on estimated trade trends for 2018. In general, research suggests that domestic demand in the Kingdom is highly correlated with the price of oil.²⁶ Since 2014, the persistent low price of oil has caused the country to engage in austerity measures which may have slowed export activity. But as oil prices have started a slow rebound, there is evidence of expansionary fiscal policy ahead. The Kingdom's recently released budget projects oil revenue will rise from 440B riyals in 2017 to 492B riyals in 2018.²⁷

Saudi Arabia's riyal is pegged to the US dollar at a rate of \$3.75 dollars per riyal. The Saudi Arabian Monetary Authority recently reaffirmed the peg, citing it as a way of ensuring currency stability.²⁸ In terms of growth, the country's economic output has been severely stunted by low oil prices. IMF forecasts estimate the Kingdom's total economic output will grow 1.1% in 2018.²⁹ But this level of growth is much better than last year's 0.1% estimated GDP growth rate. Over the long-term, the growth of Saudi Arabia is expected to be much improved as the country becomes less reliant on oil exports. Positive long-term outlooks are reflected in sentiment surveys, which show 70% of US businesses view the Kingdom as important to their worldwide revenues.³⁰ As the Kingdom begins to embrace expansive plans to diversify its economic base, opportunities for North Carolina exporters will continue to grow.

TOP NORTH CAROLINA EXPORT CATEGORIES TO SAUDI ARABIA



ANNUAL GROWTH IN NORTH CAROLINA'S TOP EXPORTS TO SAUDI ARABIA



NC SPOTLIGHT: MATTHEWS SPECIALITY VEHICLES IN GREENSBORO

Greensboro-based Matthews Specialty Vehicles designs, engineers, and builds purpose-built specialty vehicles for applications such as public safety, education and mobile healthcare. Over the last five years, the company has experienced 30 to 50 percent growth in sales and recent sales in the Middle East are part of that growth. To help tap into that promising market, Matthews partnered with EDPNC's international trade division to receive federal funds that covered travel costs to exhibit at Arab Health in 2016 and 2017. The travel reimbursement came through a STEP grant, administered by EDPNC.

During the 2016 Arab Health Show, the company met with U.S. Commercial Service officers based in Saudi Arabia and the UAE. "It was a learning experience," Global Services Director Dennis Hoag said. "You meet with them to understand each country's specific needs, and how they recommend doing business in each country." Since that show U.S. Commercial Service specialists have helped Matthews vet potential foreign agents for its products. "They've made sure that we're talking to legitimate people," Hoag said. Critical introductions were also part of Arab Health in 2017, where Matthews collected 32 new business leads. Matthews' export successes have included bloodmobile deals with Aramco, the national oil company of Saudi Arabia.



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USA



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New technology
that replaces
broken liquid
diagnostics.

Safe

THE
COMP

le S
C Test
Cell Disord





THINGS TO KEEP IN MIND WHEN EXPORTING TO SAUDI ARABIA

TIPS FROM ANNE JAFERY, EDPNC'S MIDDLE EAST TRADE REPRESENTATIVE

• **Finding Your Market:** Saudi Arabia (and other countries in the region) are continuing to diversify away from oil and gas commodities. This creates a unique opportunity for North Carolina companies wanting to engage in public-private partnerships. A starting point in understanding the opportunity is the Kingdom's Vision 2030 document.³¹

• **Top Trade Shows:** Saudi Arabia offers a large number of trade shows. But in our experience, none of them compare in size and scope to shows offered in the United Arab Emirates (a neighboring country). We've found exhibiting in neighboring countries still results in market access to Saudi Arabia. EDPNC can help you target the appropriate venue.

• **Political and Legal Context:** Saudi Arabia is a member of the Gulf Cooperation Council (GCC). GCC countries will introduce a 5% Value Added Tax (VAT) in 2018.³² Saudi Arabia and the United Arab Emirates are among the first to introduce the VAT, but other GCC countries will follow before end of this year. At this time, the impact of the VAT on trade and broader economic markets is unclear.

• **Cultural Considerations:** In both Saudi Arabia specifically and the Middle East more broadly, there is a great deal of importance placed on personal relationships. For that reason, the first step to exporting in this market is identifying and vetting an in-country distributor. Laws generally favor the local company in the region, and thus having a good personal relationship with and doing due diligence on distributors is vital.

COUNTRY PROFILE: JAPAN

TOP CATEGORY:
PHARMACEUTICALS

\$1.6B
TOTAL EXPORTS

+4%
GROWTH

5%
NORTH CAROLINA
EXPORT MARKET SHARE



TRADE AND ECONOMIC OUTLOOK: MODEST EXPORT GROWTH AHEAD

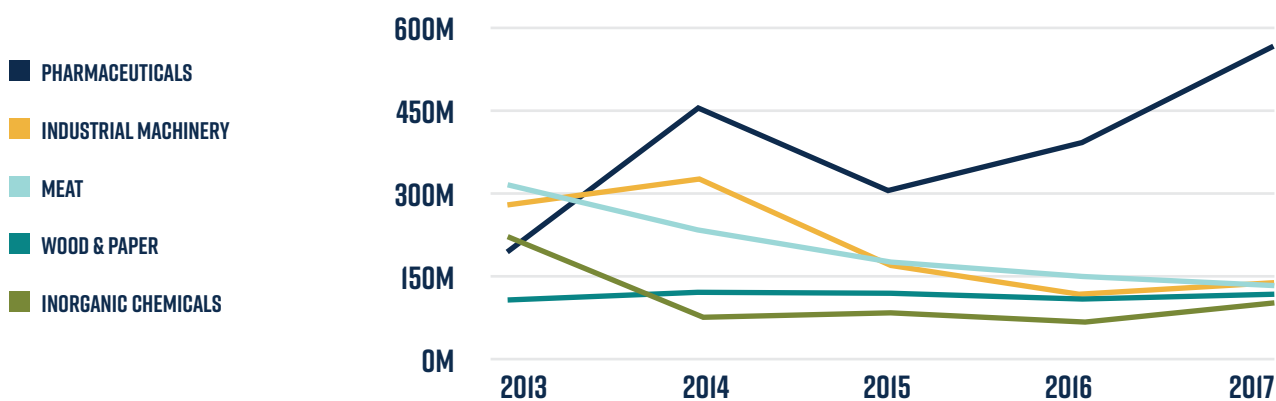
OECD forecasts predict exports into Japan from all countries will grow 1.2% on an annualized basis in 2018.³³ This is both the lowest level of growth among North Carolina's top trade markets and the lowest level of growth across all 38 OECD member countries. A 1.2% growth rate for 2018 is lower than 2017's estimated 2.5% growth rate. However, exports into the country are much improved from 2016 – which saw a decline of -2.3%. Japan's declining export market share for North Carolina could be due to a misalignment in trade profiles. For years, North Carolina's top commodity exports for Japan have been in pharmaceutical and tobacco products. But the largest area of growth for exports into Japan is transport machinery and equipment.³⁴ North Carolina's exports of other machinery into Japan have declined (both in total value and as a percent of total Japanese exports) for a few years.

Mirroring the dollar's depreciation against most major currencies, the US dollar declined -4.3% against the Japanese yen through 2017. However, fluctuations in yen exchange rates appear much more volatile compared to any other top trade market for North Carolina. Forecasts of the yen's exchange rate show conflicting trends for 2018. Some investment banks predict reversal in 2018, with the dollar appreciating slightly before the end of the year.³⁵ But others show the exact opposite – with the dollar depreciating slightly against the yen.³⁶ Fueled in part by trade and robust fiscal stimulus, Japan's economy grew by an estimated 1.5% in 2017. That is a significant improvement from previous years, where growth was 1.0%. However, development agencies predict much slower growth for the country through 2022.³⁷ Despite such predictions, Japan's businesses have a very positive economic outlook. The most recent survey of business confidence shows sentiment is at an 11-year high.³⁸

TOP NORTH CAROLINA EXPORT CATEGORIES TO JAPAN



ANNUAL GROWTH IN NORTH CAROLINA'S TOP EXPORTS TO JAPAN



NC SPOTLIGHT: FLEXCELL INTERNATIONAL IN BURLINGTON

ASSISTED BY EDPNC STAFF INCLUDING PAUL WYATT, INTERNATIONAL TRADE MANAGER

Burlington's Flexcell has manufactured scientific products for testing cell-level biochemical reactions since 1987. Flexcell products have medical applications across fields like orthopedics, cardiovascular medicine, pulmonary health, and tissue engineering research. The company has seen a great deal of export growth to Japan in recent years. Research and development spending has outpaced revenues in many Asian markets, creating increased demand for Flexcell products.³⁹ Company President Al Banes notes the company has seen an explosion in export growth. "Our specialized, dynamic bioreactor systems and cell culture products have seen an increase in sales growth within global markets specific to Europe and Asia. Our export sales have grown roughly 20% since 2011." EDPNC's international trade team has worked with Flexcell to help grow their exports. According to Dr. Al Banes, "The STEP grant is a great way for local businesses to position themselves for entry into new global markets. Our company could gain access to Japanese market intelligence with the resources provided by EDPNC. Funding allowed our team to get language translation services, attend a tradeshow, and investigate potential partners for our Biotechnology products."

THINGS TO KEEP IN MIND WHEN EXPORTING TO JAPAN

TIPS FROM SUMIO SHIBATA, DIRECTOR OF EDPNC'S JAPAN TRADE OFFICE

- **Finding Your Market:** Building business connections with buyers and distributors is important in Japan. One of the best ways to do that is in-person interactions that come from exhibiting at Japanese trade shows. Also consider reaching out to Japanese trade associations and groups that promote Japanese exports (like EDPNC), who can help you better refine your search.

- **Top Trade Shows:** Japan offers major trade shows that cover most of North Carolina's major export sectors. A few top shows to consider include Nano Tech (Tokyo, February), Electronic Components & Materials Expo (Tokyo, June), and JASIS (China, September) for measuring and testing equipment.

- **Cultural Considerations:** Japanese corporations can take a long period of time to test, evaluate, and benchmark products. That can be frustrating for American businesses who are used to a faster sales cycle. This pattern is reflective of Japanese consumers, who also take a long period of time to evaluate consumer goods. Patience is a must in this market!



LINEA

Energy Services

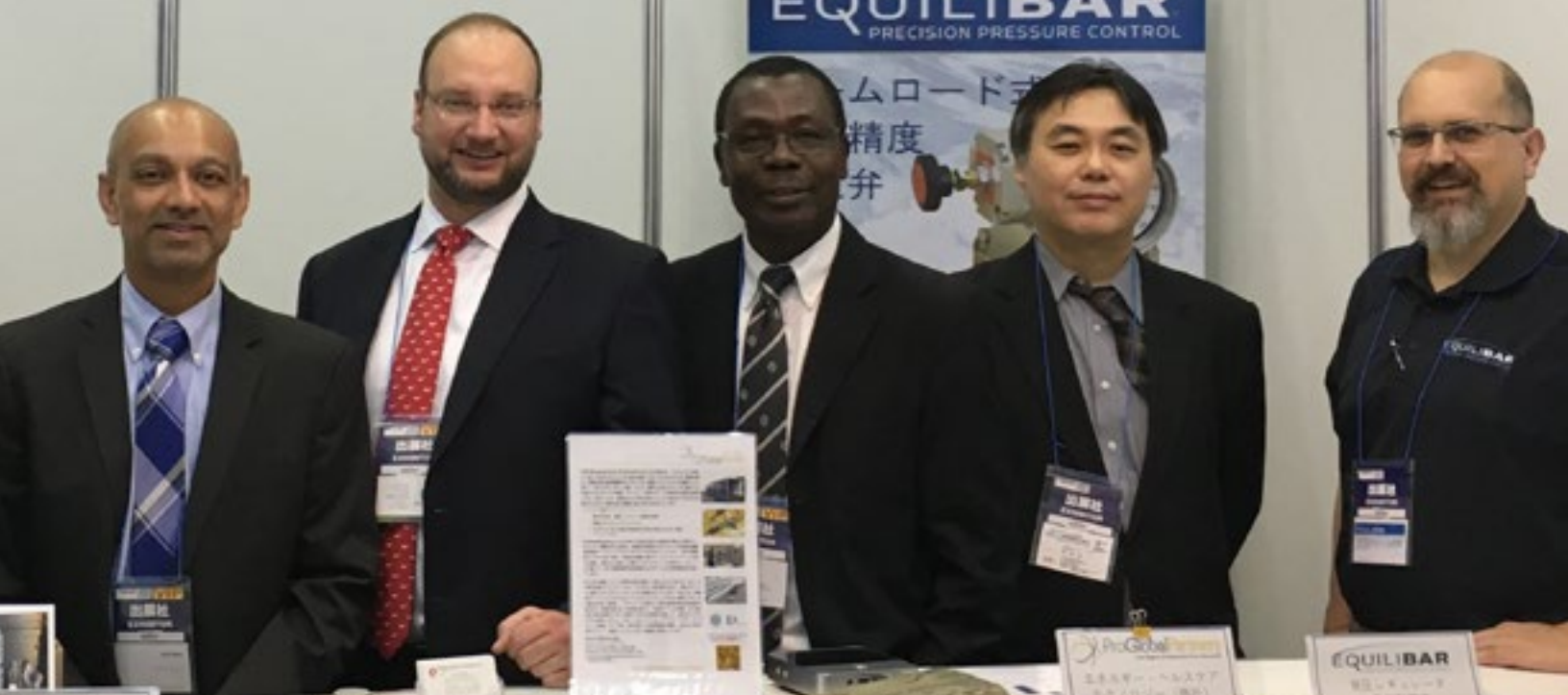
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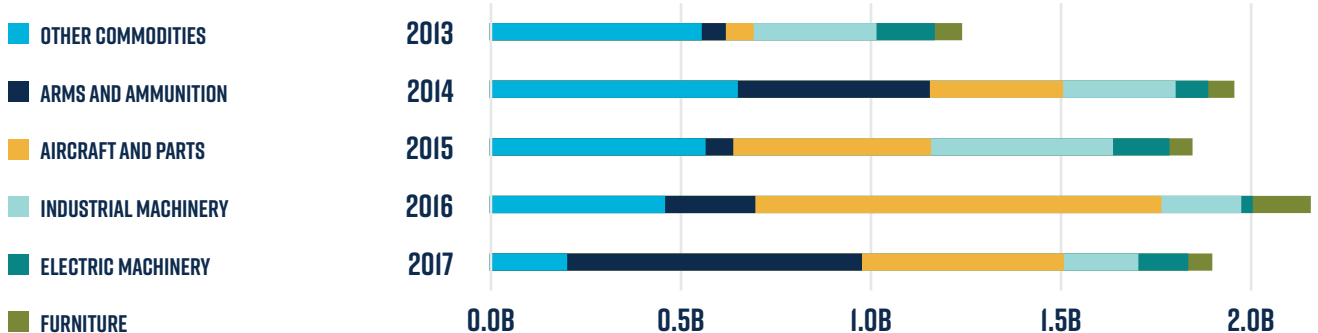
株式会社
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REGIONAL SPOTLIGHT: THE MIDDLE EAST

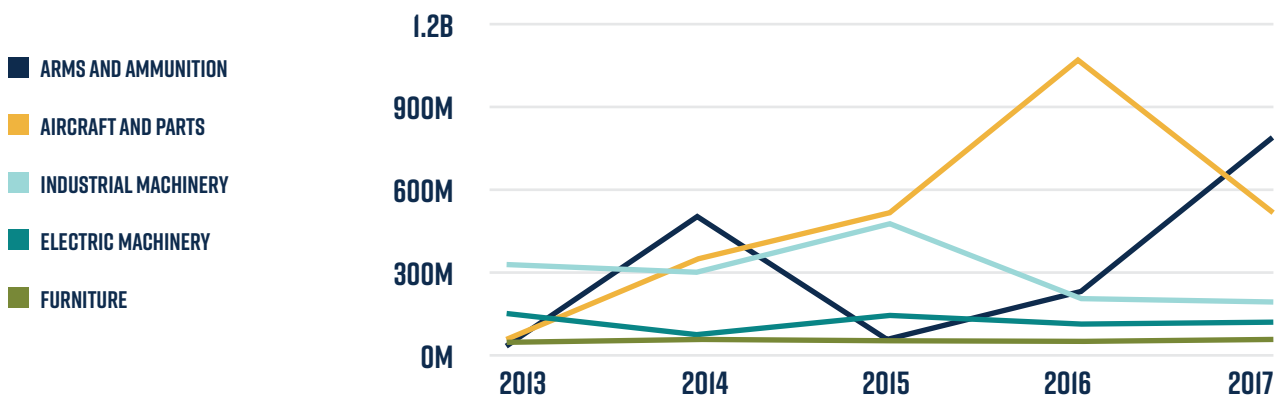
In the past decade, the Middle East has emerged as an area of growth for North Carolina exporters. Many of the countries in the region – defined as Saudi Arabia, the United Arab Emirates, Bahrain, Kuwait, Qatar, and Oman – offer developed marketplaces with surging domestic demand.⁴⁰ In the past 5 years, inflation-adjusted exports to the region increased by +53% from \$1.2BB to \$1.9B. For NC, the bulk of current export activity in the region focuses around Saudi Arabia (arms and ammunition), the United Arab Emirates (electric machinery), and Bahrain (industrial machinery). Many countries in the Middle East have economies that are linked to commodity prices. However, many governments within the region have extensive plans to reduce dependence on commodities and diversify their economic bases. Saudi Arabia's Vision 2030 plan aims to reduce the country's economic reliance on oil prices.⁴¹

The Middle East region offers long-term market opportunities for NC exporters, but there are some short-term challenges. In 2017, the region was dominated by geopolitical conflict. Despite the conflict, economic growth within the region is expected to accelerate through 2022. Average GDP growth in 2018 for the Middle East is estimated to be 2.68% for 2018, a significant improvement from growth estimate of 0.86% for 2017.⁴² Through 2022, the IMF estimates the region will continue to grow at a reasonable pace.

TOP NORTH CAROLINA EXPORT CATEGORIES TO THE MIDDLE EAST



ANNUAL GROWTH IN NORTH CAROLINA'S TOP EXPORTS TO THE MIDDLE EAST





CONCLUSIONS: NORTH CAROLINA EXPORTS SHOW STRONG RECOVERY

Fueled by steady economic growth domestically and abroad, and with the help of a depreciating dollar, 2017 was a banner year for North Carolina exporters. While 2016 brought a year of inflation-adjusted export declines, 2017 shows the promising beginnings of a recovery. However, as we've noted throughout this report, forecasting export trends is extremely challenging. While many macroeconomic factors point towards 2018 as another great year for exporters, the trend is far from certain. Like most states, the biggest risk for North Carolina's exporting businesses are geopolitical in nature. The decision to place tariffs on United States imports by the federal government may suppress trade activity, especially with major North Carolina markets like China. Additionally, about 44% of North Carolina's total export share is attributable to markets with free trade agreements (FTA).⁴³ The impact of trade agreements on exporting businesses is substantial. North Carolina's exports to countries with FTAs has grown 24% over 10 years. The overwhelming bulk of North Carolina's export growth to markets with FTAs has been to Canada and Mexico, which is largely attributable to NAFTA.

But with total inflation-adjusted exports of \$33.3B and a year-over-year increase of +10% in 2017, North Carolina continues to show a position of trade leadership. North Carolina ranks 2nd in the southeast for the percentage change in real exports in 2017. Since exports can be volatile, it is also important to consider how the state ranks over longer periods of time. Over the past 5 years, North Carolina also shows notable trade growth – ranking 3rd in the southeast and 10th nationally. Growing exports is critical for the future of North Carolina's economy. According to the Brookings Export Monitor, 373,188 North Carolina jobs are supported by the state's export activities. Jobs created by exporters come from businesses both large and small. Almost one quarter North Carolina's export values for goods come from small and medium sized businesses. As we move into 2018 and beyond, EDPNC's International Trade Division team will continue to work with exporting businesses across the state to create jobs for North Carolina residents.



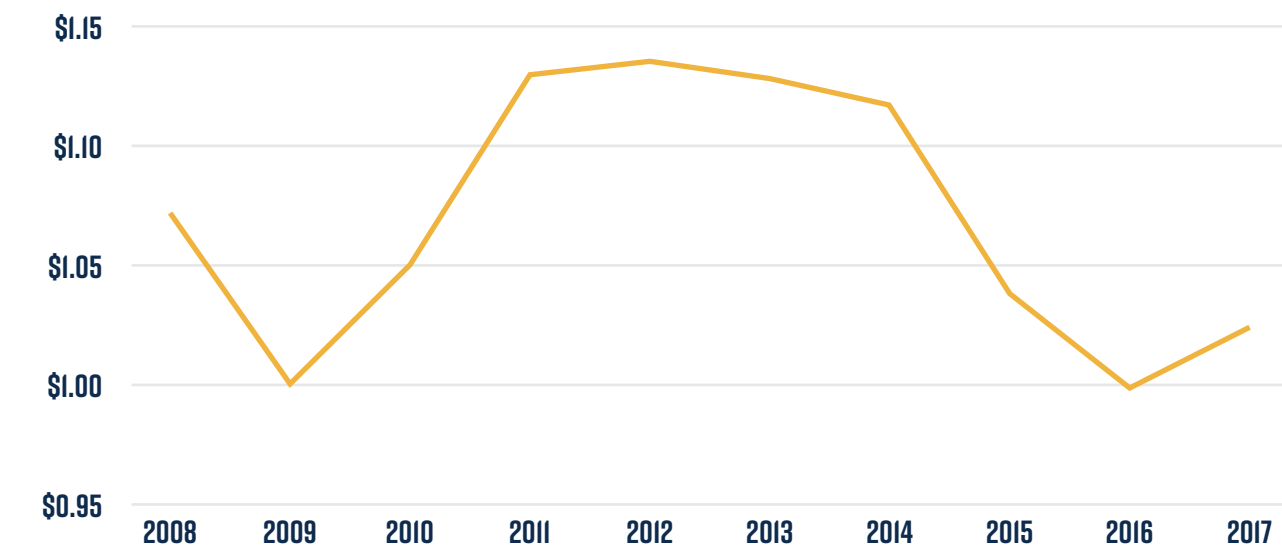
METHODOLOGY

Source: There are few sources for accurate and up-to-date data on state-level exports. Data for this report is from the Foreign Trade Statistics office of the US Census Bureau. Specifically, the values have been sourced from the Census Bureau’s origin of movement data series for state exports.⁴⁴ Data on exports is usually a trade-off between timeliness and accuracy. The origin of movement data series is timely and enables us to report on 2017 exports early on in 2018.⁴⁵ However, the data are limited because of their accuracy in how they measure exports. This data measures exports based on where goods start their journey to the port of export. Thus the data do not necessarily reflect the point of manufacturing. For example, companies which manufacture goods in North Carolina but ship through ports located in other states are not assigned as a North Carolina export. Although not without limitations, we use this data because it represents the most updated measure available for state-level exports of goods. Alternative sources use modeled data to arrive at export totals and have time lags.⁴⁶

Data Adjustments: Export dollar values have been adjusted to ensure dollar amounts can be compared across time. The data is reported in “2009 dollars,” or real dollars. If nominal values are used, they are explicitly labeled as such. This means that the export numbers for each year are expressed in terms of the equivalent value of those goods in 2009. The adjustment ensures that changes in export values from year to year reflect real value changes in exports. EDPNC has used 2009 dollars as the base year beginning with the 2016 version of this report. Previously reports used a base year equal to the year of the report (adjusting to 2015 dollars in 2015, etc.). The use of 2009 dollars moving forward will provide better comparisons across time. The base year will only change when and if the base year of the deflator data is moved forward by federal government agencies.

Our use of “real dollars” contrasts with reporting exports as “nominal dollars.” Nominal dollars are the dollar value of exports without adjustment. Nominal export values measure the dollar amount of exports at a single point in time. However, nominal values make it challenging to determine whether export increases are due to substantive trade activity or fluctuations in purchasing power. Thus, we adjust nominal export values to real export values. To express nominal export values for each year in 2009 real dollars, we adjusted export values using the Bureau of Economic Analysis’ exports price deflator.⁴⁷ This method allows us to eliminate the change in export dollar amounts caused by forces like inflation, thus making the value of the dollar equivalent across time. The deflator is applied to nominal dollars for each year, and the result is the real 2009 dollar value.

DEFLATING EXPORTS: VALUE OF \$1.00 IN 2009 DOLLARS



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- ¹² Business Development Bank of Canada (2017). 2018 Economic Outlook: Global Growth Brings Good News for Canadian Entrepreneurs.
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- ⁴⁰ The definition of what countries are included in the "Middle East" region vary by development agency. For purposes of this profile, we include those countries that have developed economies and are good potential export markets for North Carolina businesses. Our definition is substantially more limited in scope than traditional definitions of the region.
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