This report was developed by the Greater Baltimore Committee through the collaboration of political, business and civic leaders of the Baltimore Metro region. The conclusions and recommendations of this report are solely those of its authors and do not reflect the views of the Brookings Institution or JPMorgan Chase. The Brookings Institution is a private non-profit organization. Its mission is to conduct high-quality, independent research and, based on that research, to provide innovative, practical recommendations for policymakers and the public. Brookings recognizes that the value it provides is in its absolute commitment to quality, independence and impact, and makes all final determinations of its own scholarly activities in the Global Cities Initiative, including the research agenda and products.

The Global Cities Initiative (GCI) is a joint project of the Brookings Institution and JPMorgan Chase to help business and civic leaders grow their metropolitan economies by strengthening international connections and competitiveness. GCI activities include producing data and research to guide decisions, fostering practice and policy innovations, and facilitating a peer learning network. For more information, see www.brookings.edu/projects/global-cities.aspx or www.jpmorganchase.com/globalcities.

The Baltimore region, led by the Greater Baltimore Committee and other partner organizations, was accepted to participate in GCI in early 2015. A core committee of key regional leaders has led the work, which included a survey of regional businesses, in-depth interviews with a range of business owners, extensive data collection and a process to develop findings and strategies—all focused on expanding the region’s exports. A steering committee comprised of small and large businesses, educational institutions and government entities has participated in the evaluation and analysis of data and findings.

This report summarizes the state of Baltimore region’s export market and highlights key findings about opportunities to expand that market. The Baltimore Metro region is expected to issue a final GCI report, including a strategy for expanding the region’s exports, in early 2016.
The Baltimore regional economy is strong overall, anchored by major health and education institutions, one of the nation’s busiest ports, a prime Mid-Atlantic location and a strong transportation infrastructure. The region boasts a well-educated workforce and is increasingly attracting talented young people. Innovative entrepreneurship is thriving, and sectors such as advanced manufacturing and logistics are growing and creating jobs.

At the same time, regional leaders recognize the need to continue to diversify the Baltimore economy. For example, the region’s economy is fueled significantly by federal spending, which can fluctuate and lead to cyclical slow-downs.

A key step in diversifying the Baltimore economy is to look beyond the U.S. borders. In the global economy, old barriers to trade and commerce have crumbled, and regions across the country are looking to do business in the international arena. New technology is making it easier for many businesses and institutions to expand; companies and nonprofits that in the past could not conceive of themselves as exporters can now efficiently reach foreign markets with their services and products.

Data compiled by the Brookings Institution shows that the Baltimore region is lagging many other metropolitan regions in exports. Only 6.9 percent of the region’s economy stems from exports, ranking the region 90th among U.S. metropolitan areas.

Improving that number will require a concerted effort. Many businesses, large and small, in the region lack the knowledge or support they need to begin exporting or to expand their reach beyond our borders. This is a missed opportunity for the region.

This report provides an overview of where the Baltimore region stands in the export arena and compares that to cities nationwide. It also documents key findings, challenges and opportunities for the region’s businesses looking to export goods and services.

This report was created as part of the Baltimore Metro region’s participation in the Global Cities Initiative (GCI), a national project of the Brookings Institution and JPMorgan Chase to bolster regional export efforts.
A six-month review of data, surveys and interviews related to regional exporting has led to five overarching findings:

I: A LACK OF AWARENESS

The Baltimore region has strong industry sectors but many small and midsize businesses do not realize their export potential and are reluctant to enter the export market.

• In the GCI survey, more than three-quarters of respondents said they were unaware of export-related assistance programs from government or private sector. Many regional businesses say they also lack the internal capacity to expand into new markets overseas; additionally, businesses often fear regulatory, financial and logistical barriers to becoming exporters.

II: FEDERAL DEPENDENCE

The region’s historic dependence on the government sector has hindered export opportunities.

• In some cases, regulatory issues restrict export potential, while some businesses have failed to adapt and expand their products for use beyond federal government needs. Because the region has had a major dependence on federal spending there has been no urgent need to develop new international markets.

III: EXPANDING ANCHOR EXPORTS

Baltimore’s strong anchor institutions in education and healthcare are important exporters but could benefit from increased awareness of their exportable services and goods, including international business tourism and medical tourism.

• According to Brookings Export Monitor 2015, the industry comprised of education, healthcare and tourism is considered the third largest exporter (based on real exports) for the Baltimore region. In 2014, this industry was responsible for $1.25 billion in export value.

IV: RESEARCH AND DEVELOPMENT OPPORTUNITY

The Baltimore region has significant research and development activity but expansion is threatened by global competition and access to resources.

V: TARGETING INTERNATIONAL OPPORTUNITIES

Many regional companies that are currently exporting or plan to export are not focused on emerging international markets.

• India, China and other emerging Asian countries offer enormous potential for American exports, as their populations grow and economies become more mature. South America also offers potential for export growth, fueled in part by the expansion of Southwest Airlines at Baltimore/Washington International Thurgood Marshall Airport, while Canada remains a key target due to its proximity.
Baltimore Metro’s Regional Export Assessment

The Baltimore Global Cities Initiative project team has collected data, conducted interviews with businesses and collected survey responses to document current conditions in exporting. The results paint a picture of a region that has the potential to significantly expand its exporting activities.

Export Snapshot: Baltimore Metro’s Place in the U.S.

Total Export Value, 2014

$12 billion in exports of goods and services in 2014

This ranks Baltimore 28th of the largest metro regions

Annualized Export Growth:

2010-2014

1.6% Baltimore Metro Region

81 out of 100 metro regions had higher export growth

Exports as Share of GDP, 2014

<table>
<thead>
<tr>
<th>Metro</th>
<th>Share of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baton Rouge</td>
<td>31.7%</td>
</tr>
<tr>
<td>Greensboro, NC</td>
<td>17.5%</td>
</tr>
<tr>
<td>Dallas, TX</td>
<td>13.2%</td>
</tr>
<tr>
<td>Knoxville, TN</td>
<td>11.6%</td>
</tr>
<tr>
<td>Provo, UT</td>
<td>10.8%</td>
</tr>
<tr>
<td>San Diego, CA</td>
<td>10.0%</td>
</tr>
<tr>
<td>Las Vegas, NV</td>
<td>9.2%</td>
</tr>
<tr>
<td>Phoenix, AZ</td>
<td>8.9%</td>
</tr>
<tr>
<td>Albuquerque, NM</td>
<td>8.0%</td>
</tr>
<tr>
<td>Baltimore, MD</td>
<td>6.9%</td>
</tr>
</tbody>
</table>

Baltimore ranks 90th among 100 metros in percent of GDP in exports

Data Sources: Brookings Export Monitor 2015.
The Metro Region’s Exports

Top Industries for Exports
- Education
- Healthcare
- Tourism
- Information Technology
- Manufacturing

58,984 Total Supported Jobs from All Sectors

Top Current Export Markets *
- Europe
- Asia
- Canada

Top Exported Items
- Aircraft Products
- Precision Instruments
- R&D Services

Top Reasons Companies Export to Certain Markets *
- Company or contact in foreign country selected the company
- Direct sales opportunities
- Prior relationships

Perceived Export Challenges Facing Baltimore Businesses

Key Obstacles to Exporting *
- Transportation Costs: 42%
- Customs Clearance: 33%
- Knowledge of Foreign Markets: 33%
- U.S. Export Control Laws, Reg. Compliance, Licensing, Inspections, Tariffs: 31%
- Foreign Gov. Regs. and Policies: 25%

Top Reasons Companies Do Not Export *
1. Product or service cannot be exported
2. Enough business from local, state and regional markets
3. Unaware which products or services can be exported

*The Greater Baltimore Metro Export Plan Business Survey was conducted from May 5-May 29, 2015. The survey was distributed to a list of regional business contacts from all industries and across all jurisdictions in the region.
Pixelligent Technologies, located in a state-of-the-art manufacturing facility in the Holabird Business Park in East Baltimore, produces nanomaterials for solid-state lighting, flat-panel displays and other optical components. Its proprietary nanocrystal manufacturing technology is helping improve existing products by increasing light output, transparency and mechanical properties. For example, its zirconia nanocrystals significantly increase the light output of LED devices.

The company, which employs 43, has developed a network of leading customers around the globe. With one commercial contract in hand, 60 customers around the world at various stages of product acceptance and large strategic partners, Pixelligent is growing rapidly. Roughly three-quarters of its potential customers are outside the U.S., with the bulk in Asia, including South Korean and Japan. Many prospects contact Pixelligent, after hearing about its technological capabilities.

“We probably have 20 to 25 percent of our qualified leads coming in through our website and almost all of that is international,” says Craig Bandes, President and CEO. Additionally the company has established distributors and sales agents throughout Asia.

The company, re-established in 2009, has had to learn how to navigate the nuances of exporting—whether it’s dealing with new regulations imposed by foreign governments or obtaining necessary approval to use private shippers to deliver its products.

“I would say as you start to export a product you have to be knowledgeable in rules and regulations,” Bandes says. “Not only in the U.S. but also the rules and requirements about how that product gets imported into your destination.”

Pixelligent is committed to continued international expansion.

“Figuring out the export strategy often requires creating new partnerships around the world,” Bandes says. “But you need to do it to compete effectively in the global marketplace, and it can be done.”
This assessment constitutes an important first stage in the region’s efforts to expand exports. It will help the Global Cities Initiative team develop a strategy and action plan to help Baltimore businesses take the right steps to begin competing internationally.

The GCI export plan will serve as a blueprint for the region with goals of increasing awareness of export assistance programs and providing export-related training workshops targeted at small and medium businesses, especially those that are new to exporting. It will also explore ways to connect new-to-export businesses with prospective foreign business partners, one of the goals documented in the GCI survey of area businesses.

The Baltimore GCI export plan is in development and is expected to be released in early 2016. The GCI team is confident that this strategy, coupled with a commitment to action by regional leaders, can help the Baltimore region maintain its competitive edge and propel our economy forward by generating major new exporting activity.

Baltimore Global Cities Initiative Timeline

- **December 2014**: Led by Greater Baltimore Committee, Baltimore Metro Region applies to take part in Global Cities Initiative
- **January 2015**: GCI selects Baltimore and seven other cities
- **February – May 2015**: Data collection and market assessment of export activities in the Baltimore Metro Region; interviews with area businesses
- **May – July 2015**: Assessing data, survey results and interviews
- **July – September 2015**: Developing key findings from data analysis, survey results and interviews
- **September – October 2015**: Writing and releasing Market Assessment and developing goals, objectives and strategies
- **November 2015**: Writing export strategy plan
- **Early 2016**: Release of Baltimore Metro Export Trade Strategy
Acknowledgments

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