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HIGHLIGHTS

- New England economy is less reliant on foreign trade than the rest of America, making it slightly more insulated from any slowing in global demand.
- But, two states in particular

 Connecticut and Massachusetts have a high reliance on European demand
- In regards to the high-risk PI-IGS region, the majority of New England has very low exposure and the main channel in which exporters will be impacted is through movements in the greenback and slowing demand
- Prosperity of the export sector and economy is not just a function of where you ship, but also what you ship. States with exports more skewed to the technology sector Vermont and New Hampshire have seen the strongest recovery thus far in the value of exports

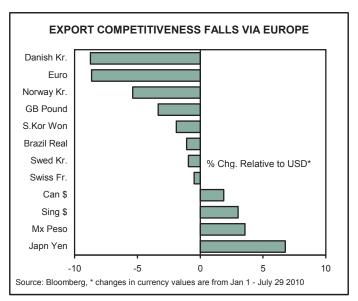
Beata Caranci AVP & Deputy Chief Economist mailto:beata.caranci@td.com

WILL EUROPE'S TROUBLES WASH UP ON NEW ENGLAND SHORES?

In this report, we explore the trade ties between international exporters within the New England states and Europe. In recent months there has been a rash of downgrades to European economic forecasts reflecting the region's sovereign debt problems and subsequent announcements of fiscal austerity measures. Exporters across America are impacted in two ways to Europe's troubles First, downgrades to European forecasts for 2010 and 2011 translate into weaker demand for American products. Second, exporters have absorbed a sudden loss in competitiveness because investors have scurried to the safety of the greenback, which caused it to appreciate substantially against the euro and other European currencies. Although some investor momentum has shifted back to the euro in recent weeks, it still remains well off its peak value and it is likely that both the euro and British pound will slide at a double-digit pace against the US dollar over the next year or so.

Although New England has lower reliance on exports as a driver of economic

growth, we found that within the region's export exposure, about one-quarter are destined for at-risk European countries - which is double the weighting of the rest of America. Those states with greater exposure to Asian and North American economies should fare better than those with European ties over the next couple of years. Higher



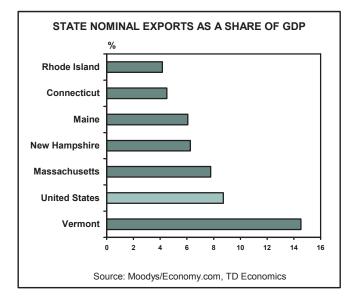
growth rates in these economies will make for more fertile export demand, and competitiveness will not erode to any great degree by sliding domestic currencies. In fact, since the start of the year, American export competitiveness has actually improved against a number of these countries due to deprecation in the greenback.

However, a state's export prospect doesn't just depend on where they ship to, but also what they ship. States with exports more skewed to the technology sector have already emerged at the top of the pile. Putting all the pieces together, we find exporters in Vermont and New Hampshire to be well positioned relative to the rest of New England.

European exposure signals reduced prospects for export growth

The nominal export-to-GDP ratio in New England is 7% (compared to nearly 9% for the US). However, this ratio is deceiving because it is skewed up by Ver-

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mont, which has a disproportionately high export share at 15%. There are only 4 other states in all of the US that are more leveraged to exports than Vermont. In contrast, at the low end of the spectrum are Rhode Island and Connecticut, where the export-to-GDP ratio is half of the US average.

However, even with **Connecticut**'s low export exposure, it does have a couple areas of vulnerability. Connecticut ships an unusually high share of goods to Europe, and specifically to countries were forecasts were marked down alongside aggressive fiscal consolidation efforts. Approximately 30% of its exports are destined to just three countries in Europe - France, Germany and the UK - with the former two countries representing the first and third largest markets for Connecticut's exports. These three countries are large and generally stable economies that are considered to be the backbone of the European Union. In fact, the value of Connecticut exports has returned to pre-recession levels in large part due to demand from France and Germany, where early indicators show that the economic activity was particularly buoyant in the second quarter. However, once we get past this very near-term outlook, the reality is that all three countries have prescribed themselves a good deal of fiscal belt-tightening to trim bloated deficits – along with other countries like Greece, Spain Portugal and Italy.¹ These measures will bite into European economic growth later this year and particularly in 2011, thus impacting export demand to this region.

Connecticut's shipments are also dominated by a single industry – aerospace – which makes up nearly half of the value of all its exports. The low product diversity certainly leaves the state's exports vulnerable to shifting winds in demand for a single product. Likewise, **Massachusetts** also has a fondness for European markets, with the UK, Netherlands and Germany grabbing one-third of its exports. But, unlike Connecticut, Massachusetts has a higher-than-average export share to the vulnerable PIIGS regions, which purchase 5% of the state's exports versus just 3% within the US as a whole. Thus, developments in Europe have a bigger impact on Massachusetts than on Connecticut because not only is its export market more leveraged to that region, but total exports also make up nearly twice the share of its economy (8%) relative to Connecticut.

In terms of products that are shipped, however, Massachusetts shows greater diversity, with computer and electronics making up just over one-quarter of exports, and a diverse group of chemicals, primary metal manufacturing, miscellaneous manufactured commodities, and machinery making up the next four dominant industry groups. So in the case of Massachusetts, export performance is more linked to developments in broader international demand, rather than potential supply and demand issues in a specific sector, like aerospace.

High-growth Asian exposure propels exports

When it comes to concentration of exports, **Vermont** shows the least product-diversity of any New England state with 74% of its exports in computer and electronic products. However, this concentration has served the state well so far in the economic recovery. IBM Corporation is the largest employer in the state, and rising demand for smart phones and other high-tech products has been a key underpinning to a 7% rise in exports from the start of the recession in 2008. No other state in New England has shown this degree of export strength, nor has the US as a whole. This performance is being replicated in other states that have a high concentration in electronic exports, such as California

| US STATE EXPORTS BY REGION % of total exports | | | | | | | |
|--|---------------|-------|--------|--------|--|--|--|
| | Big 3 Europe* | PIIGS | Canada | Asia** | | | |
| СТ | 30 | 2 | 10 | 17 | | | |
| ME | 6 | 1 | 40 | 30 | | | |
| MA | 27 | 5 | 13 | 21 | | | |
| NH | 12 | 3 | 15 | 19 | | | |
| RI | 11 | 4 | 33 | 17 | | | |
| VT | 4 | 3 | 46 | 34 | | | |
| New England | 24 | 4 | 16 | 21 | | | |
| US | 11 | 3 | 20 | 20 | | | |
| * Big 3 = France, Germany, UK | | | | | | | |

** Asia represented by China, India, Indonesia, Hong Kong, Japan, Malaysia, Phillipines, Singapore, Thailand Source: Moody's/Economy.com, TD Economics 2

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TD Economics

where international shipments are up 14% from the early days of the recession.

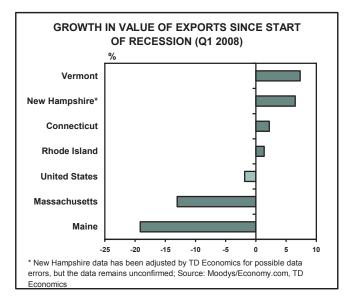
Normally placing all your eggs in one basket is a risky proposition, especially when that basket of exports makes up a high share of the total economy at 15%. Fortunately, Vermont exporters have been insulated from the troubles in Europe because the state primarily trades with the Asia-Pacific region and Canada. Both of these areas have weathered the global recession well. For instance, China never entered a recession and is currently tracking 10% growth on a year-over-year basis. Although Malaysia and Canada did experience a recession, it was shorter lived than in the US and both countries exited the recession with guns blazing. Real GDP is running at a 10% pace in Malaysia and Canada is within a hair of recovering all the jobs lost during the recession and is poised to be the fastest growing G-7 economy this year. This is in contrast to the euro zone where growth is anticipated to crawl at a 0.9% rate in 2010. Of course, Vermont isn't totally home-free, it does ship about 8% of its exports to Europe, but this is a small share relative to the other higher growth regions.

The distribution profile among exporters in **Maine** is highly similar to that of Vermont, with the top destination markets represented by Canada and Asia. Also like Vermont, computers and electronics are an important export for Maine. However, Maine's export performance pales in comparison to that of the Green Mountain state. In fact, Maine exports are 19% below levels seen at the start of the recession, which is the worst performance of any New England state. It also suffered a larger contraction in exports relative to the US as a whole. It is not completely obvious why these two states differ so greatly amidst seeming similarities, but there are some nuances that we can pick out of the data. First, because computer and electronics makes up a smaller share of Maine's exports at 20%, the rebound in demand for these products has offered a smaller overall boost to exports than in Vermont. Second, while the two states ship products to similar countries, Maine has twice the export concentration to Malaysia than Vermont. Export demand from Malaysia contracted sharply during the recession and, thus, has a lot more ground to recover. Third, Maine has a reasonably high reliance on transportation exports, particularly motor vehicles – of which sales have been slow to recover since to the start of the recession. Lastly we can't talk about Maine without addressing paper exports, which are tied for top spot in export concentration alongside computer and electronic goods. The paper industry is typically considered a more mature industry that lacks the dynamic growth of some of the high-tech sectors, and yet it is a sector that is on the rebound as prices and demand recover for certain products, particularly pulp and some coated paper products. However, here too exports have yet to return to pre-recession levels, as the industry suffered dearly during the downturn.

Middle of the pack still stand out

In contrast, **New Hampshire** looks to have recovered the value of exports since the recession left its mark at the start of 2008 – however, we must caution that there is evidence of a number of data anomalies that suggest the foreign trade figures for this state are less reliable. **Rhode Island** hasn't faired too badly either, and has also recently recouped the value of exports lost over the recession period. Both of these states run in the middle of the New England pack (and mirror the aggregate US) with regards to their export exposure to Europe and Asia, so there's no particular trade advantage or disadvantage on this front. There are slight differences

| FO | REIGN EX Manufacturi | Food | Paper | ACTURED Chemicals | PRODUC | Primary metal | Machinery (ex electrical) | Computer / Electronics | Electrical | Transport |
|---|-------------------------|------|-------|----------------------|--------|------------------|---------------------------------|---------------------------|------------|-----------|
| СТ | 88 | 2 | 1 | 6 | 2 | 2 | 10 | 7 | 3 | 46 |
| ME | 80 | 4 | 20 | 4 | 2 | 1 | 6 | 20 | 1 | 15 |
| MA | 94 | 2 | 2 | 16 | 2 | 12 | 9 | 28 | 2 | 5 |
| NH | 95 | 1 | 2 | 2 | 4 | 2 | 18 | 40 | 7 | 4 |
| RI* | 71 | 1 | 1 | 8 | 6 | 4 | 9 | 12 | 3 | 7 |
| VT | 97 | 3 | 3 | 2 | 1 | 0 | 5 | 74 | 2 | 2 |
| New England | 91 | 2 | 2 | 11 | 2 | 7 | 9 | 25 | 3 | 17 |
| US | 87 | 4 | 2 | 15 | 2 | 4 | 11 | 16 | 3 | 15 |
| * Waste and scrap has the largest export share for Rhode Island at 26% Source: Moody's/Economy.com, TD Economics | | | | | | | | | | |



in the exposure to the PIIGS countries, with Rhode Island showing nearly 4% export exposure, about a percentage point more than the national average.

Although New Hampshire's European trade exposure runs in the middle of the pack, it certainly has managed to stand out from the pack with its high export concentration of computer and electronics (40%), as well as machinery and equipment (18%). These two categories account for all of the growth that has returned exports to pre-recession levels. New Hampshire's top 3 markets are Mexico, Canada and China, which are countries that are forecasted to enjoy solid growth this year Interestingly, Germany is the fifth largest export market for New Hampshire. Like Connecticut, it is a market where export demand has been recovering strongly for New Hampshire over the past year. Among the euro-zone member countries, having exposure to Germany offers more promise than many other countries in the troubled sovereign debt area, as Germany is anticipated to be a growth-leader for the euro-zone (and even for the broader European Union) this year and next, and the country's fiscal finances are also in the strongest position within the region. That said, Germany's growth projections certainly trail that of Canada, Mexico and especially China for this year and next.

Rhode Island has a fairly similar export-destination profile to that of New Hampshire, but with different orderings and weightings. The UK and Germany grab second and fifth spot, and while demand from both of these markets has been on the upswing in the past year, exports remain well off pre-recession levels. Rhode Island is also more diversified in the products it exports, making big headway is its largest export of waste & scrap products, in which the value has nearly returned to pre-recession levels. Likewise the resurgence in demand for computer & electronics, machinery and chemicals has all served the state well. All three categories are above pre-recession values.

Conclusion

There are many moving parts when analyzing export data by state, but there are a handful of general findings that we can sum up.

- 1. Relative to the rest of America, the New England economy is less reliant on international export growth and thus is slightly more insulated from any slowing in global demand.
- 2. However, as a share of exports, two states Connecticut and Massachusetts – have a high reliance on European demand.
- 3. In regards to the high-risk PIIGS region, the majority of New England has very low exposure and the main channel in which exporters will be impacted is through movements in the greenback and slowing foreign demand momentum.
- 4. As we have come to see, the prosperity of the export sector and economy is not just a function of where you ship to, but also what you ship. States with exports more skewed to the technology sector – Vermont and New Hampshire – have seen the strongest recovery thus far in the value of exports.
- 5. By extension, the ideal combination between place and product has been for those states with a higherthan-average export reliance on Asia and where shipments are centered in the high value-added technology sector.

However, while Asia has been a high growth demand market through the first year of economic recovery, many of these economies have embarked on monetary tightening strategies in an attempt to cool the domestic economies and get ahead of inflation risks. There will be a downshifting in growth from Asia as we head into 2011 that will take some of the steam out of export demand. At the same time, for those states leveraged to Canada, it is the only G-7 economy that is hiking interest rates, and it too will see slower growth prospects in 2011. However, from a relative basis, these two regions will still outperform Europe in the coming year, offering more support to export demand.

When all is said and done, we must remember that for-

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| GLOBAL ECONOMIC OUTLOOK | | | | | | | | |
|--|------|------|----------|------|------|--|--|--|
| Annual per cent change unless otherwise indicated | | | | | | | | |
| 2007 | | | Forecast | | | | | |
| Real GDP | (%) | 2008 | 2009 | 2010 | 2011 | | | |
| World | 99.1 | 2.8 | -1.0 | 4.0 | 3.6 | | | |
| North America | 25.5 | 0.5 | -2.8 | 3.3 | 2.9 | | | |
| United States | 21.4 | 0.4 | -2.4 | 3.2 | 2.8 | | | |
| Canada | 2.0 | 0.5 | -2.5 | 3.6 | 2.5 | | | |
| Mexico | 2.1 | 1.3 | -6.6 | 3.9 | 3.8 | | | |
| European Union (EU-27) | 23.7 | 0.8 | -4.1 | 1.1 | 1.2 | | | |
| Euro-zone (EU-16) | 16.1 | 0.5 | -4.0 | 0.9 | 1.1 | | | |
| Germany | 4.4 | 1.0 | -4.9 | 1.6 | 2.0 | | | |
| France | 3.2 | 0.1 | -2.5 | 1.4 | 1.6 | | | |
| Italy | 2.8 | -1.3 | -5.1 | 0.4 | 0.6 | | | |
| United Kingdom | 3.3 | 0.5 | -4.9 | 1.0 | 1.4 | | | |
| EU accession members | 3.4 | 2.1 | -3.9 | 2.0 | 1.5 | | | |
| Asia | 35.5 | 4.8 | 1.5 | 6.4 | 5.7 | | | |
| Japan | 6.6 | -1.2 | -5.2 | 2.6 | 1.6 | | | |
| Asian NIC's | 3.7 | 1.5 | -1.0 | 5.5 | 4.9 | | | |
| Hong Kong | 0.5 | 2.2 | -2.6 | 5.1 | 4.9 | | | |
| Korea | 1.9 | 2.2 | 0.1 | 5.0 | 4.9 | | | |
| Singapore | 0.3 | 1.1 | -2.2 | 6.1 | 5.5 | | | |
| Taiwan | 1.1 | 0.1 | -1.9 | 6.5 | 4.7 | | | |
| Russia | 3.2 | 5.6 | -7.9 | 4.1 | 3.9 | | | |
| Australia & New Zealand | 1.4 | 2.1 | 1.0 | 3.1 | 3.2 | | | |
| Developing Asia | 20.6 | 7.4 | 5.6 | 8.3 | 7.6 | | | |
| ASEAN-4 | 3.1 | 4.7 | 1.2 | 4.6 | 4.4 | | | |
| China | 10.9 | 9.0 | 8.5 | 9.9 | 9.0 | | | |
| India | 4.6 | 7.3 | 5.7 | 8.1 | 7.4 | | | |
| Central/South America | 6.1 | 4.7 | -0.2 | 4.2 | 3.7 | | | |
| Argentina | 0.8 | 6.8 | 0.9 | 3.2 | 3.1 | | | |
| Brazil | 2.8 | 5.1 | -0.2 | 6.2 | 4.1 | | | |
| Other Developing | 8.4 | 5.5 | 1.7 | 4.3 | 4.2 | | | |
| *Regional wts. do not sum to 100% because some countries omitted | | | | | | | | |
| Forecast as at June 2010 | | | | | | | | |
| Source: International Monetary Fund, national statistical agencies | | | | | | | | |

eign trade is only one aspect of the New England region that will affect its economic growth prospects. The far larger and more important influence is domestic demand. However, while domestic policies can directly target and influence demand conditions at home, there is little the US government and monetary authorities can do to influence international demand for American products. The fate of US exporters who have an international focus (rather than intra-state) is in the hands of foreign policies and demand. In the early stages of the global economic recovery, the international community was instrumental in stoking US economic growth via export demand, but that influence will wane later this year and especially in 2011. And, as we have seen, some states will be more cushioned than others when this export-growth transition occurs.

Endnotes

1 For details on European developments and forecasts, see www.td.com/economics/int.jsp and www.td.com/economics/qef/qefjun10_global.pdf

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