When most people hear the word “infrastructure,” they think of roads, highways and bridges. But infrastructure is a lot more than that: It includes the pipes and wires that carry gas, electricity and water to our homes, and the fibers, towers and satellites that carry data to our phones, computers and televisions. For investors, this means that there’s a large—and growing—worldwide demand for investment in both building and maintaining these critical networks.

The McKinsey Global Institute, the research arm of McKinsey & Co., recently estimated that $57 trillion in infrastructure investment is required between now and 2030 just to keep up with projected global economic growth. That’s a 60% increase from the amount spent over the past 18 years.

Why the need? In emerging economies in Asia, Latin America and Africa, governments are under pressure to supply basic services to large and growing populations, McKinsey says. And more-developed markets in Europe and the Americas need to maintain their aging infrastructure.1

Infrastructure spending: % of GDP

Using the 70% rule of thumb, infrastructure investment would need to rise to 4.1% of GDP to keep pace with growth through 2030.

The world will need to spend more than it has historically in order to maintain infrastructure stock of ~70% of GDP.

<table>
<thead>
<tr>
<th>Region</th>
<th>Estimated % of GDP needed</th>
<th>Estimated % of GDP needed</th>
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</thead>
<tbody>
<tr>
<td>European Union</td>
<td>3.1</td>
<td>2.6</td>
</tr>
<tr>
<td>Other developed</td>
<td>3.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Developing</td>
<td>5.6</td>
<td>5.5</td>
</tr>
<tr>
<td>World</td>
<td>4.1</td>
<td>3.8</td>
</tr>
</tbody>
</table>

While the rule of thumb suggests China and Japan can reduce infrastructure investments from historical levels, most other countries will need to increase it.

<table>
<thead>
<tr>
<th>Country</th>
<th>Estimated % of GDP needed</th>
<th>Estimated % of GDP needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>6.4</td>
<td>8.5</td>
</tr>
<tr>
<td>Japan</td>
<td>2.6</td>
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<tr>
<td>South Africa</td>
<td>5.1</td>
<td>3.4</td>
</tr>
<tr>
<td>India</td>
<td>6.9</td>
<td>4.7</td>
</tr>
<tr>
<td>Russia</td>
<td>4.0</td>
<td>3.4</td>
</tr>
<tr>
<td>United States</td>
<td>3.6</td>
<td>2.6</td>
</tr>
<tr>
<td>Brazil</td>
<td>4.9</td>
<td>1.5</td>
</tr>
</tbody>
</table>

1 Estimated need based on projected growth, 2013-30. 2 Weighted average annual expenditure over years of available data, 1992-2011.

A growing need at home
The United States has a long-term need to shore up its economic foundation. The American Society of Civil Engineers estimates that $3.6 trillion in spending will be needed by 2020 to modernize the country’s aging systems. That’s up from a projected need of $1.6 trillion in 2005. And while most of the cost of developing infrastructure is borne by governments and other public entities, much of it is built and maintained by publicly owned companies.

Therein lies an opportunity for investors convinced that the demand for infrastructure will grow over time, says Mike Loewengart, director of investment strategy for E*TRADE. Another boon to investors is the fact that this broad investment sector is relatively insensitive to economic cycles and market gyrations. “The need for basic services such as water and electricity is more consistent than the demand for more discretionary items,” he says.

Steady, predictable revenue
The sheer size of a single infrastructure investment—a toll road or a data network, for example—provides unique advantages to companies that build them, says Todd Rosenbluth, director of exchange traded fund (ETF) and mutual fund research for S&P Capital IQ. These huge projects can provide a steady revenue stream for many years, and contracts for these massive undertakings typically include guarantees that their payments will rise with inflation.

Then, once the project is completed, the builder is often the first in line to secure the contract to perform ongoing maintenance, providing additional years of predictable cash flow. “Once a company builds an infrastructure project, it tends to stay entrenched,” Rosenbluth says.

That’s because potential competitors may find it difficult or even impossible to enter a given market, as is the case with many utilities that have a contract with a municipality or specified service area. Or customers may stick with the company out of inertia, as in the case of a cable company that provides television and Internet services. In these sectors, a stable customer base becomes the source of a consistent revenue stream, which can become the basis of steady earnings and dividends for the company, its shareholders and those who invest in it.

Understand the risks
Infrastructure projects also carry unique risks. First, because governments fund much of the world’s infrastructure development, individual projects can carry political risk. For example, a politician or political body that approved a project may change its mind, or the project’s fortunes may reverse when new leaders are elected, notes Loewengart. A slowdown in economic growth, or a heavy debt burden, may prevent governments from executing on even important infrastructure projects, says Robert Goldsborough, an ETF analyst with Morningstar.

Another concern is that infrastructure developers, such as utilities, often carry a significant amount of debt, which can make them sensitive to changes in interest rates. The rapid pace of technological innovation may render massive infrastructure projects obsolete more quickly than expected.
One industry, multiple sectors
Infrastructure-focused companies can be found in a variety of industries. They include:

- **Industrials:** Construction, heavy machinery, transportation and environmental services companies can generate revenue by managing or supplying services and equipment to infrastructure projects.

- **Utilities:** This sector is the closest to a “pure” infrastructure investment because it focuses on firms that provide electric, gas, water and other basic services. Some of these firms are considered “natural monopolies” because of their high barriers of entry for competition. As such, their profits are closely regulated, which means they are unlikely to go below—or above—established ranges.

- **Technology:** Technology services and data storage are quickly moving from individual computers to “the cloud.” Cloud data is held in massive “server farms” that hold vast amounts of information. This is a new and growing type of infrastructure. The technology analysis firm Gartner values the public cloud services market at $131 billion in 2013.3

- **Communications:** This sector includes companies that build, equip and maintain wired and wireless phone, cable and data networks. This sector has been transformed by the move to wireless and mobile communications and computing. Many firms are pouring billions of dollars into fiber networks, cellular towers and satellites as they race to provide the latest mobile and television services.

- **Equity energy:** Some companies specialize in what is known as energy infrastructure: They build and maintain pipelines and grids or store energy for future use. Some investors like energy infrastructure companies because they are considered less subject to relatively volatile energy costs. For example, crude oil pipeline operators generally receive fees based on the volume of product transported, not on the price of oil.4

- **Natural resources:** Companies that sell commodities used in construction, such as certain metals, minerals and timber, benefit from large infrastructure projects.
Investor strategies
A wealth of ETFs with an infrastructure slant has emerged in recent years. Some focus on development in fast-growing emerging markets. There are also sector-specific mutual funds and ETFs in areas such as construction, water distribution, telecommunications equipment and even cloud computing.

Some of these funds track indices that focus on specific segments. For example, the S&P Global Infrastructure Index contains 75 large companies in the utilities, transportation and energy categories. It has a 40% stake in utilities. By contrast the FTSE/Macquarie Global Infrastructure 100 has 86% of its portfolio in utilities firms.

Still, given the global nature of infrastructure development and the complex structure of many of the projects involved, some investors could benefit by choosing an actively managed mutual fund over an index product or passively managed mutual fund or ETF, Loewengart says. “Many of the companies that operate in the global infrastructure market are domiciled outside the United States and have extensive operations outside the developed world,” he says. “International investing carries additional risks, and it may be important to have expertise both in the geographic area of the project and in areas specific to the investment, like real estate or urban planning.”

Companies that build and maintain infrastructure fill a compelling and growing need, lock into regular revenue streams, and often have the size and scale to keep competition at bay, Loewengart adds. “These elements may help to keep their earnings relatively steady over time.”

Investor Insight Recap
When analyzing infrastructure investments, here are a few things to keep in mind:

- **Know your portfolio.** If you own a broad S&P 500 fund, you already own some companies in this space. For example, as of mid-2013, about 10% of the S&P 500 was in energy, 10% was industrials, 3% was in utilities, and 3% was in telecommunications. If you buy infrastructure-specific funds, you’ll likely be increasing your exposure to these areas, Rosenbluth says.

- **Beware of high concentration.** If you are convinced of the virtues of infrastructure as an asset class, then you may want to invest in a fund that invests in infrastructure across multiple sectors. Focusing too much of your allocation on a single sector or company could entail additional investment risk.

- **Choose carefully.** When choosing actively managed funds, look for managers with a solid track record of outperforming their benchmarks and be wary of high expenses, Morningstar’s Goldsborough says.
All investments involve risk, including loss of principal amount invested. For more detailed discussion about the risks of investing in a mutual fund or ETF, as well as the fund’s investment objectives, policies, charges, and expenses, please read the fund’s prospectus.

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