

Shizuoka Prefecture

Why Shizuoka became one of Japan's leading prefectures for manufacturing

- Tokugawa Ieyasu retired to Sunpu Castle in Shizuoka Prefecture after yielding power to his son in 1605. The prefecture, known for its mild climate and scenic beauty, is one of Japan's leading prefectures in terms of manufacturing. Its favorable location, between Tokyo area and Nagoya area, the early completion of the Tomei Expressway, and abundant water resources have contributed to the development of manufacturing in the prefecture.
- The prefecture is also the birthplace of Japan's motorcycle industry, the top-ranking one in Japan for seven straight years in terms of the total value of output of pharmaceuticals and medical equipment, and Japan's leading one in terms of pulp and paper production.

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Tokugawa Ieyasu yielded power to his son after two years

The Edo era, which lasted 265 years (1603-1868), started when Tokugawa Ieyasu was appointed shogun (generalissimo) and established the Tokugawa Shogunate in Edo (current Tokyo) in 1603. However, just two years later, in 1605, he named his son Hidetada to the shogunate. Ieyasu took control after winning the Battle of Sekigahara in 1600, after the leader Toyotomi Hideyoshi died, but members of the Toyotomi clan remained in Osaka. Ieyasu's early retirement was apparently a declaration that he did not intend to return power to the Toyotomi clan.

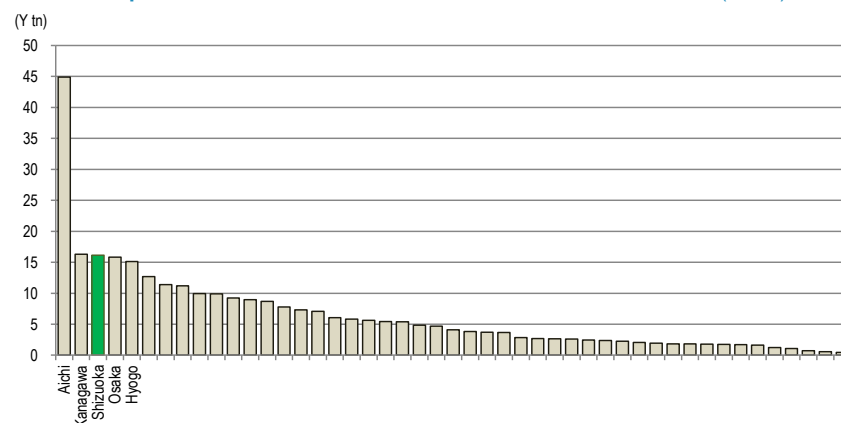
Shizuoka Prefecture is also known for its connections to Ieyasu, mild climate, and scenic beauty

The retired Ieyasu then moved his home to Sunpu Castle in Shizuoka City, Shizuoka Prefecture. The building of current prefectural government is built on the site of the castle. Ieyasu chose the castle for various reasons, one of which was his close ties to it. Ieyasu spent some of his childhood years at the castle when the daimyo Imagawa of the Sengoku Period lived there. It was also his castle when he expanded his territory as a Sengoku daimyo (Toyotomi Hideyoshi later ordered him to move to Edo). Shizuoka Prefecture faces the Pacific Ocean and has a mild climate thanks to the warm waters of the Kuroshio Current. With the prefecture having scenic and abundant natural beauty and Mount Fuji, Japan's tallest peak, near its northern boundary, the area makes for a good retirement location.

One of Japan's leading prefectures in terms of manufacturing

Shizuoka Prefecture's general reputation has not changed much; it has mild climate and scenic and abundant natural beauty, and it is also Japan's leading area of tea production. It thus came as much surprise when I found out, upon getting into the muni bond business, that the prefecture is one of Japan's leading ones in terms of manufacturing. It ranks third in terms of the value of shipments of manufactured products in 2016 (Chart 1). When one passes through Shizuoka on the Tokaido bullet train, Mount Fuji's majestic beauty dazzles the eye, but the many factories and smokestacks are also apparent.

Chart 1: Shipment Value of Manufactured Products for 47 Prefectures (CY16)



Source: Ministry of Economy, Trade and Industry (METI); compiled by Daiwa Securities.

Favorable location, between Tokyo area and Nagoya area, and early completion of the Tomei Expressway

Major reasons that Shizuoka is one of Japan's leading prefectures in terms of manufacturing are its geographical advantages and history of being a region of local industry. It is located between the Tokyo area and Nagoya area, two of Japan's three largest metro areas (Chart 2). The Tomei Expressway, which links Tokyo with Aichi Prefecture, was fully completed and opened early on, in 1969. Many companies headquartered in the three major metro areas have built factories in the region, attracted by the availability of large industrial sites at reasonable costs and the abundant water resources.

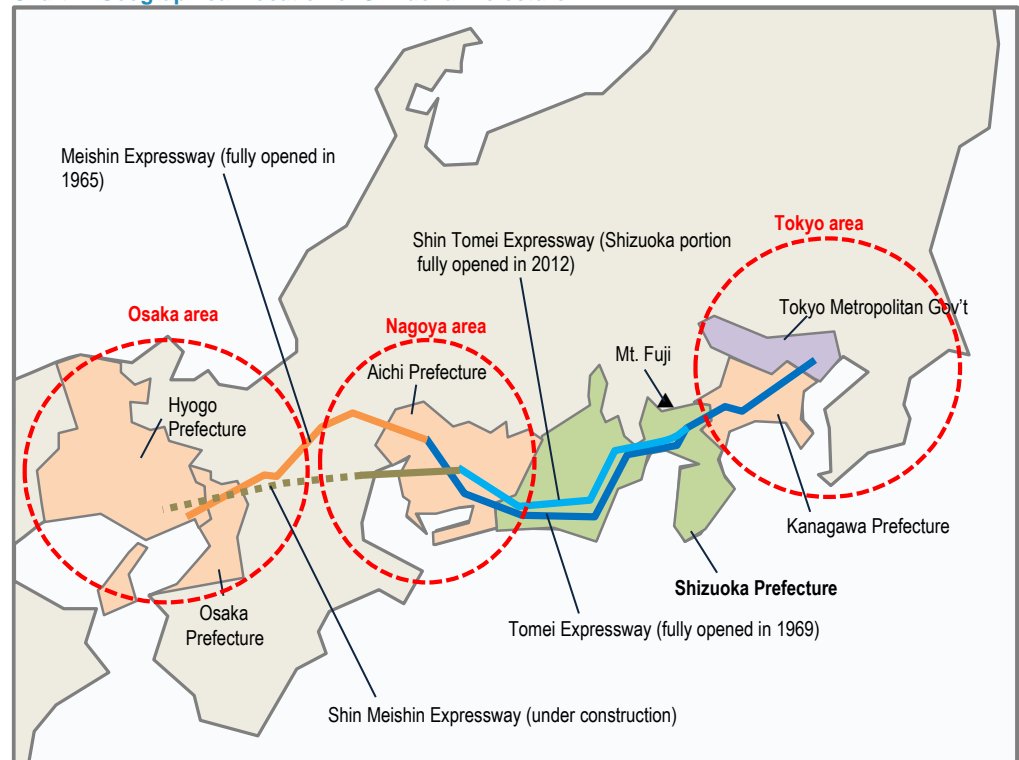
One part of the region that is the backbone of manufacturing in Japan

The map in Chart 2 includes the top five prefectures in terms of the value of shipments of manufactured products shown in Chart 1 (from east to west): Kanagawa, Shizuoka, Aichi, Osaka, and Hyogo. Shizuoka is one part of the region that constitutes the backbone of manufacturing in Japan. Other than Shizuoka Prefecture, the prefectures in the top five are all in the three major metro areas and are linked by the Tomei Expressway (linking Tokyo and Aichi Prefecture; completed in 1969) and the Meishin Expressway (linking Aichi and Hyogo prefectures; completed in 1965). The Shin-Tomei Expressway and Shin-Meishin Expressway, which are designed to strengthen the transport infrastructure, have recently been under construction. The Shizuoka portion of the Shin-Tomei Expressway was completed and opened in 2012. The Tomei Expressway ranks second among the major highways in Japan in terms of net operating income in FY17. The Tomei and Shin-Tomei expressways combined would rank first and represent a major artery that goes through Shizuoka.

Ieyasu retired to Sunpu Castle partly because of its location between Tokyo and Osaka

It is apparent from the map in Chart 2 that Tokugawa Ieyasu's retirement at Sunpu Castle was not a retirement in the true sense. The castle was a frontline defense in the event that the Toyotomi clan, which remained in Osaka, decided to try to attack Edo. Even after moving to Sunpu Castle, Ieyasu actually remained effectively in power and shored up the base of the Edo shogunate. After eliminating the Toyotomi clan in the Siege of Osaka in the summer of 1615, Ieyasu died at Sunpu Castle in 1616.

Chart 2: Geographical Location of Shizuoka Prefecture



Source: Geospatial Information Authority of Japan, Japan Expressway Holding and Debt Repayment Agency; compiled by Daiwa Securities.

Known as a department store of industry, with a relatively well-balanced mix of industries

Shizuoka Prefecture is known as a microcosm of Japan and a department store of industry, as manufacturing in the prefecture is characterized by a relatively well-balanced mix of industries. The transportation equipment, electrical machinery, chemical, and pulp & paper industries have somewhat higher weightings in the prefecture than they do nationwide.

The birthplace of Japan's motorcycle industry

The city of Hamamatsu in Shizuoka Prefecture is the birthplace of Japan's motorcycle industry. Honda, Yamaha, and Suzuki, three of Japan's four largest motorcycle manufacturers, started manufacturing in the city. In the prefecture, Honda also has an auto parts factory, and Suzuki has a plant for producing minicars and parts. Yamaha's motorcycle production division is independent of the musical instruments business, and all Japanese-made pianos, including those of Yamaha and Kawai, are made in Shizuoka Prefecture.

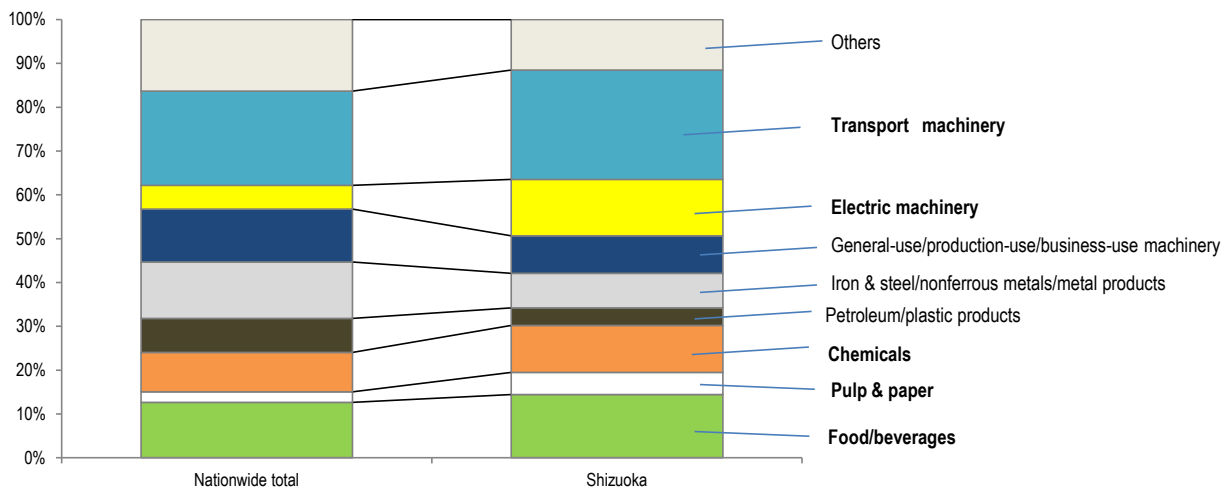
Production of home appliance products and electrical auto parts

Among electrical machinery companies, Panasonic and Mitsubishi Electric have plants in the prefecture, which is contributing to high proportions of home appliance products, such as air conditioners, lighting, and other products for the home. The proportion of electrical auto parts is also high in the prefecture.

Abundant water benefits production of pharmaceuticals, medical equipment, and pulp & paper; Japan's leading prefecture in terms of production of these items

Pharmaceuticals account for a high proportion of the chemical industry. Shizuoka was the top-ranking prefecture in Japan for seven straight years between 2010 and 2016 in terms of the total value of output of pharmaceuticals and medical equipment. These industries all require clean water, and Shizuoka has abundant water resources in terms of rainfall and rivers. The prefectural government has been promoting a Pharma Valley Project in an effort to attract many pharma and health-related industries to the eastern part of the prefecture. Shizuoka is also Japan's leading prefecture in terms of pulp and paper production, a business that requires abundant water resources.

Chart 3: Sector Breakdown of Shipment Value of Manufactured Products—Nationwide Total and Shizuoka Pref. (CY16)



Source: METI; compiled by Daiwa Securities.

The prefecture's R&I and Moody's ratings are the same as Japan's sovereign credit ratings

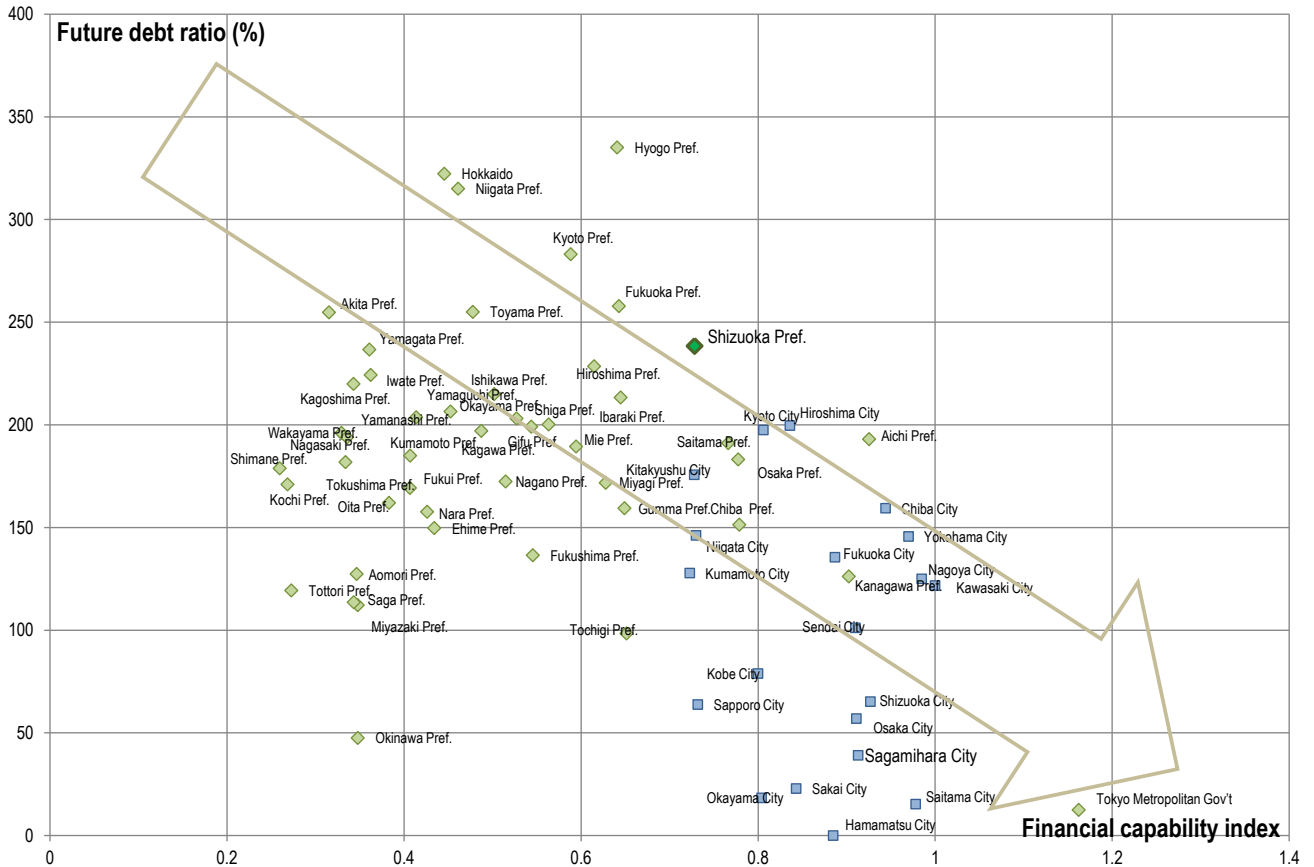
The prefecture has a credit rating from R&I (Japanese rating agency) of AA+/stable, the same as the agency's sovereign credit rating for Japan, and a rating from Moody's(*) of A1/stable, the same as the agency's sovereign credit rating for Japan¹.

(*) Indicates unregistered rating agency; please see the disclaimer at the end.
¹ Japan's sovereign credit rating is assigned by unregistered rating agency.

Good balance between economic base and debt burden

Finally, we show in Chart 4 municipalities' financial strength indices (economic base; x-axis) and future debt ratios (y-axis) for FY17. Positions to the lower right of the graph reflect stronger figures. Shizuoka Prefecture is one of Japan's leading prefectures in terms of manufacturing, with a strong economic base.

Chart 4: Future Debt Ratio and Financial Capability Index for Prefectures and Ordinance-designated Cities (FY17)



Source: Ministry of Internal Affairs and Communications; compiled by Daiwa Securities.

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■ Credit Rating Agencies

[Standard & Poor's]

The Name of the Credit Rating Agencies group, etc

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[Moody's]

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[Fitch]

The Name of the Credit Rating Agencies group, etc

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The name and registration number of the Registered Credit Rating Agency in the group: Fitch Ratings Japan Limited (FSA commissioner (Rating) No.7)

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- In addition to the purchase price of a financial instrument, our company will collect a trading commission* for each transaction as agreed beforehand with you. Since commissions may be included in the purchase price or may not be charged for certain transactions, we recommend that you confirm the commission for each transaction. In some cases, our company also may charge a maximum of ¥ 2 million (including tax) per year as a standing proxy fee for our deposit of your securities, if you are a non-resident.
- For derivative and margin transactions etc., our company may require collateral or margin requirements in accordance with an agreement made beforehand with you. Ordinarily in such cases, the amount of the transaction will be in excess of the required collateral or margin requirements**.
- There is a risk that you will incur losses on your transactions due to changes in the market price of financial instruments based on fluctuations in interest rates, exchange rates, stock prices, real estate prices, commodity prices, and others. In addition, depending on the content of the transaction, the loss could exceed the amount of the collateral or margin requirements.
- There may be a difference between bid price etc. and ask price etc. of OTC derivatives handled by our company.
- Before engaging in any trading, please thoroughly confirm accounting and tax treatments regarding your trading in financial instruments with such experts as certified public accountants.

* The amount of the trading commission cannot be stated here in advance because it will be determined between our company and you based on current market conditions and the content of each transaction etc.

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