

Vietnam: The Next Target in Global Manufacturing Deployment for Taiwan Fastener Industry

by Dr. Wayne Sung

At the Cross-Strait CEO Summit held in December 2018 in Xiamen City of Fujian Province in China, Hon Hai/Foxconn CEO Terry Gou gave a keynote speech on balancing trade surplus and the challenges and opportunities for overseas Taiwanese business owners. Gou pointed out that the U.S./China trade war is nowhere coming to an end in the short term and he expects it to be a tug of war within a 5-to-10-year timeframe. This is certainly going to cast a tremendous impact on global trade, but Vietnam in Asia and Mexico in Latin America will be the top 2 beneficiaries due to their geographic and political edges. Gou analyzed that the trade war will force the supply chain in manufacturing to re-structure in various areas. In his forecast, the future supply chain will be re-distributed according to the market competition between the U.S. and China. The determining factor of dominance will no longer be limited to the scale of supply chain. Instead, those in the chain will be required to possess more “flexibility”. Certainly, the trade war will significantly hinder the “Made in China 2025 Initiative” where China plans to turn from a “manufacturing country” into a “manufacturing power”. Despite the tariff barrier, the United States-Mexico-Canada Agreement that Mexico recently signed will render the country to benefit from the American market demand, and Vietnam will benefit for its special political conditions and similarity to China’s products. This author will discuss 3 aspects in the following article: the current state of investment in Vietnam, the investment by Taiwanese companies in Vietnam, Vietnam’s multi-lateral tariff agreements with other countries.

Current Investment in Vietnam

Vietnam was the only country in the world that declared war with the U.S. and then China after World War II. The Vietnam war broke out in 1960, in which northern Vietnam was backed by the Soviet Union & China and the southern Vietnam was backed by the U.S. After decades of fierce battle, the U.S. military eventually pulled out in 1973. In 1975 the northern Vietnamese troops occupied Saigon (now Ho Chi Minh City), the capital of southern Vietnam, and reunified as Socialist Republic of Vietnam in 1976. In February a war was triggered between

Vietnam and China due to border dispute. The Chinese People’s Liberation Army attacked Lang Son, Cao Bang and Lao Cai Province, and then withdrew in mid-March. The people of Vietnam are proud of their country because it had no record of defeat in the face of two military powers. The author had multiple visits to Vietnam and talks with Taiwanese business owners there in 2018 to observe the current status of Vietnam. In recent years Vietnam has seen a rapid growth in economic development. The country is relatively loose on Internet censorship and the Vietnamese people are free to travel. Particularly the urban area is vibrant with busy traffic and crowds. All of these indicate a flourishing country.

The capital of Vietnam is Hanoi City, and the largest city is Ho Chi Minh City in the south. The Communist Party of Vietnam is the only legal party in Vietnam. The country spreads across 331,410 square meters in area which is 9 times the size of Taiwan, and the population is nearly 100 million. Its GDP in 2017 was USD 223.47 billion with per capita national income at USD 2,385, the consumer price index growth rate at 3.53%, the industrial growth rate at 7.85%, the economic growth rate at 6.81%, and the unemployment rate merely at 2.24%. With a high level of economic growth in recent years, Vietnam attracted more foreign investments year after year. Economically in 2017, Vietnam saw its industrial and construction industry grow 8%, service industry grow 7.44%, agriculture/forestry/fishing industries grow 2.9%, export grow 21.1% to a total export value of USD 214.02 billion, and import grow 21.2% to a total import value of USD 211.1 billion. **Table 1** shows the top 10 trading partners with Vietnam in 2017 with monetary values calculated by Vietnam authorities.

Table 1. Top 10 Trading Partners with Vietnam in 2017

Unit: USD Million

Trade Partner	Total Trade Value		Export		Import	
	Ranking	Value	Ranking	Value	Ranking	Value
Mainland China	1	93,691.30	2	35,462.70	1	58,288.60
South Korea	2	61,557.30	4	14,822.90	2	46,734.40
United States	3	50,810.80	1	41,607.50	6	9,203.40
Japan	4	33,433.80	3	16,841.50	3	16,592.30
Taiwan	5	15,281.50	18	2,574.50	4	12,707.00
Thailand	6	15,281.30	9	4,786.10	5	10,495.20
Malaysia	7	10,069.20	10	4,209.00	7	5,860.20
Germany	8	9,534.50	7	6,364.30	10	3,170.20
Hong Kong	9	9,245.80	5	7,582.70	12	1,663.10
Singapore	10	8,262.40	13	2,961.00	8	5,301.40
Total (Including Other Countries)		425,122.00		214,019.00		211,103.00

Source: Vietnam authorities

The total foreign investment value to Vietnam in 2017 was USD 35.884 billion, of which the largest portion came from Japan (USD 9.112 billion, taking up 25.39%), followed by South Korea (USD 8.494 billion, 23.67%), Singapore (USD 5.308 billion, 14.79%), China (USD 2.168 billion, 6.04%), and Taiwan which was ranked 7th (USD 1.46 billion, 4.07%). **Table 2** from Vietnam authorities is a statistics chart of top 10 foreign investors for Vietnam in 2017.

divided into two types. One is the tariff agreement signed directly between Vietnam and other countries or regions; the other is the one signed between ASEAN or other regions, in which Vietnam is entitled to the right of preferential tariffs. Vietnam has signed Agreements on the Promotion and Protection of Investments with 43 countries, and it is one of the few countries that is also a part of Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) as well as Regional Comprehensive Economic Partnership (RCEP). This author explains as follows.

1. Tariff agreements signed between Vietnam and other countries or regions:

- (1) In 2006, the U.S. granted Permanent Normal Trade Relations status to Vietnam.
- (2) Vietnam-Japan Economic Partnership Agreement signed in 2009.
- (3) Vietnam-Korea Free Trade Agreement signed in 2015.
- (4) In December 2015, Vietnam completed consultation with the EU on EU-Vietnam Free Trade Agreement which both parties strove to put in force at the end of 2018.
- (5) Free trade agreement with Eurasian Economic Union (members including Russia, Belarus, Kazakhstan, Armenia, etc.) effective since 2016.

2. Tariff agreements signed via ASEAN by Vietnam with Other Countries or Regions:

- (1) ASEAN-Australia-New Zealand Free Trade Agreement.
- (2) Tariff reduction plan in ASEAN-Japan Comprehensive Economic Partnership Agreement.
- (3) Preferential tariff in ASEAN-India Free Trade Agreement.

In APEC held in Vietnam in November 2017, TPP was renamed to CPTPP (Comprehensive and Progressive Agreement for Trans-Pacific Partnership) and temporarily ceased to apply to 22 articles originally required by the U.S. to be included into the agreement. The 11 members of CPTPP signed the agreement in Chile in March 2018. The 16 members of RCEP made a collective announcement at the RECP Summit in November 2017 that they pledged to finish negotiation before the end of 2018. Notably, Vietnam is one of the 7 countries able to be a part of both agreements.

Best Option: Multi-Place Deployment

Enterprises in the 21st century face more and more uncertainties, and it is increasingly difficult for Taiwan fastener industry to make long-term deployment. After finishing deployment, they might also have to re-adjust due to political or environmental changes. Business uncertainties caused by the external environment cast a lot of pressure on business runners who might have to utilize “multi-place deployment” in the future to react. With political and economic advantages and preferential tariffs with multiple countries and regions, Vietnam will be the first consideration for Taiwan fastener industry on multi-place deployment strategy. ■

The installation of many tapping screws involves the screws piercing or drilling their own holes into assembly components. A firm, positive fit between the driving tool bit and the screw's recess is extremely important to achieve the proper installation performance of these types of screws.

If there is looseness between the driver bit and the recess, the screw “wobbles” on the bit. In many cases, it can disengage from the bit entirely, resulting in a failure to drive the screw into the assembly. Only if the driving bit and recess create a ridged, non-wobbling connection will the screws drive into the assemblies as intended.

All Tapping Screws with Cross or Square Recessed Heads Should Be Inspected for Recess Wobble

by Larry Borowski

Piercing and driving screws are most adversely affected by recess wobble

Many operators drive piercing and drilling screws very rapidly on assembly lines or construction sites. If the screws fail to drive into the assemblies properly a great deal of production can be lost. In many cases when the bits completely wobble out of the recess the surfaces of the assembly are marred or otherwise damaged by the disengaged driver bit. These problems make screw users extremely unhappy and in most cases result in the return of the screws to the supplier.

Wobble gaging has been a part of the American Society of Mechanical Engineers (ASME) standards for over 40 years, but some manufacturers of recessed screws continue to ignore this requirement. Many suppliers are under the mistaken impression that if they measure the recess penetration depth and it is correct the recess is good. This is not necessarily true. The incorrect forming of the screw's first blow (upset) can cause the material around the recess to splash outwardly instead of hugging the recess punch's shape in the final forming blow. In these cases the recess penetration depth can be correct, but the recess is oversized on its width and/or diameter. These conditions cause the recess not to fit tightly on driver bits and results in screw wobble.