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Leveraging Foreign Trade Zones to Reduce Operating Costs

A Guidebook for Importers Seeking to Reduce Trade-Compliance Costs

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Introduction

With the advent of globalization, many consumer goods providers look to offshore manufacturers for raw materials as well as the production of their finished goods. When these finished goods arrive in the United States for distribution to consumer markets, they may be subject to significant ad valorem import duties, tariffs, inventory property tax and other fees. As the world is flattened, government and manufacturers have both been forced to shift their strategies to compete with the exploding growth of international trade. One of these strategies is the implementation of Foreign Trade Zones for manufacturing and distribution. Foreign Trade Zones were created by the U.S. Congress in 1934 to stimulate commerce, facilitate trade, and boost domestic U.S. employment as a result of the reduction of import expenses. Companies that are importing raw material or finished goods to the U.S. need to evaluate their FTZ strategies to determine if they can take advantage of several direct and indirect benefits:

Direct Benefits of Foreign Trade Zones:

- Duty Deferment
- Reduced Merchandise Processing Fees (MPF)
- Inventory Property Tax Exemption

Indirect Benefits of Foreign Trade Zones:

- Duty reduction or elimination
- Reduced freight costs
- Reduced inventory carrying costs
- Ability to bring off-shore manufacturing back to the U.S.

Commonwealth Supply Chain Advisors has chosen three real-life case studies which illustrate the savings potential available from executing an FTZ strategy, along with the specific steps those companies took to realize the savings. In some cases, the companies cited preferred to remain anonymous. In these instances, minor details of the savings achieved have been altered to protect the anonymity of the subject companies, but this has been done in a conservative manner which ***understates*** the impact of FTZ activation.

FTZ Regulations vs. NAFTA

Foreign Trade Zone (FTZ) regulations differ from the North American Free Trade Agreement (NAFTA) in some ways, in that companies operating in an FTZ generally do not need to comply with substantial transformation and local content requirements.

Companies can take advantage of both NAFTA and FTZ benefits in some cases.

Fast ROI is Attainable

Traditionally, there have been three ways that a company could achieve FTZ designation:

1. Physically move the operation to an existing FTZ and activate FTZ status through the port authority. This often involves a strict application process to obtain activation, and the company must also obtain Bond and Surety. The final activation is granted by the U.S. Customs.
2. Obtain a Sub-Zone designation for the existing facility, thereby carving out a portion of an existing designated zone for the current site without having to move. This process, while it does not involve a physical move, can nevertheless be time consuming due to the application process.
3. Utilize a third-party logistics provider that is already located in an FTZ zone or sub-zone.

The second strategy often provides the most attractive return-on-investment, as it does not require an expensive relocation. This was the option which was selected by the first company that Commonwealth profiled.

Ways to Achieve FTZ Designation:

1. Physically move to an existing FTZ

2. Obtain a Sub-Zone designation

3. Utilize a 3PL that is located within a zone

Case Study: Imation Sees 12-Month Return-on-Investment from FTZ Activation

Imation Corporation is a $1.6 billion dollar manufacturer of personal storage devices such as CD/DVD drives and flash memory drives. Several years ago the Minnesota-based company sought to reduce their duty liability on component parts imports. Similar to Company A (described in the next section), Imation had to pay a substantial duty on component parts, but if finished goods were imported there was no duty at all. The company needed to find a way to physically import component parts for manufacture within the United States, but to defer or avoid paying the component part duty.

Imation decided to seek FTZ sub-zone status for four of their manufacturing locations, which, at the time, were located in California, North Dakota, Oklahoma, and Arizona. With the assistance of a consulting firm that specialized in FTZ setup, the company was able to activate FTZ status for the first site within four months. Activation of the remaining sites followed shortly thereafter. Component parts would be imported into the manufacturing plant in the U.S., but these would remain in a bonded condition (no duty was levied) and would be used to manufacture finished goods. The finished goods were shipped to retail clients, and it was at this time that the duty was paid – except now that the components had been transformed to finished goods, no duty was due.

"We were able to save millions of dollars annually, and recouped our initial investment within six to twelve months as I recall," says Kurt Nuehring, the IT manager for Imation who helped develop a software application to manage compliance within the FTZ. Mr. Nuehring says that while Imation spent a significant amount on outside help to setup the FTZ, the first year savings more than paid for this one-time cost.

As far as ongoing costs are concerned, it initially took two to three full time employees to administer the FTZ, but these salaries were completely offset by the duty savings.

Fast ROI

"We were able to save millions of dollars annually, and recouped our initial investment within six to twelve months,"

~Kurt Nuehring, IT Manager, Imation Corporation

Developing and Executing a Strategy

Achieving savings such as those realized by Imation requires the development of a detailed plan, followed by execution across multiple departments within an organization. The next company profiled by Commonwealth undertook this endeavor in an effort to cost justify some larger supply chain objectives, and was highly successful in turning the plan into reality.

Case Study: Electronics Component Manufacturer Saves over $2 Million Dollars

Project Goals

In 2004 a consumer electronics manufacturer was seeking to reduce airfreight costs and be more responsive to customer demand. Their existing supply chain involved manufacturing goods in Asia, and shipping them to a distribution center in the mid-western region of the United States in semi-finished form. In the distribution center, some final assembly and configuration was performed prior to shipping the goods to retail stores. The company was essentially following a very limited postponement strategy with a build-to-forecast model. Freight costs from Asia to the U.S. were very high, since the goods – nearly in finished form-were very bulky and required excessive packaging materials. Manufacturing times were long, and most of the goods had to be shipped via expensive air-freight to arrive at the distribution center on time.

Performing more of the manufacturing process in the United States would offer several benefits:

- ***Greater demand responsiveness:*** The company could manufacture goods closer to the point of demand, and get the right product on the store shelves without having to resort to expensive air freight.
- ***Reduced inbound freight costs:*** The company could import component parts rather than semi-finished goods. The components would require less packaging and would be less time sensitive. International freight could be shipped via ocean rather than air, greatly reducing inbound costs.
- ***Reduced inventory carrying costs:*** Less safety stock would need to be carried in the distribution center since the manufacturing-to-distribution cycle times would be reduced. The company would, in effect, delay the differentiation of the finished goods until a live order from a retailer was received and move to more of a "build-to-order" model.
- ***Reduced obsolescence:*** Since forecast accuracy would improve, less of the wrong product would be manufactured and have to be sold-off below cost.

Project Goals:

1. Improve demand responsiveness
2. Reduce inbound freight costs
3. Reduce inventory carrying costs
4. Reduce obsolescence

Challenging Factors

However, increasing the level of manufacturing performed in the U.S. posed some prohibitive challenges, unless the company made some fundamental changes to their trade status. These challenges included:

- ***Increased labor costs:*** The significant wage differential between the U.S. and Asia threatened to offset any savings in freight.
- ***Increased duty costs:*** By de-coupling the production materials, the company would create a significant duty liability that did not previously exist. The company's semi-finished goods were not subject to duty, but with the proposed change, each individual component would be required to pay the ad valorem duty amount associated with the product, value and country of origin. At the time, the component parts such as PCB boards, casings and USB and 1394 cables carried duty ranging from 3.5% to 5%; these increased duties would amount to nearly $1 million dollars annually.
- ***Increased Merchandise Processing Fees (MPF):*** Each shipment from asia was subject to a minimum fee of $25 per entry and a maximum fee of $485 per entry, payable to Customs & Border Protection (CBP). So essentially, any House Airway Bill (HAWB) or consolidated airway bill would have MPF assessed to it. Nearly every shipment at the time was maxing out the MPF fee at $485. This was costing the company nearly $375,000 per quarter, nearly $1.5 million annually.

Challenges:

1. Increased domestic manufacturing costs
2. Increased duty costs
3. Increased MPF

How an FTZ Changes the Game

Company A determined that achieving FTZ status would offer their company the following benefits, which would offset the affect of the challenging factors noted above:

- ***Deferred duty:*** Under a Foreign Trade Zone, duties are deferred until the product is shipped out of the FTZ and into the commerce of the U.S. The duty liability still exists, but it is deferred up to consumption (very similar to a Vendor Managed Inventory strategy).
- ***Reduced or eliminated duty:*** For Company A however, operating in an FTZ carried an even greater benefit – the ability to eliminate duty entirely. Under the FTZ, umbrella, a company could apply for Manufacturing Authority and have the option of paying the duty rate at either the component or the finished goods level. Remember – Company A's finished goods were not subject to duty, so gaining Manufacturing Authority within the FTZ would

allow the company to avoid paying nearly $1 million annually in duty. (Obtaining Manufacturing Authority is a complex process beyond typical FTZ activation.)

- ***Reduced MPF:*** Rather than paying a $485 MPF on nearly every shipment that was imported, under an FTZ, MPF is only paid once at the weekly level. All product that enters an FTZ is considered bonded material and not within the US commerce. Any material that ships throughout the week is calculated as one entry into the commerce of the United States and assessed one MPF charge of $485. Essentially, MPF is capped at $25,220 per year ($485 X 52 weeks). The savings for this company would be nearly $1.5 million annually.

  Some companies that are evaluating the benefits of an FTZ quickly dismiss FTZ savings because they believe that their government-sponsored consolidated entry program will give them the same benefit. This is a common misconception. While being on a consolidated entry program is extremely important, the savings are not fully optimized until a company is capping their MPF through the distribution program of the FTZ. Companies that are not on consolidated shipping will realize even bigger savings when capping their MPF through the zone. As mentioned before, MPF is only paid at the weekly level once all shipments are captured. A company essentially hands US Customs one House Airway Bill with all of their shipments for the week along with a check for $485. Many companies implement FTZs for the MPF benefit alone.

- ***Inventory tax exemption:*** Company A was located in a state that charged inventory property tax, regardless of whether the inventory was in finished-goods or component form. Avoiding this tax could result in substantial annual savings. Some states or municipalities offer some limited tax exemptions that do not require FTZ status, but often these have strings attached. For example, some states offer tax exemption providing the goods are exported out-of-state within a certain period of time. For Company A, obtaining FTZ status would allow all goods in the distribution center to be tax exempt in perpetuity, regardless of their state (components, finished goods, etc.).
- ***Faster customs clearance:*** One of the added perks that accompanied the other savings was direct delivery. Direct delivery is a procedure for the delivery of merchandise to a zone without prior approval and application on a CF214. Direct delivery trumps "Wheels Up" clearance and enables the zone operator to retrieve their product anywhere from

eight to twenty-four hours quicker than standard customs clearance. The only thing to delay a shipment is a random security inspection - not even an FTZ activation can exempt a company from that.

Executing the Plan

Company A chose to obtain Sub-Zone designation and began the FTZ conversion process. The benefits of the FTZ status were realized in three phases.

- ***Phase 1: Sub-Zone Status:*** When sub-zone status was granted, the company began to immediately realize the benefits of deferred duty, MPF savings, and inventory tax exemption.
- ***Phase 2: Manufacturing Authority:*** Company A next had to apply for Manufacturing Authority with the U.S. government. Manufacturing Authority is the ability to turn raw materials in to finished goods; once granted this authority, a company has the option to pay duty at either the finished goods or raw material duty rate. Since product is brought in to the zone in bonded status, it does not enter the commerce of the US in a raw material state. It is manufactured and enters U.S. commerce in a Finished Goods state. In the case of Company A, since their finished goods were duty free, this rate was chosen. Manufacturing Authority is very similar to the principle of "substantial transformation", but instead of following a 35% transformation compliance it follows "essential character" change compliance. The printed circuit boards, casings, and cables undergo an "essential character change" to a consumer electronics finished goods product which is then duty free.
- ***Phase 3: Supply Chain Realignment:*** When Company A added up the savings from duty deferral/exemption, MPF savings, Inventory Property Tax it no longer made sense to manufacture that product line overseas. The manufacturing operations could be safely transferred to the United States, allowing the company to realize additional savings in inbound freight. Immediately on completion of Phase 2, the company began shuttering it's manufacturing operations in the far east and expanded their footprint within the U.S. In total, over 300 jobs were created. Many of these jobs were not just direct labor jobs, but good old fashioned manufacturing positions such as Production Planners, Procurement Specialists, Supplier Quality Engineers, Industrial Engineers, Production Managers and Supervisors along with Supply Chain Managers and Operations Specialists.

Constantly Changing Regulations

CBP regulations are constantly changing – companies beginning to investigate obtaining this status should first research any recent modifications that have been made.

*At the time that Company A was seeking FTZ status, the application process was considerably more cumbersome that it is at the time of this publication. Several years ago, a company would have to embark on a lengthy application process with the federal government for Sub-Zone status, which was expensive and time consuming. Today, companies now have the option of working with the FTZ grantee and applying for an **Alternate Site Framework** (ASF) designation, an expedited process which often costs less than obtaining a full Sub-Zone designation.*

The Results

Company A was able realize the following results from successfully executing their FTZ plan:

- 300 offshored jobs were brought back to the United States
- Reduced inbound freight
- Zero duty liability (avoided additional $1 million annual cost)
- $400,000 annual savings in inventory property tax exemption
- $1,500,000 annual savings in reduced MPF

Scalable Benefits

Case Study: Telecom Manufacturer Saves Nearly $10 Million Annually Using FTZ Strategy

Do the savings from FTZ allocation scale in proportion to a company's revenues? Generally, yes. Consider the case of a very large wireless telecommunications equipment manufacturer with over $20 billion in annual revenues – called Company B for the purposes of this report.

In 2005, the company already had a postponement model in place similar to the one which was created by Company A. However, this operation was not nearly as profitable as it could be due to the fact that it was taking place in a non-bonded facility with component imports subject to a steep duty. MPF costs were also excessive; the company had several business units, some of which already utilized a CBP consolidation programs, and others which did not.

Company B happened to already be in the footprint of an existing FTZ, but they had never activated their FTZ status. They followed the necessary processes to perform the activation and they were also granted Manufacturing Authority which enabled them to completely avoid paying duty on their product (very similar to what Company A did). Due to their large volume of business, Company B's savings from their FTZ strategy were staggering:

The Results

- Duty exemption savings: $6,900,000
- MPF savings: $2,500,000
- Inventory property tax savings: $500,000
- **Total annual savings: $9,900,000**

Achieving and Maintaining Compliance

Companies should not get so caught up in the potential savings from utilizing an FTZ that they fail to give proper attention to maintaining compliance. Like most government sponsored programs, the inability to produce proper documentation and disregard for compliance can result in exclusion from the program, heavy assessment of duties and fines, and loss of operating rights. One difference between FTZ programs and other government-sponsored export programs is that the fines can substantially greater. There are documented cases up companies being levied fines of nearly $20 million dollars, in addition to losing their FTZ operating rights.

Companies embarking on an FTZ activation project do well to have the right advisors to help them along the way. Legal counsel is very important when beginning such an endeavor, but to be successful, legal expertise must be paired with strong operational experience to determine how to maintain compliance and most efficiently manage the manufacturing and distribution within an FTZ environment. Such experience can be obtained by hiring staff members with direct FTZ experience, or by partnering with third-party logistics providers (3PLS), consulting firms, and other industry experts for assistance.

While it may be valuable for a company's regulatory compliance department to lead this initiative, specific operational controls must be put into place to manage the complex intricacies of compliance on a minute-by-minute basis. Even the most basic staff members must be made aware that they are now operating in a Foreign Trade Zone, and educated on the implications of this for the company and the economy as a whole. For example, in an FTZ the Receiving department must just as familiar with concepts like "Direct Deliveries" and forms like the CF3461 document as they currently are with simple Bills of Lading and vendor purchase orders.

Additionally, every associate needs to be made aware that the distribution center is now a bonded warehouse and anything removed from this facility is a felony – a federal crime punishable by two years in prison. An activated warehouse falls in to the jurisdiction of Immigration and Customs Enforcement (ICE) and not the local authorities. This can make for a great deterrent in simple theft and pilferage within the warehouse. Stealing a $3.50 cell-phone battery could now land an employee in jail for 2 years and a $250,000 fine.

Conclusions

Most of the companies cited in this report obtained FTZ designation several years ago, when the regulatory environment was more onerous than it is today. Many of these companies, were they to undertake the same project now, could have done so with even less upfront cost than they actually experienced. The business case has only improved for obtaining FTZ designation.

Companies can often achieve FTZ status quickly and recoup their investment costs within less than a year. The savings can be substantial, and can come from a variety of different sources.

Companies that should consider obtaining FTZ status include:

- Companies that import goods with a high duty rate
- Companies with five or more import shipments per week
- Companies that operate in states where inventory is subject to a property tax
- Companies seeking to implement postponement strategies and perform final manufacturing processes within the U.S.

Companies contemplating this course of action should seek sound advice from advisors that have both the compliance as well as operational experience to evaluate the benefits of FTZ status and to develop a realistic attainment strategy.

Macroeconomic factors have made offshore manufacturing more challenging than ever. The Foreign Trade Zone program offers options to companies seeking to make structural changes in their supply chains without giving up all of the savings to trade compliance costs.

About the Authors

Ruben Alvarado is the primary author of this report. Mr. Alvarado is a staff consultant for Commonwealth Supply Chain Advisors with nearly 20 years of experience helping companies optimize their supply chains. Much of his experience is in the third-party logistics provider space, and in that capacity he has helped numerous companies build the business case for obtaining FTZ designation, and actually setting up and commissioning bonded facilities. He has championed over 10 black belt projects and is an APICS-Certified Supply Chain Professional (CSCP).

Ian Hobkirk is the co-author of this report. He is the founder and Managing Director of Commonwealth Supply Chain Advisors. His 15-year career has been spent helping companies improve their supply chain efficiency through a variety of strategies. He is a former supply chain industry analyst with The AberdeenGroup, and is a frequent contributor to publications such as DC Velocity, The Journal of Commerce, and Modern Materials Handling.

About Commonwealth Supply Chain Advisors

Commonwealth Supply Chain Advisors is an independent consulting firm; we help companies measure their supply chain performance and provide guidance for how to improve it. We are not affiliated in any way with supply chain software providers, third-party logistics providers (3PLs), freight brokers, or carriers.

Commonwealth takes an unbiased approach to supply chain improvement, and helps companies determine whether the path to improvement lies through optimized processes, supply chain technology, logistics outsourcing, or some combination of the three.

Commonwealth can help your company determine the savings potential (if any) from attaining FTZ status, and can help navigate through the regulatory aspects of setting up FTZ activation.