

# THINK Executive

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The  
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Institute  
– Asia  
Pacific

## PATTERNS AND TRENDS ON TRANSSHIPMENT IN SINGAPORE



A Collaboration Between



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**The  
Logistics  
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Pacific**

# **PATTERNS AND TRENDS ON TRANSSHIPMENT IN SINGAPORE**

**A THINK Executive Whitepaper**



## EXECUTIVE SUMMARY

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This study was initiated to identify the key competitive factors for Singapore to be a transshipment hub. It is limited in scope to the following types of transshipment: Air to Air; Air to Sea; Sea to Air; and Sea to Sea. The study is qualitative in approach by interviewing companies to identify key factors to become a competitive transshipment hub, what is Singapore's level of competitiveness, who are Singapore's main competitors in Asia Pacific in providing transshipment and how to improve the competitiveness of Singapore as a regional transshipment hub.

The following trends and patterns in transshipments in this region were noted:

The most common form of transshipment is sea-to-sea, followed by sea-to-air. Sea-to-sea is the cheapest form of transshipment but also takes the most lead time. Non-perishable, large volume, heavy weight or low value commodities normally make use of sea-to-sea transshipment. Examples of such commodities include textile, furniture, bulk chemical and other building materials. According to Yearbook of Statistics Singapore 2009, 47% of total export volume in Singapore is from re-export or transshipment and most of them are transshipped by sea.

In the case of sea-to-air transshipment, it attempts to reduce the lead time in the final leg(s) by using air transportation but with higher overall transportation cost. The highly efficient airport operations and customs clearance make such intermodal transshipment viable for bulk breaking, labeling and packaging. Examples of commodities using such transshipments include automotive spare parts (SIC Code 3714) from Europe to Asia and Integrated Circuits (SIC Code 3674) from Indonesia to Japan.

In the case of air-to-air transshipment, it is mainly used for time sensitive, high value commodities such as jewelry (SIC code 3911), fabricated textiles products (SIC code 2399), and pharmaceutical products (SIC code 5122). Air-to-sea transshipment is apparently not in practice or unknown of according to the companies interviewed.

There are some commodities that show growing demand for transshipment in Singapore such as petroleum products (SIC code 5172) and beverages (SIC code 2086) while others are unchanged or possibly declining such as textiles

products and disk drives (SIC code 5045). Some of the third parties logistics (3PL) in Singapore are, however, exploring new transshipment business models as their current business modes are declining.

Some of the recommendations to sustain and grow transshipment activities in Singapore include:

- Explore and enhance the sea-to-air transshipment process instead of direct air export with the shippers to take advantage of the low sea freight charges and overcome the limited air freight capacity (cargoes under 45kg) in this region according to some of the interviewees.
- Introduce new services during transshipment such as consolidation of raw materials in the hub, compression of garments for air freight and pre-customs clearance to shorten transshipment processing.
- Explore new services for some commodities such as beverages, integrated circuits and petroleum products that show sign of increasing re-export volumes for air transshipment.
- Promote better linkages with other ports and infrastructures for sea-to-air transshipment to increase sea-to-air transshipment volume. For example, to increase its air transshipment activities, more can be done to attract more airlines and freighters to Singapore to increase its overall air freight capacity.

Upgrade the productivity of the logistics industry through training and the use of IT to address manpower shortage and high operating costs. For example, our [efreight@Singapore](mailto:efreight@Singapore) is a good initiative by Civil Aviation Authority of Singapore (CAAS) to explore the use of standard messages from The Air Transport Association (IATA) for document exchange between shippers, airlines and logistics providers that could improve the productivity among the air cargo community.

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## INTRODUCTION

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Singapore, with limited natural resources and land, was able to leverage on its strategic location to offer both air and sea port services that support international trade. Transshipment of cargoes into and out of Singapore becomes an important service that it can provide to traders and manufacturers to move materials or semi-finished goods into Singapore for value-adding services and then re-exporting to the region. Singapore's transshipment value in a broad sense is around 47% of the total export volume in the past few years. *(Source: Yearbook of Statistics Singapore, 2009).*

The scope of this study is to identify the key competitive factors that make Singapore a competitive transshipment hub. The scope of the paper is limited to the following types of transshipment: Air to Air; Air to Sea; Sea to Air; and Sea to Sea. While transshipment via trucking and rail connections are also important, they are excluded due to the limited information available and time.

The paper is qualitative in approach supplemented by interviewing companies to identify key factors to become a transshipment hub competitive, what is Singapore's level of competitiveness, who are our main competitors in Asia Pacific in providing transshipment and how to improve competitiveness of Singapore as regional transshipment hub. The paper aims to provide a preliminary macro perspective of transshipment in Singapore with derived recommendations to improve its transshipment activities.

## OBJECTIVES

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The objective for this study is to understand Singapore's competitiveness for transshipment by examining the following questions:

- 1) What does 'competitiveness' mean for transshipment? How do different stakeholders define competitiveness of a transshipment hub?
- 2) Who are the major hubs for transshipment? What factors give these hubs a competitive advantage over Singapore?

- 3) What makes Singapore a competitive transshipment hub? How has transshipment in Singapore changed over the past 5 years? What are the internal and external factors for Singapore that have an impact to its competitiveness?
- 4) What schemes or government policies can promote a pro-business environment for transshipment?
- 5) What actions (short and long term) are necessary to improve competitiveness of Singapore as a transshipment hub? What resources and capabilities do we need to sustain our competitiveness?

## METHODOLOGY

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Semi-structured face-to-face interviews are conducted with eight key companies involved in regional or global transshipment to assess the current situation of Singapore transshipment business. In addition, three more companies participated in the study by questionnaires. This input supplemented our desk research and affirms some of the underlying assumptions.

The participant group makeup is as follows:

- Large and small shippers or cargo owners (e.g. manufacturers and trading companies) in industries handling high volume cargoes and involved in transshipment via Singapore.
- Air and ocean freight forwarders
- Logistics service providers (3PLs)
- Logistics and supply chain related associations in Singapore

It is important to note that shippers or cargo owners who are often located outside of Singapore are the main decision-makers to determine the location for transshipment activities. But they will still consult 3PLs for cost and lead time comparison before making the final transshipment decision. Thus views from these interviews involving 3PLs are thus still representative of shippers in understanding transshipment pattern in Singapore. In conjunction with the

interviews, we perform Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis based on these inputs from the group, supplemented by statistics from relevant government agencies and other academic resources.

## PATTERNS AND TRENDS ON TRANSSHIPMENT IN SINGAPORE

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Transshipment can come in several forms.

- Overseas cargoes transiting at the ports or free trade zone for a short period of time before exporting to another country. More than 90% of the containers transit at Port of Singapore before they are being picked up by another freighter or vessel. Such transiting cargoes are not captured and reported to the customs.
- Overseas cargoes are stored in free trade zone while waiting for customer order and later exported to the overseas customer. Quite a number of overseas companies have adopted this form of transshipment by centralizing their inventory in Singapore and distribute their products within a day in respond to overseas orders.
- Re-exports is another form of transshipment where overseas cargoes undergo value adding (such as re-packaging bulk breaking, sorting or grading, marking and labeling) that do not change their country of origin and later exported to other countries.

In this study, we examine the latter two forms of transshipment. In fact, transshipment and re-export are often used interchangeably among the interviewees. National level statistics has shown that re-exports continue to be an important part of Singapore's trade, taking up 48 per cent of Singapore's total exports in 2008 (*Source: Yearbook of Statistics Singapore, 2009*). Most of the re-exports of Singapore is related to regional economies such as Malaysia and China as shown in following Table 1, where all re-export trade partners are ranked according to re-export value.

Rank	Country	% Re-export to Total export	Re-export value S\$ Million
1	Malaysia	58.14%	33,509
2	Indonesia	63.68%	32,032
3	Hong Kong	50.91%	25,213
4	China	54.27%	23,779
5	United States	37.87%	12,668
6	Japan	44.95%	10,558
7	Thailand	55.95%	10,414
8	South Korea	59.68%	10,336
9	India	55.36%	9,320
10	Vietnam	57.43%	7,052
11	Taiwan	49.03%	6,576
12	Australia	33.54%	6,553
13	Germany	50.79%	4,763
14	Philippines	44.72%	4,590
15	Netherlands	38.99%	3,984
16	United Arab Emirates	63.04%	3,693
17	United Kingdom	23.88%	2,217
18	France	33.00%	1,929
19	Brazil	50.78%	1,175
20	Bangladesh	59.99%	1,057

Table 1: Re-exports to Total exports ratio from Singapore in 2008, the top 20 countries  
(Source: Yearbook of Statistics Singapore, 2009)

Overseas shippers sending cargoes to Malaysia and Indonesia have been using Singapore as transshipment hub for sometime. Re-exports to Malaysia (see Figure 1) has slowed down from 2006 onward but still on an upward trend whilst Indonesia (see Figure 2) is increasing at a relatively faster pace.

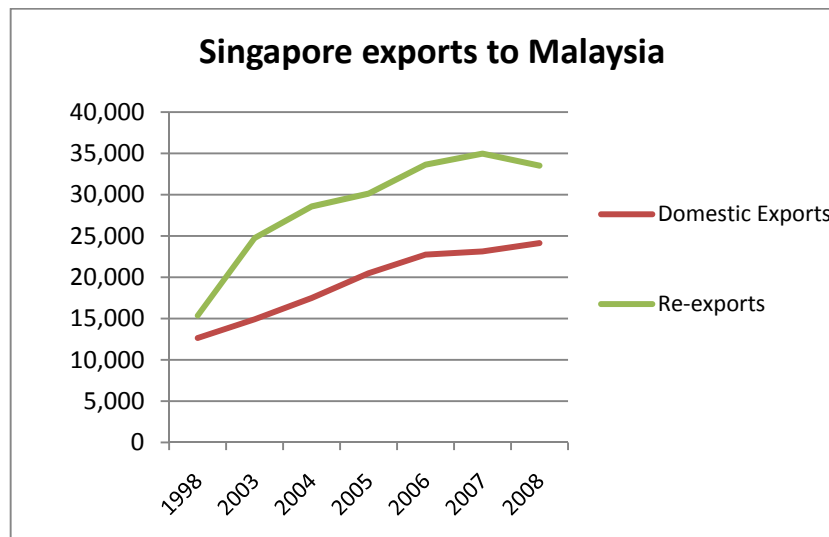


Figure 1: Singapore exports to Malaysia in \$m  
(Source: Yearbook of Statistics Singapore, 2009)

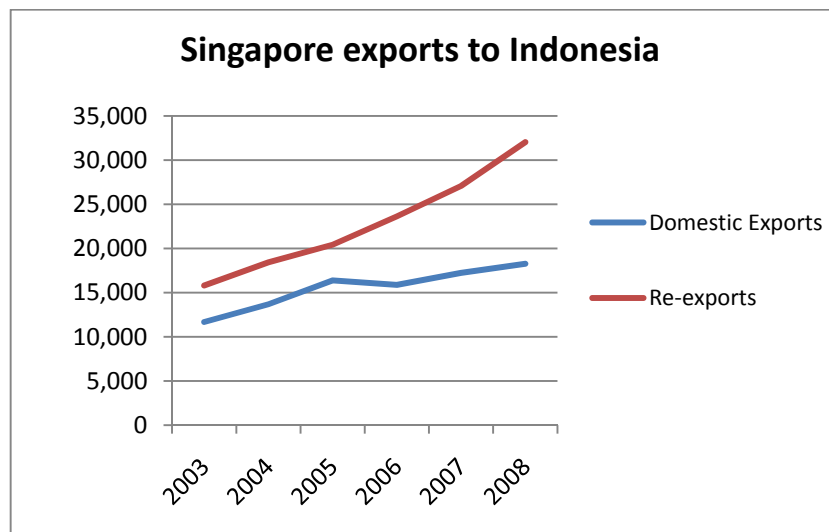


Figure 2: Singapore exports to Indonesia in \$m  
(Source: Yearbook of Statistics Singapore, 2009)

In terms of re-exports to growing economies, there is an upward trend from year 2000 onward but slows down as it approaches year 2008. For examples, re-export to China, India and Vietnam (see Figures 3, 4 and 5) overtake domestic exports from year 2006 onward.

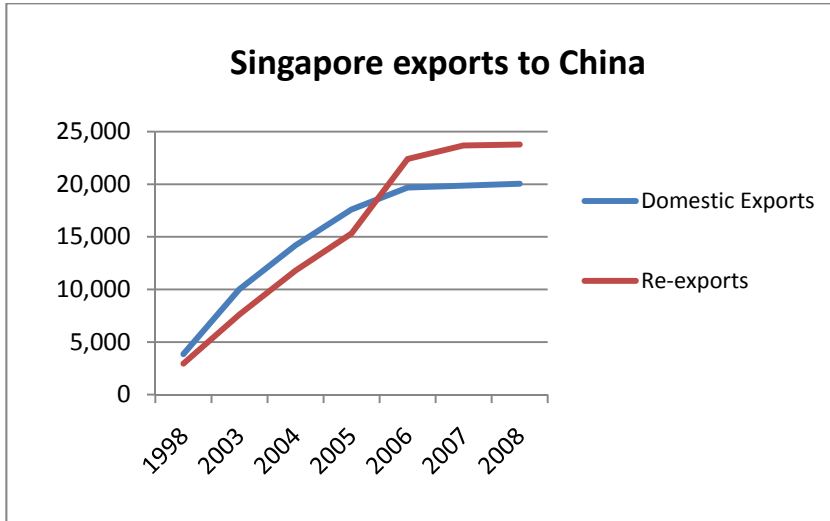


Figure 3: Singapore exports to China in \$m  
(Source: Yearbook of Statistics Singapore, 2009)

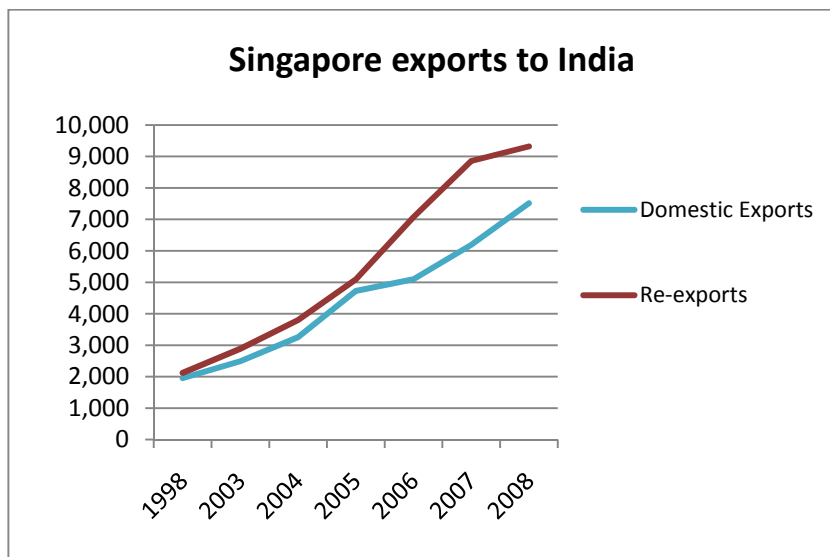


Figure 4: Singapore exports to India in \$m  
(Source: Yearbook of Statistics Singapore, 2009)

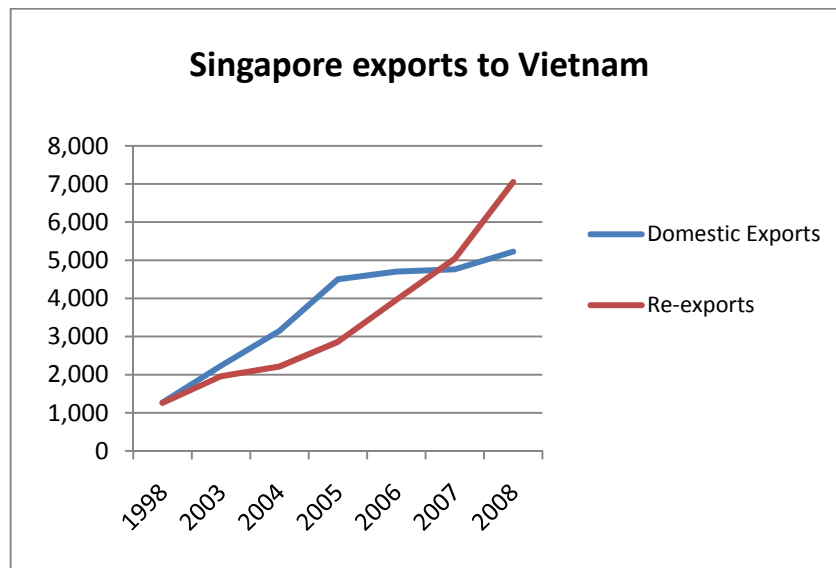


Figure 5: Singapore exports to Vietnam in \$m  
(Source: Yearbook of Statistics Singapore, 2009)

On the other hand, re-export and domestic export to USA are falling after year 2006 as shown in Figure 6.

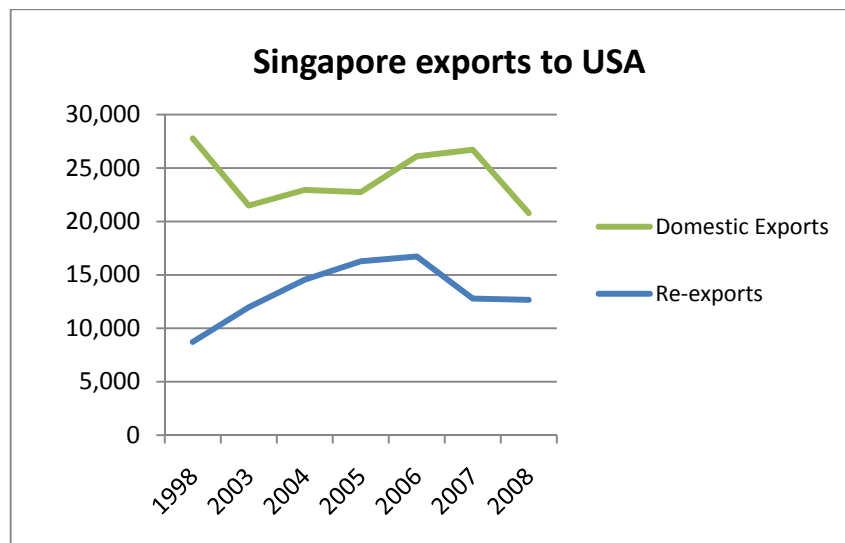


Figure 6: Singapore exports to the USA in \$m  
(Source: Yearbook of Statistics Singapore, 2009)

In summary, there are signs of upward trends in transshipment activities in emerging economies while transshipment activities with top three partners remain stable.

The most common form of transshipment or re-export is sea-to-sea by volume, followed by sea-to-air according to the interviewees (see Table 2). Sea-to-sea is the cheapest form of transshipment but also takes the longest lead time. Non-perishable, large volume, heavy weight or low value commodities normally make use of sea-to-sea transshipment. Examples of such commodities include textile, furniture, bulk chemical and other building materials. According to the Yearbook of Statistics Singapore 2009, 47% of total export volume in Singapore is from re-export or transshipment and most of them are transshipped by sea.

Transshipment		To	
		Air	Sea
From	Air	\$	N.A.
	Sea	\$\$	\$\$\$

Table 2: Different form of transshipment

In the case of sea-to-air transshipment, it attempts to reduce the lead time by using air transportation but with higher overall transportation cost. The highly efficient airport operations and customs clearance make such transshipment viable for bulk breaking, labeling and packaging. Examples of commodities using such transshipments include automotive spare parts (SIC Code 3714) from Europe to Asia and Integrated Circuits (SIC Code 3674) from Indonesia to Japan.

In the case of air-to-air transshipment, it is mainly used for time sensitive, high value commodities such as jewelry (SIC code 3911), fabricated textiles products (SIC code 2399), and pharmaceutical products (SIC code 5122). Air-to-sea transshipment is not in practice or unknown of according to the companies interviewed.

In terms of both air and sea transshipment routes via Singapore, the most common ones are shown in Table 3 based on the interviewees past experience.



From	To	Examples of commodities
North Asia countries (e.g. China, Korea, Japan)	South Asia countries (Malaysia, Thailand, Indonesia, Vietnam)	Electronics components (SIC code 3679) and Textiles products (SIC code 2399).
South Asia countries	North Asia countries	Seafood (SIC code 2092), chemicals (SIC code 2819), electronics components (SIC code 3679), minerals (SIC code 3295)
Asia countries	USA or Europe or Australia	Textiles product (SIC code 2399), computers (SIC code 3571), tropical fish (SIC code 5199)
USA or Europe	Asia countries	Textiles product (SIC code 2399), automotive parts (SIC code 3089), electronic parts (SIC code 5065)

Table 3: Different transshipment routes via Singapore.

Singapore’s overall re-export values show an increasing trend from 1998 to 2008 (see Figure 7).

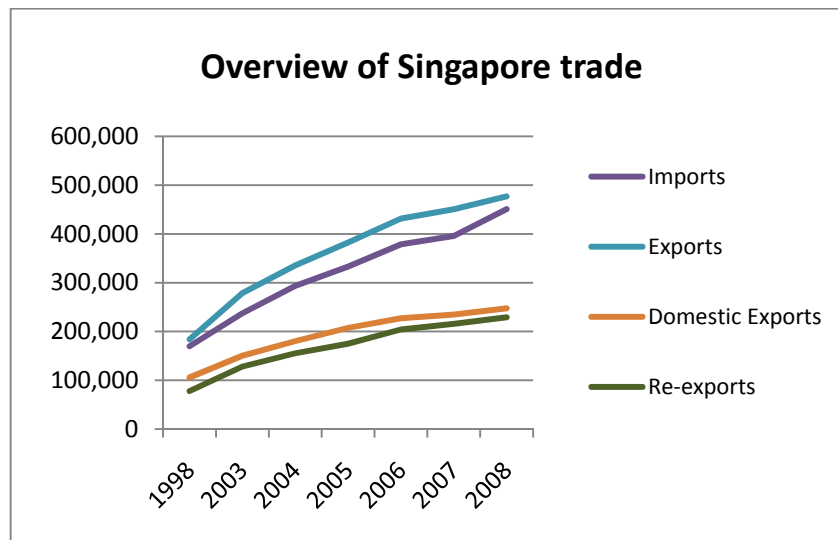


Figure 7: Singapore exports trend in \$m (Source: Yearbook of Statistics Singapore, 2009)

To further understand the trend of re-export in some specific industries, we examine re-export for a few key commodities. For the food industry, we observe a rapid rise of beverage re-exports as well as the sharp decline of

tobacco re-exports possibly due to higher import duties imposed by Singapore customs (see Figure 8).

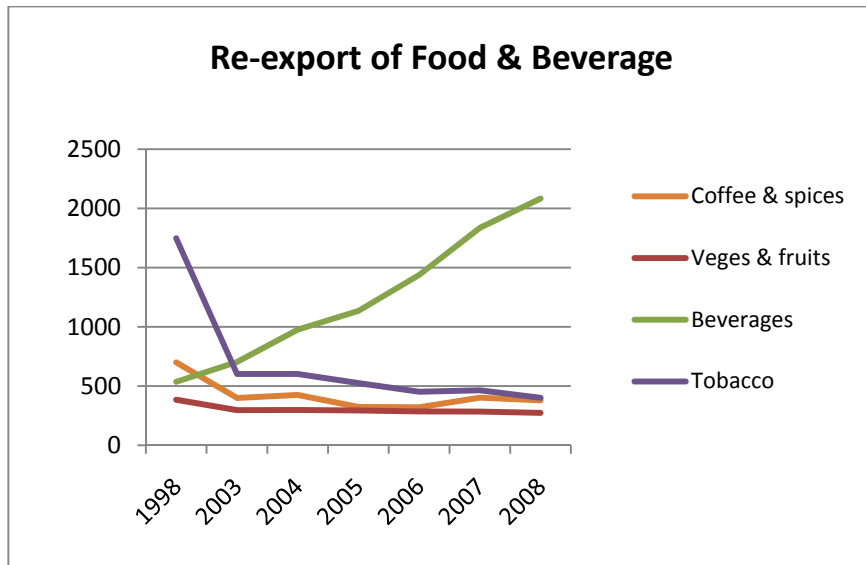


Figure 8: Re-export of Food and Beverage in \$m  
(Source: Yearbook of Statistics Singapore, 2009)

For the chemical industry, we observe a sharp rise of re-export for petroleum related product as well as a steady increase of chemical product re-exports. Most of the transshipment is sea-to-sea as shown in Figure 9.

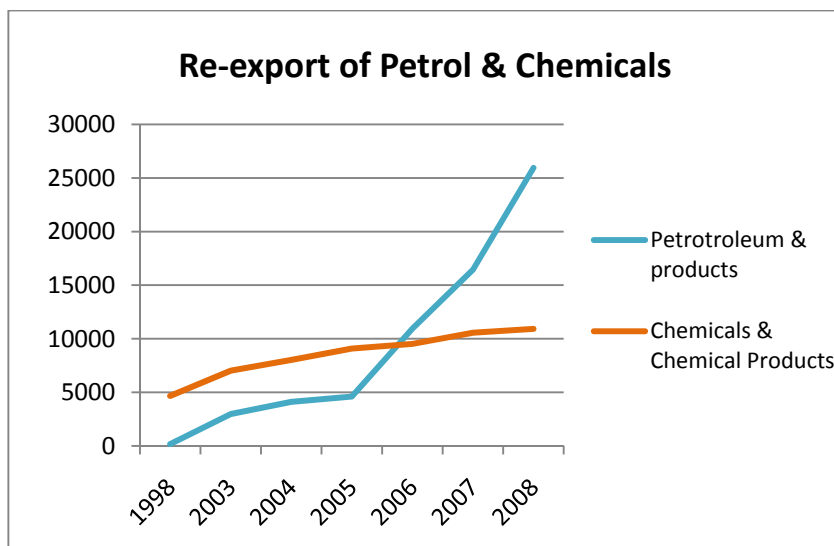


Figure 9: Re-export of Petrol and Chemicals in \$m  
(Source: Yearbook of Statistics Singapore, 2009)

In case of re-exports for electronics products, there is a sharp increase for integrated circuits while PC parts and telecom equipments show moderate growth (Figure 10). On the other hand, there is a gradual decline of disk drives re-export as the bulk of manufacturing have shifted to China.

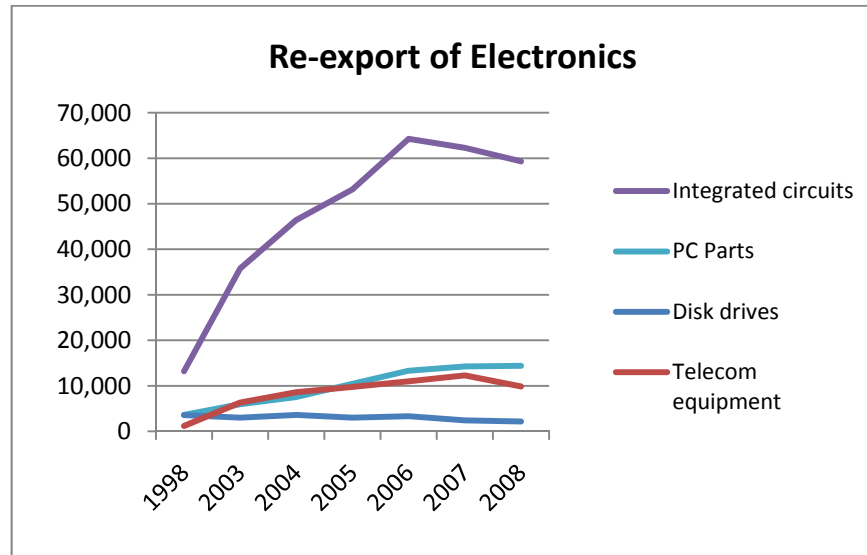


Figure 10: Re-export of Electronics in \$m  
(Source: Yearbook of Statistics Singapore, 2009)

Similarly, looking at manufactured goods, there is a sharp increase for iron & steel, but a gradual decline of textiles in re-exports volume as shown in Figure 11.

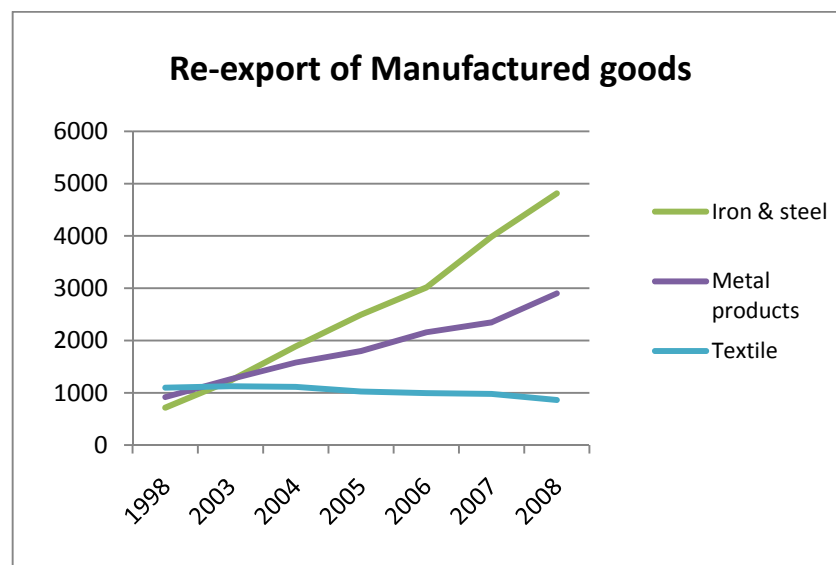


Figure 11: Re-export of Manufactured products in \$m  
(Source: Yearbook of Statistics Singapore, 2009)

In summary, while some commodities (e.g. electronic parts, food etc.) show signs of declining trends, other commodities are still showing upward trends in transshipment activities for Singapore.

## SWOT ANALYSIS FOR SINGAPORE TO BE A LEADING TRANSSHIPMENT HUB

It is observed that the development and provision of advanced logistics services varies from country to country. The lack of such logistics services in certain developing countries can be a major deterrent for potential companies wishing to establish a market presence. For this reason, governments are constantly reviewing their existing policies so as to not unduly restrain the development of the logistics sector.

Singapore's key strengths are its world class infrastructure and connectivity (e.g. PSA Singapore and Changi Airport). These make Singapore world's leading logistics hub. Based on inputs from the companies interviewed, Singapore's transshipment is confronted with both challenges and opportunities, as presented in the Table 4.

Strengths	Weaknesses
<ol style="list-style-type: none"> <li>1. Strong physical infrastructure.</li> <li>2. Good connectivity to major trading hubs and manufacturing bases (by both air and sea).</li> <li>3. Major shippers and logistics service providers have their regional headquarters and offices in Singapore.</li> <li>4. Stable political, economic and social conditions</li> <li>5. An educated and skilled workforce.</li> <li>6. A strong legal system and business friendly tax structure.</li> <li>7. Government is pro-active in opening doors for businesses through bilateral and multilateral initiatives, e.g. FTAs.</li> </ol>	<ol style="list-style-type: none"> <li>1. Relatively high costs of operation (especially land rental and wages) as compared to neighboring countries</li> <li>2. Small geographic space and limited domestic market.</li> <li>3. Industry is fragmented and lacks scale, with very few global players with global aspirations.</li> <li>4. Shortage of skilled and experienced logistics professionals.</li> <li>5. Inadequate technological capabilities to carry out a wide range of SCM activities.</li> <li>6. Lack of collaboration between different players in a supply chain, especially SMEs.</li> </ol>

Opportunities	Threats
<ol style="list-style-type: none"> <li>1. More bi-lateral agreements between Singapore and other developing economies.</li> <li>2. Explore other form of transshipment besides sea to sea.</li> <li>3. Leverage on Singapore's good connectivity for the Asia Pacific region to provide total transshipment services to shippers or cargo owners</li> <li>4. Tap on offshore trade conducted by Singapore-based trading companies, which is estimated at US\$120b.</li> <li>5. Establish a reputation as a secure and reliable transshipment hub.</li> </ol>	<ol style="list-style-type: none"> <li>1. Relocation of manufacturing and distribution bases to other regional hubs (e.g. China, Vietnam, etc).</li> <li>2. Other governments are aggressively improving their logistics infrastructure and marketing themselves as logistics hubs, giving rise to intense competition.</li> <li>3. Technological advances such as the increase in size of ocean liners and jetliners may result in vessel / aircraft operators bypassing Singapore if the trade route becomes too 'thin'.</li> <li>4. Larger economies are shipping directly to their destination instead of transshipment.</li> </ol>

Table 4: SWOT analysis of Singapore as a transshipment hub.

The landscape of transshipment is changing as trade pattern changes with time and for Singapore to sustain its transshipment activities, it is critical to obtain an updated view on the key factors influencing companies to choose Singapore as the regional transshipment hub.

For example, with more countries signing bi-lateral FTAs, this would possibly result in direct shipments between these countries instead of via transshipment.

## SUMMARY OF INTERVIEWS WITH LOGISTICS COMPANIES

Eleven companies are interviewed or surveyed consisting both of SMEs and MNCs, specializing in sea and air transshipments. A summary of the interviews are listed in the following five sections.

## 1. Key factors to become a regional transshipment hub

All interviewees are aware of the key factors to become a regional transshipment hub. The interviewees summarized the following key factors for transshipment hub as:

- a. *Fast turnaround time including custom clearance and port handling.*  
Some of the neighboring countries are not conducive for re-export with very cumbersome procedures. On the other hand, Singapore is very efficient in customs clearance in sea port and airport. One can get its trade permit approved in 15-20 minutes as it is fully electronic. Our neighboring countries still require manual input and hardcopy for processing, and thus take much longer time for clearance. Ports there typically take a few days to clear a container from customs while it takes only half a day in Singapore.
- b. *Good connectivity to all other major ports in the world.*  
On connectivity, a neighboring port fails to attract more shipping lines to berth at their port and it does not encourage Less Than Container Load (LCL). Its connectivity is not comparable to Port of Singapore where it is connected to almost all major ports in the world.
- c. *Government policy to support transshipment businesses.*  
Singapore has developed various schemes such as 3PL Scheme (source: IRAS) to defer the Goods and Services Tax (GST) payment and support transshipments. Companies are able to consolidate cargoes out of the free trade zone and then re-export later. In contrast, in neighboring countries such as Malaysia, it is impossible to move goods out of free trade zone for re-exporting without paying taxes. As the result, many shippers and traders are still using Singapore as a distribution hub for their products and spare parts.

## 2. Motivations for transshipment via Singapore

*LCL (Less than Container Load) consolidation*

- In sea-to-sea transshipment, the main reason for transshipment in Singapore is due to low shipping volume from some of the countries in South East Asia. For example, the shipping volume from customers in

Johor Bahru is not large enough to fill up a full container for their destination in Europe or the US. Furthermore, if they are using a local port, they may have to wait for about two weeks for their cargoes to be loaded into a vessel. By leveraging on LCL in Singapore, the cargoes can ship it out within a few days. However, such transshipment is less likely to happen for large countries, e.g., China can ship directly to US due to high shipping volume. It is applicable for smaller countries, e.g., goods from China to Indonesia may need transshipment in Singapore as there may not have enough volume for FCL direct shipment from China to Indonesia.

#### *Raw materials kitting*

- Besides such LCL transshipment, another type of transshipment is the consolidation of goods from multiple suppliers in 3PL's warehouse and then ship to a single customer, which is common in the electronics industry.

#### *Limited capacities to designated countries*

- In air-to-air or sea-to-air transshipment occurs when direct air freight capacities between two locations are limited. For example, as there are few direct flights between China and India, Chinese goods may be sent to Singapore by sea and later transship to India by air. Similarly, many manufacturers send their products from Indonesia or Malaysia to Singapore for its better connectivity with Europe or the US by air.

### **3. Challenges for Singapore transshipment**

The key challenges identified during the interviews include high operation costs, manpower shortage, inflexible procedures and other related issues.

#### *High costs of operations*

- The most common challenge mentioned by interviewees for Singapore as a transshipment hub is cost. Singapore is not cost competitive due to high land cost and labor cost. One interviewee mentioned that LCL business in Singapore is less competitive compared to the past. In 2004, agents charged US\$40 per pallet for LCL but it is now charged at US\$90 per pallet. In some cases, shippers choose to consolidate by themselves instead of hiring logistics providers.

- In air transshipment, cost is still a major problem as airline yield in Singapore is low compared to airports in North Asia, which limits Singapore's capacity over regional cities. In the case of air transshipment from Vietnam, Bangkok is cheaper as compared to Singapore.
- The rental cost in some district parks are high and is strictly for LCL consolidation only. Some interviewees felt that it can be more flexible by allowing companies to optimize the use of their space there.

*Incentives to use other ports*

- Another interviewee mentioned cost competition from regional ports in neighboring countries as the reason for the decline of transshipment volume in Singapore. These ports offer one-way zero freight cost by some shipping lines for transshipping goods to their countries to attract more shippers. For example, if shipper planning to ship their cargo from Dubai to China chooses to transship by Jakarta as forwarders would only charge shipper for the freight fee from Dubai to Jakarta route but the trip from Jakarta to China is free. Thus, customers would choose a free port for transshipment even though the cargoes take longer to reach destination.

*Lacked of specialized manpower*

- Manpower with specialized logistics skills is limited in Singapore. For example, the shortage of prime-mover drivers is causing a manpower shortage. Logistics firms need manpower to value adding (e.g., QC, repackaging, labeling, consolidation) during transshipment but doing it in Singapore will incur higher labor cost. Furthermore, repackaging cannot be automated as only human may optimize the space according to interviewee. The limit imposed on foreign workers could thus pose a burden for the logistics sector.

*Process is not flexible*

- Even though Singapore customs clearance is much better than other countries, some interviewees felt that some procedures are still burdensome, and customs checked almost all the cargoes. They may need to develop some heuristic rules to reduce the number of checks but without compromising securities. Some felt that Singapore ports (sea and air) are not very flexible and slow in handling exceptions sometimes. For example,



it is difficult to get a vessel to sail one day earlier or later without going through a lot of procedures and approval.

*Movement of buying and trading houses*

- Furthermore, some firms are moving their regional buying houses and distribution centers out of Singapore to be closer to their suppliers or customers. This could become a long-term threat for Singapore to sustain as a regional transshipment hub. For example, BenQ moved its distribution center from Singapore to China to save transportation costs. Many other buying houses are now based in Hong Kong (e.g., Wal-Mart) due to cost and distance factors as they are focusing on China markets.

**4. Major competitors of Singapore for transshipment businesses**

The key challenges identified during the interviews include high operation costs, manpower shortage, inflexible procedures and other related issues.

Major competitors for transshipments include Malaysia, Vietnam, Hong Kong, Shanghai and Korea.

- According to an United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) research paper on the shipping industry, major transshipment ports (referring to goods transiting within the port) in Asia Pacific are Port Klang, Port of Tanjung Pelepas (PTP), Singapore, Hong Kong, Shanghai, and Busan.
- In terms of ports perceived as competitors of Singapore, Port Klang, PTP, and Hong Kong are mentioned as they are near to Singapore with similar composition of transshipment cargoes. Though the competition between PTP and Singapore is the fiercest due to their close location, most interviewees do not see PTP would seriously affect the re-export business of Singapore due to its limited connectivity and capacity of 3PLs there. The competition from Port Klang and Hong Kong Port are more serious due to their good connectivity and the supporting airport nearby. Furthermore, Port Klang enjoys cheap land and could become an ideal site of commodity hub. The competitive advantage of Hong Kong is its close proximity to China, a large customer and as well as its friendly policies for re-export such as zero-GST and low corporate tax rates.

- Another emerging competitor mentioned is Ho Chi Minh City in Vietnam. Vietnam has built a new deep water port in Vung Tau, a site near to Ho Chi Minh City. Many shipping lines are operating there including NOL-APL. It could become a transshipment hub with its centralized location, targeting the whole Indochina areas as well as Philippines and Thailand. Singapore's transshipment business in the northern part of Southeast Asia after its full development may be threatened.

## **5. Opportunities for transshipment businesses in Singapore**

### Changes in market requiring new business models

- The type of value add services provided in Singapore during transshipment will evolve with time. Many interviewees still see Singapore playing a significant role as a re-export hub due to its strategic location and pro-transshipment policy by the government. Thirty years ago, many commodities such as rubber and coffee were stored in huge warehouse. Now they are stored elsewhere due to high rental cost and buyers transact directly with the manufacturers or producers. But the problem with this business model is its long lead time. As global commodity prices fluctuate frequently, many traders want to locate a storage hub for Southeast Asia customers, which can reduce the lead time to one week. But they need a storage hub with 300-500 container capacity, and are able to send the goods to final customers within a short period of time. The price fluctuation is a source of profits for some traders and they can store their goods in the storage hub when the price is low. Such a hub is not viable for low value goods and is meant for high value goods such as tins and other precious metals.
- One interviewee sees the potential for Singapore to be a value-adding location in the re-export businesses. For example, a firm can source for multiple components and then consolidate them in Singapore before re-export to an overseas plant for production. Some companies actually made their Singapore office a procurement or distribution center where they can consolidate orders from Asia to reduce the workload of their head office.
- Companies can take advantage of bi-lateral and regional agreement such as ASEAN FTA for re-export. For example, a firm can import semi-finished products such as perfume from the Europe or the US and then add sufficient value to change the country of origin to Singapore (e.g., condition

for ASEAN preference tariff is 40% local contents) such as repackaging them and putting them into small bottles with labels for each different market. This will allow the firm to lower its tariff from 20% to 5% when exporting to ASEAN.

*Innovation in processes*

- Another potential improvement in customs clearance is pre-customs clearance among multiple countries such as on-site inspection. Many years ago, Australia exports to Japan are cleared by on-site Japanese custom officers at Australia airport and when they reach Japan, they are straight away delivered to their consignees. For example, Malaysia can sign similar agreement with Singapore for pre-customs clearance. Iskandar would be a perfect location for such arrangement. Singapore custom officers can inspect and seal the goods at the warehouse in Iskandar and the goods can clear customs without further checks as long as the seal is intact.
- As the fashion industry is very time sensitive and expects shorter time to market, Asia is disadvantaged due to the distance from major markets such as Europe and the USA. It takes 3 weeks for goods in Asia to reach the USA by sea compared to 3 days from nearby Caribbean countries or South America. Air freight is an alternative but too costly. One way to overcome is to apply vacuum pack garments to reduce its volume and this may create new opportunity to ship garments in a shorter lead time without incurring too much freight costs. If it can reduce the airfreight cost by 50% to 70% due to vacuum packing, Singapore could invest in such capabilities and compete more effectively with the Caribbean countries.

*Leverage on government incentives*

- Make full use of existing government incentives listed in Table 4 to promote transshipment businesses.

Name of scheme	Agency in-charge	Scope of GST suspension	Criteria
Major Ex- porter Scheme (MES)	IRAS	<ul style="list-style-type: none"> <li>• The scheme applies to traders or manufacturers</li> <li>• Imported goods owned by itself or overseas principals</li> <li>• Goods move from ZG warehouses</li> <li>• MES traders will charge and account GST when they supply the goods locally</li> </ul>	<ul style="list-style-type: none"> <li>• The applicant's zero-rated supplies must account for more than 50% of the total supplies or the value of zero-rated supplies is more than S\$10 million for the past 12 months</li> <li>• Note: For the purposes of determining zero-rated supplies and total supplies, third country sales &amp; goods in transit must be excluded.</li> <li>• the total value of all exempt supplies must not exceed on the average of S\$40,000 per month and an amount equal to 5% of the value of your total supplies in that period.</li> <li>• The applicant must also maintain good internal controls and proper accounting records; good compliance records with IRAS and SC.</li> </ul>
Approved Third Party Logistics Company (3PL) Scheme	IRAS	<ul style="list-style-type: none"> <li>• Imported goods owned by itself or overseas principals</li> <li>• Goods move to other MES or Approved 3PL Scheme companies</li> <li>• Goods move from ZG warehouses</li> </ul>	<ul style="list-style-type: none"> <li>• Singapore incorporated, whose primary business is the provision of logistics services</li> <li>• For imported goods owned by overseas principals, the 3PL should perform some logistics management services but not alter the nature of the original goods.</li> <li>• The aggregate of the zero-rated supplies and supplies of goods to the qualifying customers must exceed 50% of its total supplies.</li> <li>• The applicant must be using a computerized Warehouse Management System (WMS) to manage its inventory of goods stored in the warehouse accurately for each overseas principal or customer. The system must be able to report the exact quantity, description or identity of the goods, value (if available) and location of the goods at any time.</li> <li>• The applicant must also maintain good internal controls and proper accounting records; good compliance records with IRAS and SC.</li> </ul>
Approved Contract Manufact- urer and Trader (ACMT)	IRAS	<ul style="list-style-type: none"> <li>• The scheme applies to local contract manufacturers (CM) or logistics companies (LOG).</li> <li>• An ACMT CM will enjoy import GST suspension of all goods imported under the following</li> </ul>	<ul style="list-style-type: none"> <li>• The applicant is a GST-registered business</li> <li>• A qualifying CM is one with an annual turnover of at least S\$10 million, in an approved industry sector. Currently, there are only two approved industry sectors – the semi-conductor industry and the printing industry.</li> <li>• A qualifying LOG must be receiving treated or processed goods from an ACMT CM for subsequent distribution as an agent of your overseas client.</li> </ul>

Scheme		<p>scenarios:</p> <ul style="list-style-type: none"> <li>• Importation of own goods in the course or furtherance of business;</li> <li>• Importation of goods in the capacity as a agent of an overseas person;</li> <li>• Importation of goods consigned to him by his overseas client on which value added activities are performed under the ACMT scheme.</li> </ul>	<ul style="list-style-type: none"> <li>• The applicant must provide value added activities in the course of its business for non-related overseas clients (less than 51% shareholding) who are not registered for GST</li> <li>• The ACMT CM applicant must have contract(s) or business transactions with non-related overseas clients involving value added activities which constitute a large percentage of its turnover (51% or more) or are of a substantial amount (S\$1m or more).</li> <li>• The treated or processed goods (which subsumed the consigned components, if applicable) must be substantially exported (85% or more).</li> <li>• The applicant must also maintain good internal controls and proper accounting records; and has good compliance records with IRAS and SC.</li> </ul>
Import GST Deferment Scheme (IGDS)	IRAS (effective from Oct 2010)	<ul style="list-style-type: none"> <li>• IGDS allows an approved business to defer the payment of import GST until the submission of the GST return for the prescribed accounting period. This scheme is not applicable to customs or excise duties.</li> <li>• IGDS will apply to both dutiable and non-dutiable goods:</li> <li>• Direct imports into Singapore</li> <li>• Imported goods released from Zero-GST/ Licensed warehouses for local consumption</li> <li>• Local goods released from</li> </ul>	<ul style="list-style-type: none"> <li>• The applicant must also maintain good internal controls and proper accounting records; and has good compliance records with IRAS and SC.</li> <li>• The applicant must be GST-registered for at least 3 years</li> <li>• The applicant has been importing or will be importing goods for its business purposes.</li> <li>• The applicant files GST return on a monthly basis.</li> <li>• The applicant maintains an interbank GIRO account with IRAS for GST payments.</li> <li>• The applicant completes a self-review under Assisted Self-Help Kit (ASK).</li> </ul>

		Excise Factory where a supply has taken place prior to the release.	
Zero GST Warehouse (ZG warehouse)	SC (Singapore Customs)	<ul style="list-style-type: none"> <li>When the goods are imported and moved into a zero-GST warehouse, GST on the goods is suspended. Similarly, GST is suspended when the goods are transferred from one zero-GST warehouse to another. GST is only payable when the goods are removed from the zero-GST warehouse into the local market.</li> <li>Value-adding operations intended to make the imported goods ready for the next link in the supply chain are permitted within the zero-GST warehouse, as long as they do not change the original characteristics of the goods. Licensees are required to seek approval from SC before carrying out any operations.</li> </ul>	<p>To qualify, you must meet the following basic criteria:</p> <ol style="list-style-type: none"> <li>You are a GST-registered trader with IRAS;</li> <li>You are a registered trader with SC;</li> <li>You must have good compliance and payment records with SC and IRAS;</li> <li>The premises designated to be the zero-GST area must be a storage-based facility with security measures in place;</li> <li>You must have good stock record-keeping and warehouse procedures that ensure accountability of the goods. There must be clear lines of responsibility between the warehouse staff.</li> </ol>

Table 5: Government incentives supporting transshipment business

## RECOMMENDATIONS

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This preliminary study has shown that transshipment is vulnerable as the trade patterns change but it also provide new insights for logistics companies to tap into by locating transshipment in Singapore. The following recommendations are grouped into 3 areas, namely: process innovation, technology exploitation, outreach and promotion.

### *Process innovation*

- There is still room for improvement in the customs clearance for air freight to avoid delay in goods delivery. One such area is in customer clearance for controlled commodities such as strategic goods (e.g., high-value high-tech components). Some coordination among multiple agencies would certainly help to streamline the process and improve the efficiency.
- Explore sea-to-air transshipment process instead of direct air export with the shippers to take advantage of the low sea freight charges and overcome the limited air freight capacity (cargoes under 45kg) in this region.
- Introduce new services during transshipment such as consolidation of raw materials in the hub, compression of garments for air freight, pre-customs clearance to shorten transshipment processing.

### *Outreach and promotion*

- Explore new services for some commodities such as beverages, integrated circuits and petroleum products that show sign of increasing re-export volumes for air transshipment.
- Promote better linkages with other ports and infrastructures for sea-to-air transshipment to increase sea-to-air transshipment volume. For example, to increase its air transshipment activities, more can be done to attract more airlines and freighters to Singapore to increase its overall air freight capacity.
- Organize more outreach programs for freight forwarder and shippers so that they are aware of the incentives for transshipment businesses.

### *Technology exploitation*

- Upgrade the IT capabilities of our local logistics service providers so that document flow is minimized and data can be reuse during transshipment (e.g. converting import documents into export documents).

- Upgrade the productivity of the logistics industry through training and the use of IT to address manpower shortage and high operating costs.

## CONCLUSION

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Logistics is an important pillar supporting Singapore's economic activities. For our logistics industry to remain competitive, we should continue to improve and enhance our services capabilities to better serve shippers and cargo owners. As the industry is operating on thin margin and increasing business costs, government assistance and incentives are still important for the continued growth of the industry.

This study has provided preliminary insights into the opportunities and vulnerability of transshipment in Singapore. It is expected that shippers will continue to locate their transshipments in Singapore due to Singapore's connectivity and value add services provided. Similarly, logistics providers will explore new value add services such as consolidation of raw materials in the hub, labeling, packaging and compression of garments for air freight to attract more transshipment through Singapore.

Last but not least, the government can continue to introduce or enhance their policies to make Singapore a viable and secure location for transshipment.



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