COPENHAGEN ECONOMICS European Chamber of Commerce Taipei

TAIWAN: ENHANCING OPPORTUNITIES FOR EUROPEAN BUSINESS

TRADE AND INVESTMENT BETWEEN THE EUROPEAN UNION AND THE SEPARATE CUSTOMS TERRITORY OF TAIWAN, PENGHU, KINMEN AND MATSU (CHINESE TAIPEI)

FINAL REPORT | AUGUST 2008

INFORMED DECISIONS

COPENHAGEN ECONOMICS

COLOPHON

Author: Martin H. Thelle, Lars B. Termansen, Mikkel E. Birkeland and Joseph F. Francois

Client: European Chamber of Commerce Taipei (ECCT)

Date: August 2008

Contact: SANKT ANNE PLADS 13, 2nd FLOOR | DK-1250 COPENHAGEN
PHONE: +45 7027 0740 | FAX: +45 7027 0741 | WWW.COPENHAGENECONOMICS.COM

TABLE OF CONTENTS

PREFACE

This report is about the trade and investment relations between the European Union and the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu (Chinese Taipei). The latter is the formal name for the 2002 WTO member which is also known as *Chinese Taipei*, or simply as *Taiwan*[1].

Both Europe and Taiwan are exploring the options for bilateral trade agreements. In its strategy, *Global Europe,* the EU Trade Commissioner underlines the importance of getting market access to the growing Asian markets. So far agreements with the Republic of South Korea[2], India and ASEAN are on the agenda.

On the Taiwanese side, the newly elected President, Ma Ying-jeou, has repeated the interest in negotiating a US-Taiwan free trade agreement (FTA) and has recently expressed interest in enhancing trade and investment relations with the EU. Together with an opening-up of the economic relations with mainland China, this is part of a new strategy to revitalise the island's economy.

The European Chamber of Commerce in Taipei (ECCT) has asked Copenhagen Economics to examine the economic merits of an EU-Taiwan trade enhancement measures for the two economies in the context of the Commissioner's strategic objectives in a larger Asian region. The Chamber has furthermore asked us to compare these impacts with other European FTAs in Asia, in particular with Korea, and to propose ways forward to increase European growth, employment and consumer benefits.

We are grateful for the financial support from the ECCT and its members to carry out the study. The study is conducted by Partner Martin H. Thelle, Economist Lars B. Termansen and Professor Joseph F. Francois. In addition, Ph.D. Henrik B. Okholm, Partner, and Research Assistants Louise L. Rants and Holger Nielsen have contributed to the project. Quality assurance was carried out by Ph.D. Claus Kastberg Nielsen, Managing Director.

Copenhagen, August 2008
Martin H. Thelle

[1] For the purpose of this report, we shall use the name "Taiwan". We use this name in practice because it is the shortest and more well-known, but formally we refer to the WTO member of Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu (Chinese Taipei). Likewise the European Union is sometimes referred to as "Europe" and the People's Republic of China is often referred to as mainland China.
[2] Henceforth the Republic of South Korea is named Korea.

Executive Summary

To stay competitive in the global economy, European businesses need a stronger foothold in Asia. Unfortunately, in this respect, Europe is lacking behind its main competitors from the US and Japan. Europe's new trade strategy, *Global Europe*, puts open trade and investment with Asian economies on top of the agenda, and it is seen as essential to boost European economic growth and create European jobs.

Consequently, the European Commission is negotiating free trade agreements with Korea, India and ASEAN. The negotiations with Korea are progressing and an agreement is within reach. Negotiations with India and ASEAN are moving more slowly. If the Global Europe strategy shall deliver significant results to the EU economy, it seems warranted to widen the radar screen and look for more potential partners in Asia.

Looking at the options, trade enhancement with Taiwan holds a promising potential of delivering considerable and fast economic gains to European businesses and consumers. The improvement in the relation between Taiwan and mainland China gives Europe a window of opportunity to improve its market access in Asia significantly. An EU-Taiwan trade enhancement deal also gives Europe an opportunity to get ahead of the US in Asia. This report assesses the potential for Europe from trade enhancement with Taiwan.

1. Gains for the European economy from more trade with Taiwan

Trade enhancement measures with Taiwan constitute a considerable potential
Trade enhancement measures with Taiwan will impact the European economy positively. We estimate that enhancing trade with Taiwan can boost European GDP with close to €2 billion per year, or €20 billion over ten years. These estimates are based on a scenario of eliminating tariffs and non-tariff barriers beyond what was assumed to be included in the WTO Doha-round. Without a Doha-round, the potential for gains from bilateral trade enhancement measures have increased.

The estimated gain for Europe of €2 billion from trade enhancement measures with Taiwan can be compared to the estimated gain from a full free trade agreement (FTA) with Korea, which is estimated at close to €5 billion a year. In an earlier study, we estimated a less than full FTA with Korea will yield just over €2 billion in annual economic gains to the EU. Compared to the size of the Taiwanese economy, which is around 40 percent the size of the Korean economy, the estimated gains are of a considerable size. Trade enhancement measures with Taiwan should therefore not disregarded with reference to lack of economic potential for European business and consumers.

Key barriers relate to non-tariff measures and barriers to service trade
Non-tariff issues and service barriers are the main concerns and they constitute a significant barrier to exports to Taiwan. While European automobile exports are hampered by high Taiwanese tariff-peaks (17.5%), the sector also struggles with a number of so-called *Taiwan-only* requirements (standards and double-testing), making it more costly to supply the Taiwanese market. Important non-tariff issues also surface in other industries. Beverages and tobacco face a high number of non-tariff barriers and EU pharmaceutical producers face difficulties related to regulatory issues in the Taiwanese health system. Of 143 major trade policy concerns of European business in Taiwan,

53 relate to non-tariff barriers in manufacturing.

Taiwan's services barriers are also high, although slightly lower than Korea's according to our estimates. Barriers in the financial services sector, in the retail and wholesale sector, in transport and in telecommunications are of particular importance. Of 143 issues gathered, 50 issues relate to service sector barriers. Our econometric estimates further indicate that service barriers correspond to a tariff equivalent of 25-35 percent in Taiwan. Reducing these barriers imply significant gains to European business in the areas of for example financial services (e.g. banking and insurance), business services (e.g. engineering and accounting), transport (e.g. shipping and express delivery), retail services (e.g. supermarkets and other retail) and telecommunication.

These types of European firms face significant challenges when they 'export' their business models to new markets. Non-tariff barriers and regulatory issues are holding back growth and global expansion of EU businesses. The EU-Taiwan trade relation holds a promising potential of finding solutions to these challenges, and a new set of EU-Taiwan trade enhancement measures could become a lead example of European-Asian regulatory convergence in these areas. Successfully implemented it could be copied in future negotiations.

Additional long-term gains for European businesses and consumers from trade with Asia

In the longer term, openness to trade with economies like Taiwan and Korea will give an additional boost to the European economy. Trade can boost productivity growth and add to the above estimated gains. Openness to trade provide European firms with greater opportunities for exploiting global economies of scale, and it exposes European industries to greater competitive pressures. Open trade with Taiwan will reward those investing in innovation and provide European firms and consumers with access to new technologies.

Taiwan holds unique long-term potentials for European expansion in Asia

Taiwan is an advanced economy with many small and medium sized firms, and gaining better market access to the Taiwanese market of 23 million consumers with a high purchasing power is an objective in itself.

Taiwan, together with Korea, plays a central role in the global ICT value chain. Taiwanese engineers provide ever-more-ingenious solutions to manufacturing and design conundrums and as an example the global laptop industry has consolidated around Taiwan. Open trade with a global technology powerhouse is another reason to consider trade enhancement with Taiwan.

Taiwan is more than a global high-tech hub. Taiwan is also becoming an advanced service centre for China. Not so much for financial services, this is mainly Hong Kong's role, but through the expansion of existing services such as head office functions, R&D centres, sales & marketing, professional training and medical services. Films and music from Taiwan are also very strong in China. These service industries all grow rapidly and Taipei will be the leading centre in Greater China for some of these activities. This substantiates the importance for Europe to have a stronger presence in Taiwan.

According to our assessment, the strategic opportunities for European firms are larger in Taiwan than in Korea. The main reason is Taiwan's close economic integration with mainland China. Taiwan is a bridgehead to China. Despite a history with tense relations, Taiwan has built strong economic ties to mainland China. More than 70.000 Taiwanese-owned companies are operating in China, and estimates provided in the 2008 EU-Taiwan fact file suggest that Taiwanese-owned companies generate between 10 and 20 percent of China's exports to Europe.

Following the change of Government in Taiwan on 20 May 2008, talks to improve economic relations with mainland China kick-started. Direct chartered flights started in July 2008 and many of the restrictions on trade and investment between Taiwan and mainland China will be removed.

A stronger economic integration between Taiwan and mainland China will strengthen Taiwan's springboard function for European firms' endeavours into the mainland. EU firms are already large investors in Taiwan and have a lot to gain from the cross-strait business normalization, but trade enhancement measures between EU and Taiwan are needed to fully realise these potentials for European firms.

Taiwan is just as attractive as Korea

Taken together, the static and strategic gains from trade enhancement with Taiwan may be as big as the combined static and strategic effect from an agreement with Korea. We assess that the strategic effect have major importance for the value of trade enhancement with Taiwan, while they are of smaller importance to the EU-Korea trade relation.

EU's criteria for new FTAs

The EU gives priority to FTAs with partners with large and growing markets and with high initial protection. Based on these criteria for new FTA partners, Taiwan holds a promising potential. Taiwan is more prosperous than Korea in terms of real income per capita, and even though Taiwan's economy is smaller than that of Korea and that of India, it is larger than the individual members of ASEAN. The size and growth of the Taiwanese market is considerable in itself. If the strategic effect of access to the Chinese market is taken into account, Taiwan certainly fulfil the criteria of market size.

Taiwan also fulfils the second criterion. Even though Taiwan is generally among the most open economies in Asia with low tariffs, there are still substantial non-tariff barriers and barriers in services that constitute a *raison d'être* for trade enhancement measures. Our assessment of the potential gains from reducing these barriers suggests that Taiwan's initial protection is just as important as in Korea. Thereby, Taiwan would qualify as a potential FTA partner on both criteria.

2. EU to maximise gains when measures are ambitious and broad

What is "the potential deal"?

As stated by the EU Commissioner for Trade, Peter Mandelson, loose and shallow free trade agreements negotiated for political reasons will not do the job – and will do the multilateral system no favours.
Our analyses of Europe's potential FTAs with Korea and Taiwan seem to support this statement. To maximise EU's economic gains from enhancing trade with Taiwan, the EU should – as in the case of Korea – aim at what could be called a competitiveness-driven trade enhancement agreement. This would be a so-called WTO-plus agreement, whereby general tariff reductions are addressed multilaterally, and the bilateral deal focusing on issues that are not taken care of in multilateral trade negotiations.

In this “potential deal” the EU would gain from better market access in services such as banking, telecom and transportation as well as in retail services. European manufacturing industries will also benefit (especially in automobiles and the food and beverage sector) through removal of non-tariff barriers and through the removal of the remaining tariffs. The reduction of service barriers will also help Taiwanese manufactures. They will gain access to better and cheaper high-level services which are an increasingly in demand. The Taiwanese economy needs advanced and knowledge intensive services to stay competitive vis-à-vis China and other lower cost countries.

Taiwan would gain from duty free access to the EU market on similar conditions as Korea, which is mainly helping to expand Taiwan’s export of consumer electronics, but it will in turn also benefit the EU, because of EU exports of intermediate electronic components and because of the benefits to EU end-consumers. A competitiveness-driven trade enhancement agreement is a win-win situation, where both economies will gain, and none of their main trading partners will be hurt.

3. Taiwan and the broader context

China could benefit economically from EU-Taiwan trade enhancement measures
Some may fear that mainland China will react negatively to potential trade enhancement measures between Taiwan and EU. Our analysis shows that China’s economy is, in fact, slightly positively affected in the scenarios of trade enhancement between Europe and Taiwan we have analysed. Certainly China’s exports to Europe will face more direct competition from Taiwan’s exporters, but the growth of the Taiwanese economy as a result of trade enhancement measures with the EU will benefit mainland China, and this latter effect dominates. In addition, there will be significant benefits for mainland China from the removal of the Taiwan-imposed restrictions on trade and investment across the Strait. Resistance towards trade openness between EU and Taiwan does not seem warranted on economic grounds.

Avoiding trade diversion in Asia
By signing a FTA with Korea, Europe will divert some trade away from Taiwan and towards Korea. While it will create some trade between Taiwan and Korea, it will introduce some inefficiencies and distortions particular in areas where Korea and Taiwan are competing neck-to-neck (e.g. in consumer electronics and IT-products). By making a “copy” of the Korea-deal with Taiwan, the EU could avoid contributing to the emerging patchwork of FTAs in Asia, at least in so far as giving two competing partners equal market access. A “copy” of the Korea-deal to Taiwan would avoid some of the most evident trade diversion effects, whereby European imports of for example consumer electronics (e.g. flat screen televisions) would be “unnaturally” twisted in favour of Korea. Furthermore, our simulations show that EU-Taiwan trade enhancement will not affect Korea negatively.

EU should say ‘yes’ if Taiwan expressed interest in trade enhancement measures
All in all, we conclude that the EU should consider saying ‘yes’ if Taiwan expressed interest in initiating discussions on ambitious trade enhancement measures. The economic impacts of trade enhancement are positive and considerable. Ambitious trade enhancement measures with Taiwan will increase EU exports and production. EU firms and consumers will benefit and there will be a net-increase in the demand for labour in the EU.

Chapter 1 Economic impacts of EU-Taiwan Trade Enhancement

In this chapter we provide an overview of the results from our assessment of the economic impacts from measures to enhance trade and investment between the European Union and Taiwan.

Openness to trade with Asia is essential for European growth and jobs. In the short term, it boosts European production by giving EU exporters access to important growth markets; it boosts consumer welfare by giving them access to cheaper consumer goods; and it boosts productivity by enabling more efficient allocation of resources.

In the longer term, openness to trade with economies like Taiwan will also give an additional boost to European productivity by providing greater opportunities to exploit economies of scale, by exposing the domestic economy to greater competitive pressures, by rewarding innovation and providing access to new technologies, and by increasing incentives for investment.

In order to assess the potential impact on the European economy we have to address both issues. To quantify the short term gains we have applied a general equilibrium model of global world trade[3] and analysed three scenarios of trade enhancement (how much more production, consumer welfare and efficiency?). To analyse the longer term effects we have conducted a series of personal interviews with both European and Taiwanese business leaders during two missions in Taiwan, and summarised the strategic opportunities for European business in Taiwan.

To see how trade enhancement measures with Taiwan fit in the bigger picture of improve EU's global economic interests, we should go back and look at the objectives of Europe's external trade strategy.

1.1. Europe's New External Strategy

The European Commission has adopted a new strategy for competing in the world. In the strategy document, *Global Europe,* the Commission states that Europe's position in Asia is of particular importance to Europe's long-term growth and employment creation. Asia is important to Europe as a source of key inputs, and as a destination for European goods and services. Furthermore, Asia has become an important destination for overseas investments, and for the localisation of certain types of R&D activities. Through the *Global Europe* strategy, the European Union wish to improve EU's presence in key Asian markets, but is recognising that Europe is lagging behind the US and Japan in this respect.

The rapid success towards an EU–Korea agreement is the first result of the strategy, and if negotiations with Korea are concluded as expected, it will deliver significant gains to the European economy[4], and set the course for long-term benefits of the external trade strategy.

---

[3] See technical annex for a detailed explanation on the used equilibrium model.
[4] As documented in the impact assessments of the EU-Korea FTA.

However, the US has also concluded negotiations with Korea, and an EU-Korea FTA will only put Europe on par with the US.

After an EU-Korea free trade agreement is completed, Europe will continue negotiating with the two other Asian partners given priority in the strategy – namely India and ASEAN. The impression is that, while the potentials and expectations are high, the speed of progress with India and ASEAN is slow. It is, therefore, relevant to ask whether Europe's focus in Asia is sufficiently broad-based, and if the focus on Korea, India and ASEAN, albeit reasonable and well-justified, is enough to secure Europe the strategic position in Asia that it has expressed as the main goal of the strategy. Even in the case of an EU-Korea FTA, Japan and the US will still lead in Asia.

The European Commission has also carefully assessed the options for enhancing trade with the two biggest economies in Asia, China and Japan, with China furthermore as the fastest growing economy. So far, the prospects of trade enhancement with one of the larger of the advanced economies in Asia, namely Taiwan, have not been assessed in detail.

The purpose of this report is to fill that gap. The central question is one that has become gradually more relevant to answer: **Should the EU consider accepting the invitation, if Taiwan expressed a wish to initiate discussions on trade enhancement measures?** Four recent geo-political developments have made this question more relevant:

- Taiwan has elected a new President with a strong focus on reviving Taiwan's economic growth through increased economic openness
- As a result there is a new *entente* between Taiwan and mainland China, and economic integration across the Taiwan-China Strait is back on the agenda
- Europe is close to successfully concluding a free trade agreement with one of Taiwan's main competitors and main trading partners – South Korea
- There is currently a *fatigue* in the US, both in the terms of economic growth and regarding new free trade agreements, which may encourage Taiwan to look for opportunities in Europe.

In this study we provide an economic assessment of enhancing EU-Taiwan trade and investment. Our assessment is in line with the priorities in the Global Europe strategy and it invites policy makers to renew their assessment of Taiwan in light of the recent developments, and compare the economic gains to the political concerns that traditionally have clouded the relations with Taiwan.

1.2. Taiwan and the Objective Criteria for New FTA Partners

Bilateral trade agreements are not new to Europe. What is new in the *Global Europe* strategy is a more rigorous assessment of the economic case for new agreements; and the greater priority that will be given to economic considerations in choosing future partners. The economic assessment is key to making sure that new agreements create trade rather than divert trade.

For these reasons, *Global Europe* introduced a set of objective criteria to assist the assessment. These are: market potential, level of protection, negotiations by EU competitors and the risk of preference erosion.

Based on EU's criteria for new FTA partners, Taiwan holds a promising potential. Taiwan is more prosperous than Korea in terms of real income per capita, and even though Taiwan's economy is smaller than that of Korea and that of India, it is larger than the individual members of ASEAN. Historically, Taiwan has been one of the fastest growing economies in the world, and according to the plans of the newly elected President Ma Ying-jeou, Taiwan's economy holds the potential to return to the 5-6 percent growth rates it has produced in the past.

If the ambitious economic strategy succeeds, Taiwan will be the fastest growing economy in Asia after China and Vietnam. Since Europe's competitive advantages are in up-market products that are generally more income-sensitive than price-sensitive, Taiwan's return to high growth rates will have a particular positive impact on European exports, because Europe is strong in such income-sensitive goods and services (e.g. upper-end cars, fashion and design and up-market food and beverages, but also knowledge intensive services such as financial services and consulting services).

Based on these criteria, we assess that Taiwan has significant market potential. While tariff protection is generally low, other and more important non-tariff barriers are high. Furthermore, Taiwan has historically been very oriented towards the US and a US-Taiwan free trade agreement has been discussed before, and is now back on the agenda. In summary, our analysis suggests that Taiwan should be a candidate to consider, cf. Table 1.1.

Table 1.1 Taiwan and the EU "Global Europe" criteria for FTA partners

	Criterion	Extent to which Taiwan meets criterion
1.	**Market potential**. The size of a market and its growth prospects are proxies for EU's current and long-term commercial interest.	▪ Taiwan is the fifth largest economy in Asia just after India and Korea. ▪ Real GDP growth of 5 percent per year is expected. ▪ Current trade and investment flows appear to be artificially suppressed by non-economics factors. ▪ Our assessment suggests that Taiwan holds a potential for trade enhancement that goes beyond what is apparent from its size and growth prospects.
2.	**Level of protection.** The level of protection against EU export interests (tariffs and non-tariff barriers)	▪ Tariffs are generally low, but high peaks exist on key European products which hamper current trade (e.g. beverages and automobiles). ▪ Non-tariff barriers and service barriers are high. ▪ Regulation and government procedures differ substantially from European standards and poses *de facto* barriers for many of the European strongholds (e.g. pharmaceutical, automobiles, financial services and many others).
3.	**Negotiations with EU competitors**. Potential partners' negotiations with EU competitors and the likely impact of this on EU markets and economies	▪ An FTA between Taiwan and the US is not unlikely. None of EU's main competitors are currently negotiating with Taiwan. However, a Taiwan-US FTA has been discussed and analysed several times. ▪ An FTA with the US is high on the agenda among Taiwan business leaders. ▪ A series of intensive meetings between the Taiwanese administration and the US administration have been held recently on investment issues and non-tariff issues in sectors such as telecommunications, financial services, IPR and pharmaceuticals. ▪ Taiwan's relations to the US are significantly improved after the election of the new Taiwanese President.
4.	**Risk of Erosion.** The risk that the preferential access to EU markets currently enjoyed by EU's neighbouring and developing country partners may be eroded	▪ Taiwan's main exporting products to Europe are not in competition with the goods produced neither by European neighbours nor by developing countries. ▪ Therefore concerns over preference erosion for such partners should be minimal.

Source: Criteria as in Global Europe strategy, Commission Staff Working Document, SEC (2006) 1230.

In the US Congress there are 11 criteria for new FTA partners. One of these is "support from the US business community". If support from the EU business community was added to the list of EU's criteria for future FTA's, it would have a positive outcome in so far that EU-Taiwan trade enhancement measures would receive the support from EU business in Taiwan.

Leading EU firms are already present in Taiwan. In their view, Europe is missing out on clear opportunities and they have expressed their concerns and wish to improve trade and investment relations between Taiwan and the EU. The annual Position Paper from the European Chamber of Commerce in Taipei (ECCT) list more than one hundred obstacles in Taiwan that slow down trade and investment and hinder growth of European interests in Taiwan. The yearly ECCT Position Papers invite the Taiwanese government for cooperation on solving these issues. So far with positive results. The Taiwanese government has proven to be pragmatic and efficient in solving many of the issues raised. Not everything that needs to be solved is being solved. Important issues remain on the "to-do list" that cannot be solved on a unilateral basis. Taiwan would need a partnership with Europe to resolve many of the remaining issues.

While Taiwan is perceived as economically attractive, it is also perceived as politically uncertain and challenging. Taiwan‘s relation with mainland China is the key source of uncertainty. The former Taiwanese government (1999-2008) took a more assertive stance on sovereignty and there was no sign of rapprochement. The new government, in office since May 2008, is aiming for normalisation of the economic relation, and is planning to discuss what is called a “Comprehensive economic cooperation agreement” (CECA) similar to what is in place between Hong Kong and Beijing. Taiwan wants to negotiate bilateral deals on trade, investment and banking supervision and eventually sign a peace agreement with Beijing. But Ma Ying-jeou, Taiwan's president, has said he would not negotiate unification because the Taiwanese want to keep their status as a de-facto independent, democratic state[5]. There are signs that political uncertainty is declining, and that the clouds over the strait are clearing off. Nevertheless, compared with other countries, uncertainty will continue to play role.

Analysis of the volume of trade and investment between EU and Taiwan reveals that there is less trade and less investment than there should be, given the relative openness and the size of the two economies. Uncertainty is part of the equation when explaining why the EU – Taiwan trade relation is *under-traded*. Relocation of Taiwanese production to China is another important factor in that equation. Our analysis, therefore, starts with a long view in the trade and investment relation between EU and Taiwan. We invite Korea with us on the journey, since they are economically very similar.

1.3. Miracles and Mysteries

South Korea and Taiwan are known as the ‘growth miracles’ of East Asia and both are held forward as examples for other countries around the world to follow. In 1960, South Korea was poorer than many sub-Saharan African countries and Taiwan not much richer. Since then, these two countries have experienced average annual increases in per capita income between six and seven percent, leaving far behind not only these African countries but also much richer countries, such as Mexico and Argentina.

It is generally held that South Korea and Taiwan grew rich in much the same way. Most explanations of the East Asian ‘growth miracles' place heavy emphasis on export orientation. A closer look at the evidence, however, suggests that the standard story is at best incomplete.

A more plausible story also focuses on the investment boom that took place in both countries. High levels of human capital and a relatively equal distribution of income created the conditions under which government intervention stimulated investment and led to growth[6].

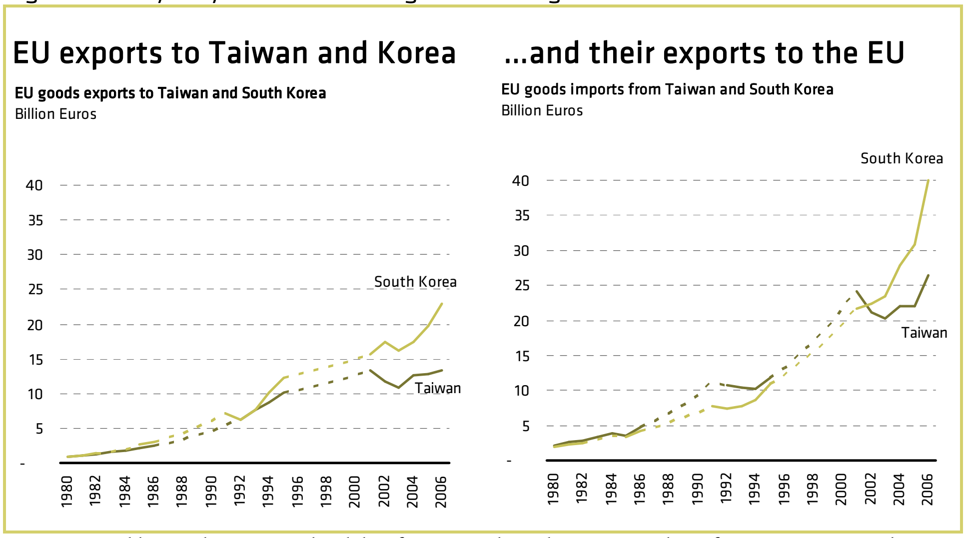
[5] Financial Times, 30 May 2008.
[6] See Rodrik, Dani, "Getting Interventions Right: How South Korea and Taiwan Grew Rich" (December 1994). NBER Working Paper No. W4964.

The Mystery of Missing Trade

How did trade between Europe and these two economies evolve? For a long time there was virtually no trade between Europe and the two. In the early 1980s, trade with Europe picked-up and Taiwan and Korea each exported around €2 billion of goods to Europe (then only nine members) and each imported €1 billion worth of goods from Europe. At the time this corresponded to a mere 0.4 percent of the total EU exports. Until around 1995 (with then 15 members) Europe's export to both followed GDP growth in the two economies nicely with a factor 2.5 times the GDP growth in each country, and by 1995 exports to each had grown to roughly €10 billion (or 1.8 percent of total EU exports). Korea was harder hit than Taiwan by the financial crisis in the early 1990s, and that slowed down trade for a year or two.

After 1995, the growth in European exports to Taiwan slowed down, while exports to Korea continued to surge. By the turn of the century, EU's export to Taiwan ceased to grow, while exports to Korea took off along side the increase in real income in Korea. As a result, EU's export to Korea grew to €23 billion by the end of 2006, while export to Taiwan halted at €13 billion, cf. Figure 1.1 (left panel). Imports tell the same story. EU's imports from Taiwan grew slower than imports from Korea. By the end of 2006 the EU imported €40 billion from Korea and €26 billion from Taiwan, cf. Figure 1.1 (right panel).

Figure 1.1 A mystery of Taiwan trade gone "missing"



Note: Dotted lines indicate interpolated data for years without data. EU is evolving from nine to 27 members.
Source: Eurostat, External and intra-European Union trade, Statistical yearbook — Data 1958-2006, 2008-Edition.

What happened to Europe's trade with Taiwan? Certainly the fact that Taiwan historically has been very open to trade, and Korea very closed to global trade plays a role. Korea has been catching up on Taiwan in terms of openness. Korea is also a bigger economy than Taiwan. Therefore, Europe's trade with Korea should be expected to increase more rapidly than with Taiwan.

A large part of the 'missing' exports from Taiwan to Europe is a result of the massive relocation of Taiwanese production to mainland China. Taiwanese producers moved production to China both earlier and at a much bigger scale than Korean producers, and this is part of the explanation.

Lack of growth in the Taiwanese economy is another part of the explanation why EU's exports *to* Taiwan stood still in five years from 2001 to 2006, while European trade with Korea increased by 50 percent in the same period. Gross domestic product (GDP) per capita in Taiwan grew by an average of 2.0 percent from 2000 to 2007, while Korea's economy was growing rapidly at an average of 8.9 percent in the same period[7].

Adding to the mystery is the fact that Taiwan has much lower import protection than Korea, which would point in favour of a more rapid increase in imports. Somehow trade with Taiwan has gone missing over the past five to eight years. Looking at Europe's imports from Taiwan adds to the puzzle. Both imports and exports are missing. There seems to be a mystery of missing trade.

Mystery of missing investments

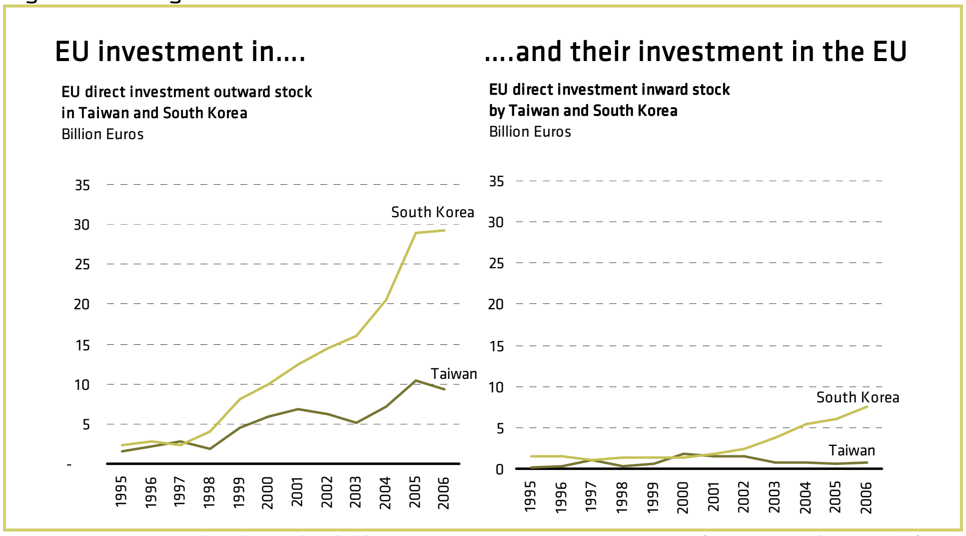
Investment is an echo of the missing trade story. Looking at Europe's investments in the two countries tells us exactly the same story. Compared to Korea, investments with Taiwan as partner have also gone missing.

To look at investments we do not need to go as far back in time. Very little EU investment took place in either country prior to 1995. In the late 1990s, EU firms started to invest in Korea, and the EU FDI stock surged from €2 billion in 1998 to almost €30 billion in 2005.

EU investments in Taiwan took off a little later, and when it did it was not at the same rate as in Korea. The EU stock of foreign direct investment in Taiwan increased from €2 billion in 1998 to €10 billion in 2005, cf. Figure 1.2. EU's FDI stock in Korea was, by the end of 2006, three times higher than the EU investment in Taiwan, even though Korea is only double the size of Taiwan. Adding to the mystery: there is very little Taiwanese FDI in the EU. According to Eurostat numbers there is only €0.8 billion worth of investment in the EU. For comparison, Korea's investments in Europe went up four-fold since 2001. By the end of 2006, Korea's FDI stock in Europe was €8 billion or ten times as big as Taiwan's FDI stock in Europe.

[7] Taiwan's economy grew from a GDP of 14,400 USD per capita in 2000 to 16,600 USD per capita in 2007, while Korea' GDP per capita increased from 10,900 USD per capita to 19.800 USD per capita in the same years, based on data from the International Monetary Fund, World Economic Outlook Database, April 2008.

Figure 1.2 Foreign direct investment: EU-Taiwan and EU-Korea



Note: EU FDI inward stocks are detailed by investing extra-EU country. Data are for EU15 until 2000 and for EU25 as from 2001.
Source: Eurostat

In summary, there is a “mystery of missing trade” with Taiwan, and a “mystery of missing investment”. Our analysis indicates that current EU-Taiwan trade and investment flows appear to be suppressed by non-economic factors. In our assessment, improvements of trade relations with Taiwan therefore hold a potential that goes beyond what is apparent from its size and growth prospects. In the following paragraphs we will explain how this potential can be realized.

1.4. Options for Enhancing Trade

Much of the potential for redressing the missing EU-Taiwan trade can be realised through trade enhancement measures. The EU, like most other countries, follows a "One China policy" and thus has no diplomatic relations with Taiwan. The EU treats Taiwan as a separate economic and commercial entity. Taiwan’s membership of the WTO was strongly supported by the EU, and the WTO membership enables Taiwan to negotiate bilateral trade issues with other WTO members[8]. Taiwan’s separate status as WTO member should make it possible to negotiate trade enhancement measures without linking it to other types of international recognition. Therefore, we assume that there are practical options for enhancing trade, and that the EU can negotiate trade policy without changing other policies vis-à-vis Taiwan or any other nation.

Trade and investment flows between Europe and Taiwan are below their potential. The underperformance is both because of *de facto* trade barriers and because of the cross-straits economic restrictions. Removing these obstacles will enhance trade and investment and dissolve the two mysteries, which in turn will lead to economic growth in both economies.

[8] Taiwan here refers to the official WTO member named *Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu (Chinese Taipei).* Note that Taiwan is member to the WTO, but not to the GATT.

Why have these obstacles not been addressed? First of all, the most important obstacles between the EU and Taiwan are those that are difficult to solve, but have significant impact. We have identified service barriers, non-tariff barriers in manufacturing and barriers to foreign direct investment (FDI) as the main inhibitors of the EU –Taiwan trade.

On the tariff side, Taiwan has lower tariffs on agriculture than Korea, but higher tariffs in manufacturing. In particular the peaks on motor vehicles (currently at 17.5 percent) and on beverages (currently at 15.6 percent) are inhibitors of European concern. Taiwan's WTO accession will lower protection substantially and make Taiwan one the most open economies in Asia measured by tariffs. Taiwan is not facing high tariffs in Europe. Many of Taiwan's main products are in fact duty free already under the information technology agreement (ITA). However, some of Taiwan's main export products are facing significant protection in the EU, mainly bicycles and parts (of which Taiwan is a major global exporter) where EU's import protection is 15 percent. Also some LCD panels suitable for TV/video use, face import duties of 14 percent.

According to European businesses in Taiwan, non-tariff issues are the main concerns and they constitute a significant barrier to exporting more to Taiwan. The automobile industry can list a number of issues of so-called *Taiwan-only* requirements that make it more costly to supply the Taiwanese market (e.g. the lack of accreditation of EU test laboratories, burdensome safety approval and conformity of product approvals for individual parts and additional smoke tests for diesel cars). Other industries also list many issues. Beverages and tobacco face a high number of non-tariff barriers, pharmaceuticals face difficulties related to regulatory issues and procurement procedures in the health system. The ECCT have identified 53 non-tariff barriers of major concern, and out of a list 143 issues in total; this indicates the importance attached to non-tariff issues.

Taiwan's service barriers are high, but slightly lower than Korea's. Both our econometric evidence on service barriers and the evidence gathered through industry consultations indicate that barriers in the financial services sector, in the retail and wholesale sector, in transport and in telecommunications are of particular importance. The ECCT Position Papers mention 50 issues related to service sector barriers. Our econometric estimates indicate that service barriers correspond to a tariff equivalent of 25-35 percent in Taiwan, i.e. that it is 25 to 35 percent more expensive for foreign service suppliers than for domestic service suppliers to deliver their services to Taiwan.

Our claim about the importance of barriers in financial services is substantiated by the latest issue of the Global Competitiveness Report from the World Economic Forum, which gives Taiwan a high ranking as 14th overall, but with a worrying low ranking on one of the 12 pillars of competitiveness, namely *financial market sophistication* where Taiwan ranks 58 overall (and Korea ranks 27). Exactly how much of these additional costs from inefficient and discriminatory service regulation that can reduced through addressing the issues we have identified is unknown, and for that reason we apply scenarios with varying degrees of reductions in these service barriers.

The combination of these *de facto* barriers mentioned above result in a complex trading landscape that reduce trade and investment between the EU and Taiwan. However, on aggregate, Taiwan is not more of a bureaucratic challenge for Europeans than other Asian countries. But adding discrepancies in technical standards and transparency in bureaucratic procedures, it may not be too surprising that trade and investments are missing.

Previously, tensions between Taiwan and mainland China gave rise to concerns for European business. Now, strong signals emerge that cross-strait relations are being normalized. The recent political change in Taiwan has softened the tension between Taiwan and mainland China. The restrictions on economic relations with mainland China are being removed. First by removing the restrictions on direct flights to the mainland and by allowing mainland tourists to visit Taiwan. Second by lifting limits on Taiwanese investments in mainland China. These steps are important, both economically and politically for both sides, and it is generally held that relations between Taiwan and mainland China are improving as a result.

The current political change in Taiwan, the improved relations with Beijing, combined with the willingness from the Taiwanese to show fast results in trade negotiations, give the EU a window of opportunity, where it can gain some important steps in the "Asian catching-up race". Would it be worthwhile, economically?

1.5. Results of Our Impact Assessment

To answer whether it would be worthwhile for the EU to consider comprehensive trade enhancement measures with Taiwan from an economic point of view, we have simulated the likely effects of different packages of trade enhancement measures, incorporating as many as possible of the *de facto* barriers identified. We have chosen to apply a methodology and to apply metrics that make our assessment comparable to assessments of other free trade agreements, in particular the EU-Korea FTA (See technical annex). In principle, we ask what would happen to the European economy (and the Taiwanese economy), if the EU, on top of the agreement with Korea, also concluded agreements with Taiwan on a package of trade enhancement measures.

We conclude that the EU should consider answering 'yes' if Taiwan expressed interest in initiating discussions on ambitious trade enhancement measures.

The EU should be interested in trade enhancement measures with Taiwan because:

- **Economic impacts are positive**: There will be more winners than losers. Balancing the effects shows that gains outweigh loses. Exports and production in Europe will increase. EU consumers will benefit and there is a net-increase in the demand for labour in the EU. These effects are not marginal. The potential economic gain for the European Union is close to €2 billion per year. For comparison, the potential gain from a full FTA with Korea was estimated at close to €5 billion a year and in a partial scenario would yield just over €2 billion in economic gains.

- **Static gains are large:** Taiwan is smaller than Korea and is generally more open to trade. However, relative to the size of Taiwan's GDP (which is 40 percent of Korea's) Europe's gains are just as large as with Korea. Our model results show that trade enhancement measures with Taiwan yield welfare gains to Europe of a significant size, and we judge that these gains could be large enough in it self to constitute a raison d'être for considering an invitation from Taiwan. But there is more.

In the words of Albert Einstein *"not everything that should be measured can be measured, and not everything that can be measured should be measured"*. The models and the methodologies for measuring the effects on trade enhancement measures cannot measure all likely effects of an EU-Taiwan trade agreement. In particular, we cannot use models based on average marginal responses from the past to quantify the impact of significant shifts in fundamental perceptions, as would be the case if cross-strait economic restrictions were reduced to a degree that Europeans started to see Taiwan as an opportunity rather than a risk.

- **Strategic gains perhaps just as large:** Taiwan is a springboard to China. Taiwan is today, what China will be in 10-15 years. Taiwan is to the global ICT industry, what the Middle East is to the oil business (minus the monopoly power). Trade enhancement measures will benefit those EU firms present in Taiwan today and will benefit those who will choose to go there in the future. With trade enhancement measures more will come. They will see Taiwan as their base for expansion in Asia, and in particular in China. Success in Taiwan today, will maximise chances of success in China tomorrow. With good access in Taiwan, EU firms will have the best outset for tomorrow's competition in Asia.

- **Taiwan just as attractive as Korea:** The strategic effects are hard to quantify. Taken together the static and strategic gains from trade enhancement with Taiwan may be as big as the combined static and strategic effect from an agreement with Korea. We assess that the strategic effect have major importance for the value of trade enhancement with Taiwan, while they are of smaller importance to the EU-Korea trade relation.

- **Korea will not be negatively affected:** Our analysis appears to dismiss concerns that the value of the EU-Korea agreement will be watered down by EU-Taiwan trade enhancement measures. Korea will on the one hand face more direct competition for the European market, but on the other hand, it will also increase its trade with Taiwan. When Taiwan expands its trade with the EU, it will also increase its imports from Korea. Taiwan and Korea are close trading partners, and there is a positive link between them, with Korean companies supplying for example IT components to the Taiwan electronics manufacturers.

1.6. What Drives the Gains for the EU?

While Taiwan's tariffs are generally low, there are peaks for important EU products (e.g. on automobiles and beverages), and there are substantial non-tariff barriers and barriers to service trade.

The removal of tariffs and non-tariff barriers will open the Taiwanese goods market for European producers and allow them to increase their market share in Taiwan, as will be the case for the automotive industry for example. The removal of tariffs and non-tariff barriers changes relative prices in the Taiwanese market – without the current barriers, European cars will become cheaper, while cars assembled in Taiwan (i.e. by Japanese manufactures) will not. This will induce more trade and Taiwanese will buy more European cars. A similar process will take place in the food and beverage industry, where current barriers are also high. Other European manufacturing industries like textiles will also benefit, and these are highlighted in chapter 5. Likewise, for Taiwanese electronics that becomes cheaper in EU, for the benefit of both European consumers but also for sectors using electronics as input in their production.

For services it is much the same story. The cost of supplying services to the Taiwanese market is high due to regulatory barriers. If these barriers are adequately removed, the cost of supplying services to the Taiwanese market will go down for European service providers, while domestic providers will not experience any change in their cost. As a result, European services providers in areas such as financial services, business services (e.g. engineering or accounting) and transport will increase their sales in Taiwan. These sectors will thereby increase their output, both in Taiwan and at home, and produce more value added in Europe and need more employees.

In addition, there are *allocative effects* of opening trade. Changes in demand resulting from the above price changes in both Europe and Taiwan spur reallocation of factors from inefficient sectors to more efficient sectors. With high levels of protection, inefficient producers can obtain higher market shares than their efficiency would otherwise predict. By reducing import protection, we enable consumers to access goods and services that are produced where it is most efficient; in this case: services in Europe and electronics in Taiwan.

All in all, trade will be enhanced by removing de facto barriers. European total export is expected to increase permanently to a level €9.9 billion above the current level in a scenario with significant reduction of non-tariff barriers, service barriers and removal of remaining tariffs, i.e. a scenario with full trade enhancement measures (full TEM). In a less ambitious scenario, EU exports increase by €6.2 billion (measured in 2001 prices). A light TEM scenario would yield very limited increase in exports of €0.5 billion.

The largest percentage changes in exports are expected for the services sectors. Exports of services increase by between 1.1 percent (full TEM scenario) in the case of transport services, and 3.4 percent in the case of other services such as tourism, health care services, recreation.

However, it must be recalled that service trade is much smaller than goods trade between the two partners, as goods trade make up 88 percent of the traded value. Therefore, the smaller percentage changes in large manufacturing exports, as for beverages (+1.6 percent), clothing (+0.6 percent), dairy (+0.5 percent) and not least motor vehicles (+0.4 percent) comprise much larger export changes measured in absolute terms.

Static welfare gains

- Removal of tariffs and non-tariff barriers will enhance EU's goods exports to Taiwan. For the European economy overall, this will imply more sales, more production and more employment. For the Taiwanese consumer it will mean cheaper goods, in particular cars and beverages, but also a range of other imported products.
- Removal of service barriers will increase EU's service exports and EU's foreign presence in Taiwan. For European service industries, this will imply more sales, more production and more employment.
- Reductions of tariffs and non-tariff barriers for Taiwanese imports into the EU will reduce prices for EU consumers and widen their choice; this is especially strong in electronics. Producers in this industry will face stronger competition at home, but also gain from better access to the Taiwanese market.
- Despite the increased competition in the European home market, the net effect for the European economy is a gain in welfare, output and employment. The reason is that the EU industries and services that are expected to increase their export to Taiwan will more than outweigh the losses for industries that will lose market shares due to the increase in competition from Taiwan.
- For the Taiwanese side, there will also be significant economic gains. These will mainly result from the reduction of EU tariffs on key Taiwanese export sectors such as consumer electronics, but also from reduction of barriers in services, where Taiwan has strongholds in among others in maritime transport.
- All in all, our simulations of EU-Taiwan trade enhancement scenarios predict a win-win situation whereby both partners can obtain a net gain from the removal of trade barriers. On top of these static gains, there are a number of strategic potentials that should be factored in to the analysis.

Long-term strategic opportunities

- **Boosting European productivity.** Openness to trade with Taiwan will give a boost to European productivity growth and thereby strengthen Europe's competitiveness. Taiwan performs well on most accounts related the long-term productivity enhancing effects from openness to trade. It is therefore likely that the so-called strategic effects for the European Union from trade enhancement measures are significant and may compare in size to the static gains we have quantified.

- **Gains enhanced if Taiwan make closer economic ties with mainland.** With improving economic cross-strait relations, there will be additional and positive effects adding to the gains for the European economy. First of all, it will boost economic growth in Taiwan. That in it self will have an effect on European trade – as the Taiwanese economy grows, European exports to Taiwan will go up.

- **Taiwan is ahead of China.** China is an enormous future growth market. Taiwan is one or several steps ahead of the mainland in terms of development. Financial service is an example, where Taiwan is 10-15 years ahead of mainland China. Taiwan has also served as "testing ground" for European supermarket retailers before entering the Chinese market. A similar effect can be found in other industries. Taiwan can work as a stepping stone to mainland China, and thereby to Asia's future growth market. By building relations and experience in Taiwan today, EU companies will not only tap into a vibrant domestic market, but also gain a significant head start in the competition for the Chinese mainland market. By gaining market access in Taiwan, EU firms gain unique market knowledge and can build business partnerships for further expansion in Asia.

The cross-straits economic normalization creates a favourable environment to obtain the maximum impact of an EU-Taiwan trade enhancement agreement. The removal or reduction of the *de facto* barriers will make it feasible for EU firms to exploit this opportunity, and will in turn provide the European Union with a major step ahead in the endeavour to gain a stronger foothold in Asia's leading markets of today, and maximise foothold in the leading market of tomorrow.

1.7. What Are the Implications?

What are the ways forward? In dealing with sensitive political issues it would be wise to start slowly and take one step at a time. A first step could be a partial trade facilitation agreement with some progress on customs procedures and other trade irritants. A so-called "Light Trade Enhancement Scenario". This will not yield substantial economic gains, but could pave the way for further measures. Such steps will improve the situation for European firms, but will not deliver a significant economic boost for European firms or the European economy at large.

The progress should therefore not end there. In the words of Trade Commissioner Peter Mandelson: *"Loose, shallow Free Trade Agreements (FTAs) negotiated for political reasons will not do the job - and will do the multilateral system no favours[9]"*. To maximise EU's economic gains from enhancing trade with Taiwan and to increase the trade creation effects of their bilateral strategy, the EU should aim at what could be called a **competitiveness-driven trade enhancement agreement.** Taiwan would also maximise the gains if the agree-

[9] Peter Mandelson at the External Trade Conference on *Global Europe: Competing in the world. The way forward,* held in Brussels, 13 November 2006. Speech accessed on 21 May 2008 on: http://ec.europa.eu/commission_barroso/mandelson/speeches_articles/sppm129_en.htm.

ment is ambitious and broad. Such a potential deal would need to be comprehensive in coverage and include:

- Removal of most tariffs
- New ways of addressing non-tariff barriers
- New instruments aiming at regulatory convergence for advanced services
- New provisions for investment, IPR, public procurement and competition
- Finally, any discussion on new trade policy initiatives should also cover sustainable development concerns and not the least concerns related to combating climate change.

Organisation of the report

The report is organised as follows. Chapter 2 provides and overview of the economic situation in Taiwan and the European Union. Chapter 3 presents a description of the barriers to trade and investments between the two partners. Chapter 4 reports the results from the simulation analysis, while chapter 5 offers a discussion of potential long term gains not captured by the modelling.

Chapter 2 Taiwan's Economy

This chapter gives an overview of Taiwan's economy and the current trade relation with the European Union. Especially, the bilateral trade pattern between the two economies is analysed to provide background for assessing the effects of trade enhancement measures.

Taiwan is just as large as Belgium in area, but more than twice as large in population. With more than 23 million inhabitants Taiwan is just as large as Romania in population. The majority of its people are located in large cities along the Island's coastline and the mountainous centre is sparsely populated. The population density is, therefore, very high.

Economically, Taiwan is a high-income country with an average GDP per capita similar to that of Italy's and close to the EU-27 average. It is now one of the most advanced economies in Asia. Historically, Taiwan has been one of the world's fastest growing economies. Over the past five decades, its long-term growth was just over 8 percent per annum, raking Taiwan as most rapid growing economy of any in the long-term.

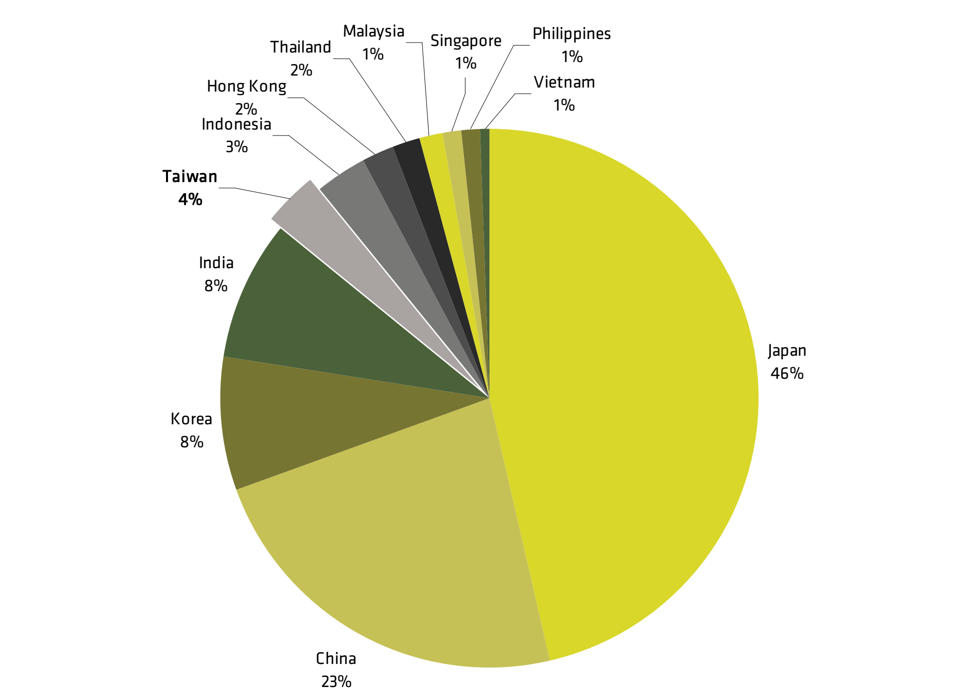
Recent growth rates have been high by European standards at around 4 percent per year. However, compared to its fellow members of the Asian tigers club, Taiwan's growth has followed a slower path. South Korea, Singapore and Hong Kong have all grown a little faster than Taiwan since 2004 and revitalising economic growth is a major challenge to Taiwan's newly elected government.

2.1. Main Indicators for Taiwan

Taiwan is the fifth largest economy in East Asia measured by GDP. Only Japan, China, Korea and India are larger. The Taiwanese economy is larger than those of Indonesia, Hong Kong, Thailand and Malaysia, cf. figure 2.1.

Comparing Taiwan with other EU trading partners in East Asia shows that Taiwan is roughly half the size of the Korean economy, and that Taiwan is significantly larger than the individual members of ASEAN.

Figure 2.1 Economies in East Asia, 2005

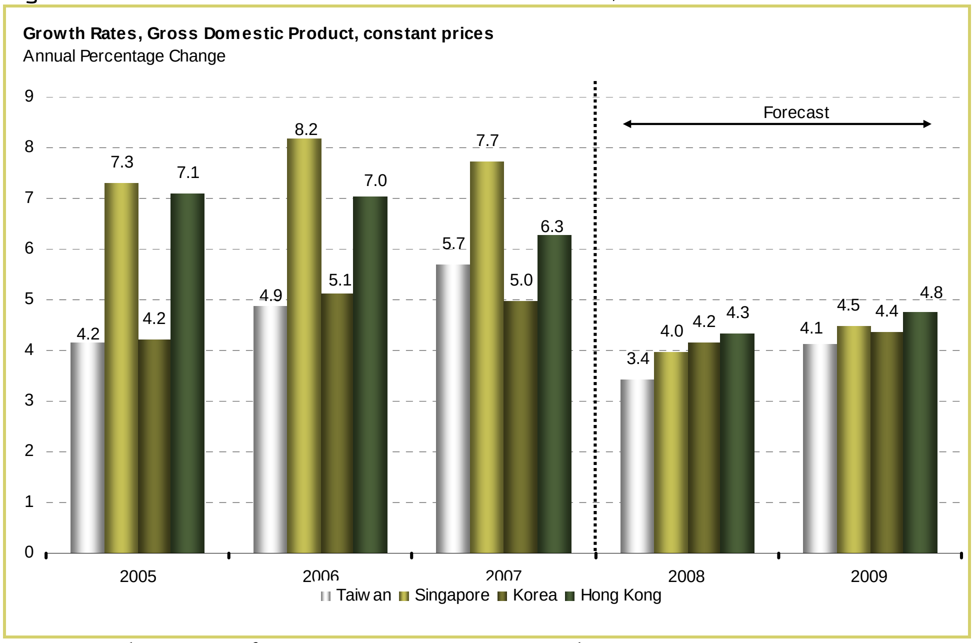


Note: The chart shows the distribution of gross domestic product (GDP) in the 12 largest economies in East Asia in 2005.
Source: Sally (2007) based on World Bank data.

Taiwan grows fast by European standards, but slower than Asian competitors. It experienced an economic growth of 4.7 percent in 2006, and forecasts from the International Monetary Fund (IMF) predict growth rates around 4 percent for the years 2007 and 2008. The Asian Development Bank predicts a high growth of 5.6 percent for 2009.

In recent years, Taiwan has grown a little slower than Korea, and both Taiwan and Korea are outperformed by the two city-states of Hong Kong and Singapore, with Singapore in the lead, cf. figure 2.2.

Figure 2.2 Growth Rates for Advanced Asian Economies, 2004-2008



Note: Annual percentages of constant price GDP are year-on-year changes
Source: International Monetary Fund, World Economic Outlook Database, April 2008

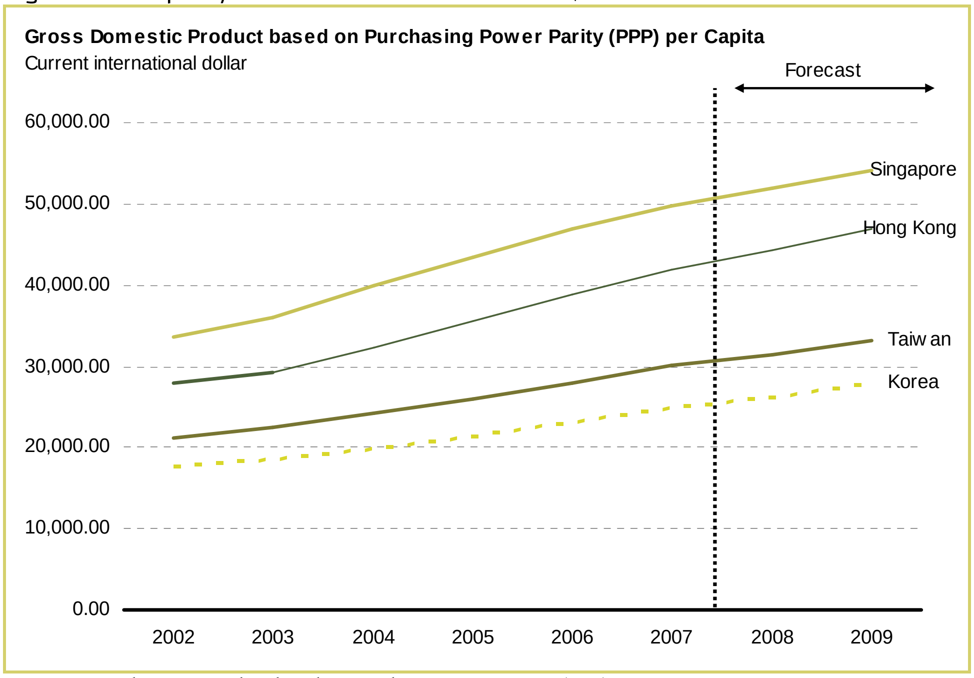
The IMF projections above might underestimate Taiwanese growth. New data from the Center for Economic Forecasting at the Chung-Hua Institution for Economic Research (CIER) – one of the two leading economics think tanks in Taipei – report a 5.7 percent real GDP growth for 2007, and predicts 4.67 percent growth for 2008 and 5.43 percent in 2009). The CIER-forecast for 2008 is higher than earlier forecasts because of:

- Better performance in China's economy
- Better performance in Taiwan's exports of IT, photo, electricity, etc.
- Better perspective on the economic relationship across the strait

The last point is difficult to predict. CIER experts have assumed the main effect to come from a lift in restrictions on visits by mainland China tourists. CIER assume that China's tourists will increase Taiwan's GDP by about 0.35 percentage points, based on an assumption that there will be 3,000 people a day, who will spend US$250 per day and stay 7 days on average. Other parts of a better economic relation with mainland China could also impact significantly on Taiwan's growth.

Nevertheless, growth in Taiwan has been slower than in Korea in recent years. The growth gap with Korea has resulted in Taiwan losing ground to Korea in terms of GDP. However, in terms of prosperity (measured by purchasing power corrected GDP per capita) Taiwan has kept its distance to Korea. Taiwan has generally a lower price level than Korea, so despite lower GDP growth, Taiwan has kept, and will keep, a higher level of prosperity than Korea, cf. figure 2.3.

Figure 2.3 Prosperity for Advanced Asian Economies, 2000-2009



Note: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP
Source: International Monetary Fund, World Economic Outlook Database, April 2008

Comparing with Europe

When analysing the impact of trade enhancement measures, it is always relevant to compare the size of the two economies in question. With close to 500 million inhabitants, EU-27 is more than 20 times bigger than Taiwan, while the production in terms of GDP in the EU is almost 40 times that of Taiwan. However, measuring GDP per capita in PPP terms the two partners' incomes are very close.

The European Union has followed a stable growth path since 2002 through 2006, averaging 2.3 percent annually. However, growth was strongest towards the end of the period and with higher growth rates expected for 2008 and 2009, cf. table 2.1 However, the Taiwanese economy, belonging to the group of 'Tiger economies', has grown almost double as fast, with an average annual growth rate of 4.8 percent from 2002 through 2007.

Table 2.1. Key Economic Indicators, Taiwan and European Union 2002-2009

								IMF Forecast	
Item		**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Population, millions of persons	Taiwan	23	23	23	23	23	23	23	24
	EU-27	484	486	487	490	492	493	495	496
Gross domestic product, current prices, billions of €	Taiwan	315	270	266	286	291	280	298	324
	EU-27	9,902	10,077	10,571	11,034	11,624	12,280	13,494	14,035
Gross domestic product, PPP, thousands current international dollar	Taiwan	23	24	25	27	28	30	31	33
	EU-27	21	22	24	26	28	30	32	33
GDP growth, annual percent change	Taiwan	4.6%	3.5%	6.2%	4.2%	4.9%	5.7%	3.4%	4.1%
	EU-27	1.4%	1.5%	2.7%	2.1%	3.3%	3.1%	1.8%	1.7%

Note: Figures for 2008 and 2009 are estimates. Composite data cover the current 27 EU members for all years. Values converted into Euro using ECB annual average exchange rate for 2002 through 2007. European Union defined as the 27 member states as of 2007 used for all years.
Source: IMF World Economic Outlook Database, April 2008 and ECB Statistical Data Warehouse.

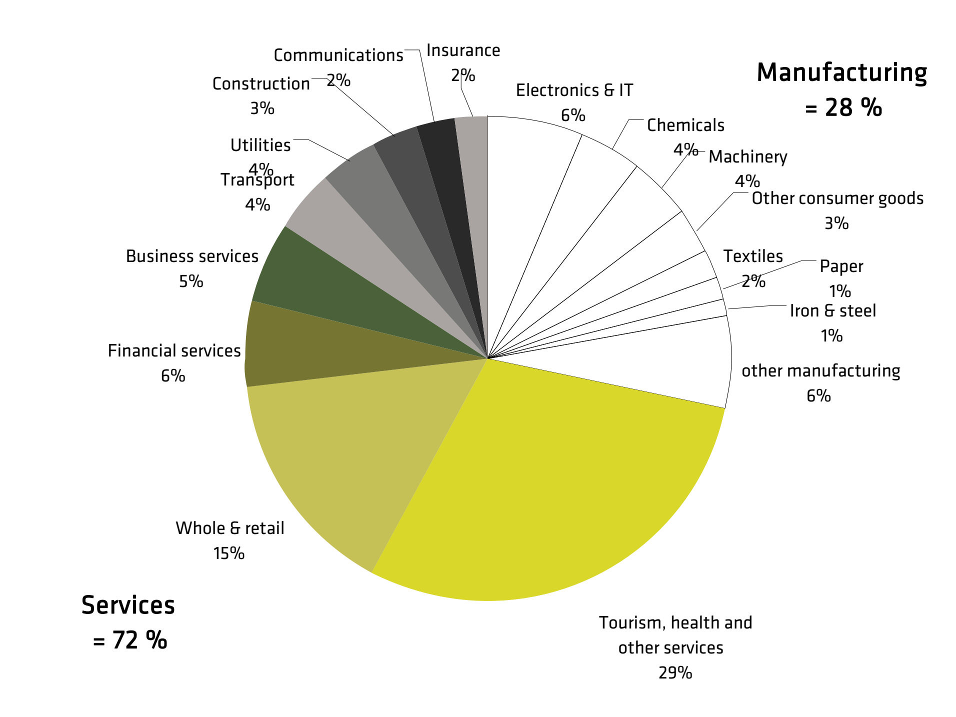
2.2. Taiwan's Production Structure

Taiwan was once known for its advanced and efficient plastics and toys industry, and is later recognised as a global leader in consumer electronics and IT products. Taiwan still has these strengths, but like most other advanced economies, the service sector dominates.

In Taiwan today, more than 70 percent of value added is in the service sector. Domestic service industries such as health care, housing and retail trade are the largest value added sectors. These sectors account for more than 45 percent of total value added in the economy, cf. figure 2.4.

Taiwan's manufacturing industries are very export-oriented and the drivers of Taiwan's prosperity. The economy is specialised in a few strong-hold sectors like electronics and IT-products, which grouped together account for more than 6 percent of total Taiwanese value added. The six largest manufacturing sectors (electronics, chemicals, machinery, consumer goods, textile and paper) account for 20 percent of total value added.

Figure 2.4 Production Structure Taiwan, 2007



Note: Shares are calculated in terms of value added. Note that the largest service sector "Tourism, health and housing" also encompasses government services, in addition to tourism, health and housing.

Source: GTAP version 7, projected to 2007

Taiwan is the world leader in many high-tech manufacturing industries. Taiwan has contributed to the world economy through its innovation in engineering and R&D especially for IT and many high tech industries. Taiwanese firms are especially strong in putting new technologies on the market, and finding efficient distribution channels for these products. In industries like chip foundries, routers, notebook computers and/or cable modems, Taiwan ranks first or second globally and holds very significant percentages of the world markets, cf. box 2.1.

Box 2.1 Taiwan's Role as World Leading Supplier of IT-products

Global No. 1	Provider of LCD Monitors Market Share: 68% Worth: $14 BILLION	Global No. 1	Provider of PDAs Market Share: 79% Worth: $1.8 BILLION
Global No. 1	Provider of Cable Modems Market Share: 66% Worth: $480 MILLION	Global No. 2	Provider of TFT-LCD Panels Market Share: 35% Worth: $7.6 BILLION
Global No. 1	Provider of Chip Foundry Service Market Share: 70% Worth: $8.9 BILLION	Global No. 2	Provider of Servers Market Share: 33% Worth: $1.8 BILLION
Global No. 1	Provider of Notebook PCs Market Share: 72% Worth: $22 BILLION	Global No. 2	Provider of Digital Still Cameras Market Share: 34% Worth: $2 BILLION
Global No. 1	Provider of Semiconductor Packaging Market Share: 36% Worth: $3.4 BILLION	Global No. 1	Provider of Wireless LAN Equipment Market Share: 83% Worth: $1.3 BILLION

Source: Taiwan External Trade Development Council (TAITRA)

2.3. THE EU-TAIWAN TRADE RELATION

Taiwan's main trading partners are the four largest economies: mainland China, Japan, the United States and the European Union. With all of these partners Taiwan runs a trade surplus, except with Japan from whom Taiwan imports more than it exports. Taiwan's closest trading partners are mainland China and Japan. It is only natural that exports to mainland China dominate, but it is perhaps surprising that Taiwan's exports to the mainland are larger than the exports to Japan and the United States combined, cf. table 2.2.

Table 2.2 Taiwan's Main Trading Partners 2007, billions of €

	Country	GDP	Taiwan Exports (fob)	Taiwan Imports (cif)	Taiwan Trade Balance	Total Trade Value
1	China	2,372	53.4	25.4	28.0	78.8
2	Japan	3,199	13.4	41.6	-28.2	55.1
3	United States	10,101	27.7	24.0	3.7	51.7
4	*European Union 27*	*12,280*	*23.8*	*18.0*	*5.7*	*41.8*
5	Hong Kong	148	30.5	1.6	28.9	32.1
6	Korea (south)	698	6.8	13.4	-6.6	20.3
	Rest of the World	–	56.3	74.1	-17.8	130.4
	Total World	–	**211.9**	**198.1**	**13.7**	**410.0**

Note: Countries are ranked by total trade value. GDP is measured in current prices, billions of €. Values converted into Euro using ECB annual average exchange rate for 2007

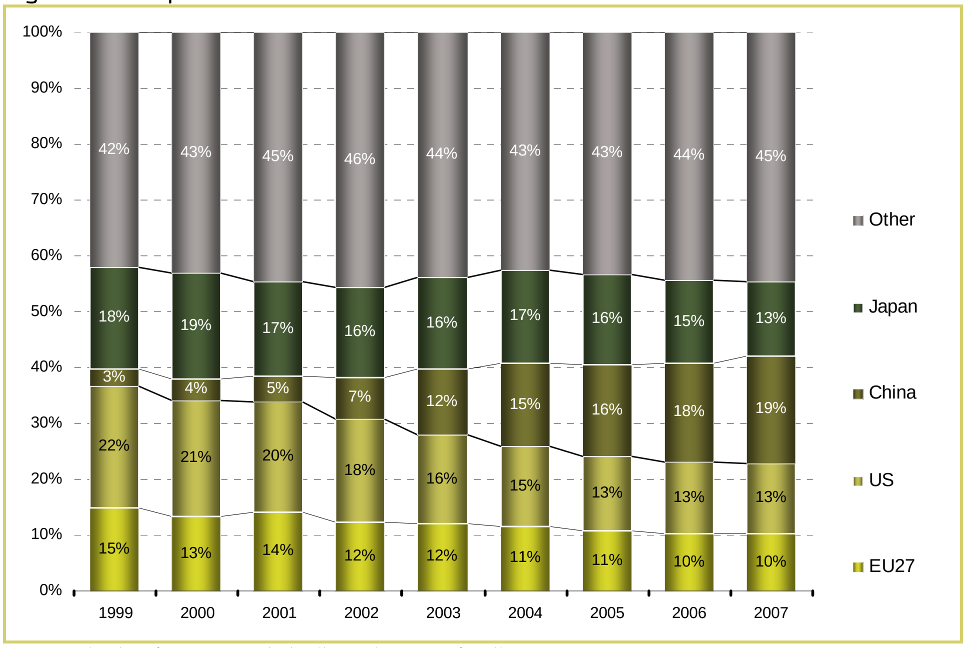
Source: Directorate General of Customs, Ministry of Finance, R.O.C., World Economic Outlook Database, April 2008 and ECB Statistical Data Warehouse

Europe is the fourth largest trading partner for Taiwan, despite being the biggest of the four economies. Comparing the trade volumes between Taiwan and the US with the trade volumes between Taiwan and the EU supports the finding that the EU-Taiwan trade relation is under-traded; there is less trade between EU and Taiwan, than between US and Taiwan, even though Europe's economy is 20 percent larger than the US economy. We shall get back to the relative position of EU and US in Taiwan, but this is a first indication that the EU is lacking behind Japan and the US in its trade relation with Taiwan.

Mainland China is Taiwan's number one trade partner in 2007. Examining the composition of trade partners since 1999, it is apparent that trade with mainland China has not always been so important for Taiwan. In 1999, mainland China made up only 3 percent of Taiwan's total external trade (import + export). Like for most other countries, China's entry on the global trading scene following its WTO accession in 2001 has set its marks on Taiwan's trade pattern. By 2007, the mainland's share of Taiwan's total trade has grown to 19 percent, cf. figure 2.5. In parallel, Taiwanese producers – like most other high income producers - have relocated production to mainland China.

Both trade with Japan, the United States and Europe has been squeezed, measured in market share, by the expanding China trade. The drop is most pronounced for the US – from 22 percent to 13 percent of total trade. The European Union has been able to avoid losing as much market share. In 1999, the European Union (EU-27) constituted 15 percent of Taiwan's total external trade, while this share dropped to 10 percent in 2007.

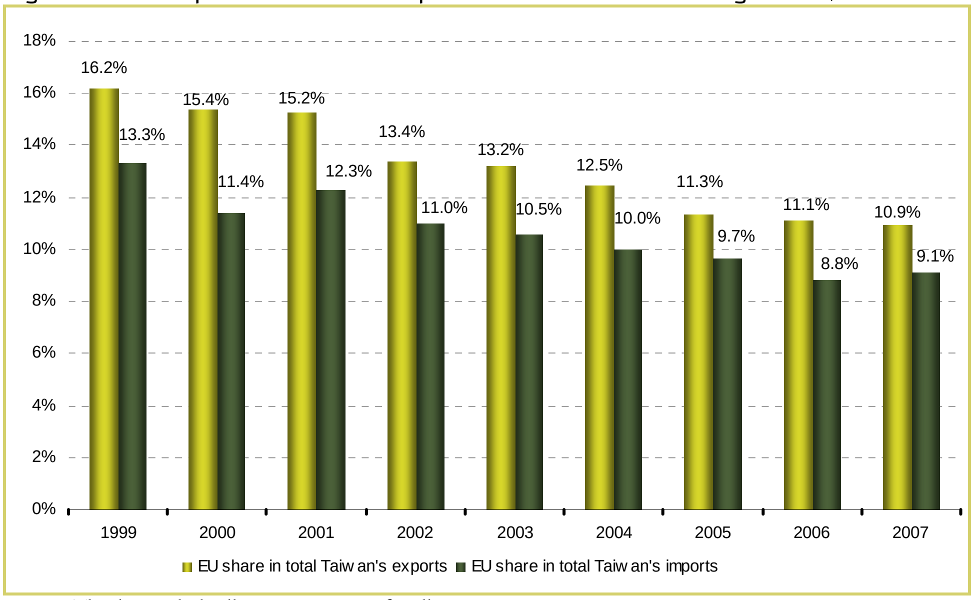
Figure 2.5 Composition of Taiwan's Total Trade



Note: The data for EU 27 include all member states for all years.
Source: Directorate General of Customs, Ministry of Finance, R.O.C., BOFT Trade Statistics,

Even though the European Union has avoided losing as much market share as others, Europe is becoming less important for Taiwan exporters, and European products are loosing position in Taiwan. While EU was the destination of 15-16 percent of Taiwan's exports by the turn of the century, in 2007 it was only 11 percent. Europe's position as exporter to Taiwan has seen less of a decline. While the EU was the source of 13 percent of Taiwan's imports in 1999, this has only dropped to 9 percent in 2007, cf. figure 2.6. EU exports seem competitive in Taiwan and resistant, but our analysis also indicates that trade is below what it could be.

Figure 2.6 The Importance of the European Union in Taiwan's Foreign Trade, 1999-2007



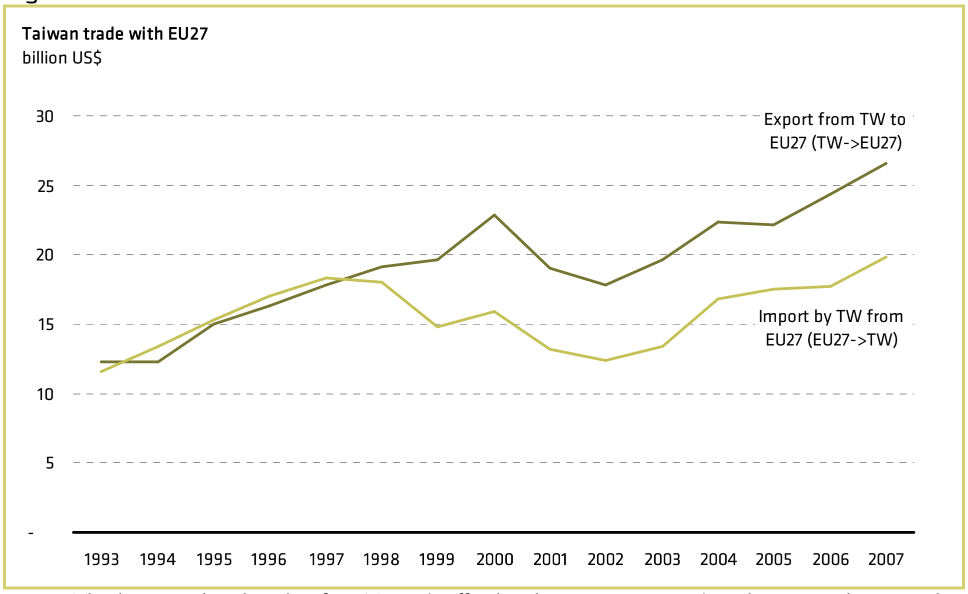
Note: The data include all 27 EU countries for all years.
Source: Directorate General of Customs, Ministry of Finance, R.O.C., BOFT Trade Statistics.

Looking at the trends, EU-Taiwan trade is back on the growth track after a bumpy ride in the after-math of the 2001 global slow-down. Going ten years back, trade increased steadily in both directions from 1993 to 1998. Then the EU experienced a down-turn in its exports to Taiwan, while imports from Taiwan to the EU continued to rise. Two years later, in 2000, this resulted in a trade surplus for Taiwan of between €5 and €10 billion.[10] At the same time, a down-turn started for Taiwan's exports to the EU. Trade in both directions declined until 2003. Some of that decline can be explained by the relocation of Taiwanese production to mainland China, and exports from Taiwan to Europe has been replaced by exports from Taiwanese production in mainland China. This is particularly the case for IT products, and most of the production of Taiwanese notebook computers now takes place in China, and a large share of China's exports of IT and electronic products are traceable to Taiwan-owned companies in China.

Since 2003, bilateral trade is increasing again. EU exports to Taiwan went up by 10 percent per year from 2003 to 2007, which is faster than the US export growth to Taiwan (US: 9%). EU imports from Taiwan also increased, but only by around 8 percent per year in the same period, cf. figure 2.7.

[10] As is often the case, trade statistics from two trade partners do not exactly match. The trade deficit according to Eurostat is around €10 billion, while the trade deficit is lower in Taiwan statistics, US$6-7 billion.

Figure 2.7 Trends in Bilateral Trade

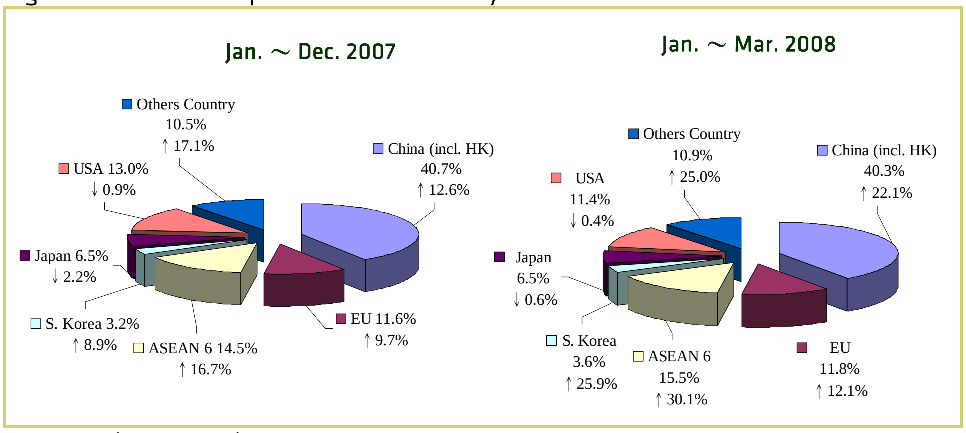


Note: The diagram is based on data from Taiwan's official trade statistics. Eurostat's trade statistics show a similar picture. We use the Taiwan data since the data include more recent data.

Source: Directorate General of Customs, Ministry of Finance, R.O.C., BOFT Trade Statistics,

The most recent trends in the Taiwanese export data also reveal a renewed importance of the EU-Taiwan trade relation. In the first quarter of 2008 exports to Europe increased by 12 percent, and with a share of 11.8 percent of total Taiwan export, Europe is, for the first time, a more important export destination than the US (being destination of an 11.4 percent share of total Taiwanese exports in 2008-Q1), cf. figure 2.8. The current recession in the US is the underlying explanation for this shift, but at the same time it is a sign that Taiwanese exporters are turning their eyes towards Europe.

Figure 2.8 Taiwan's Exports – 2008 Trends by Area

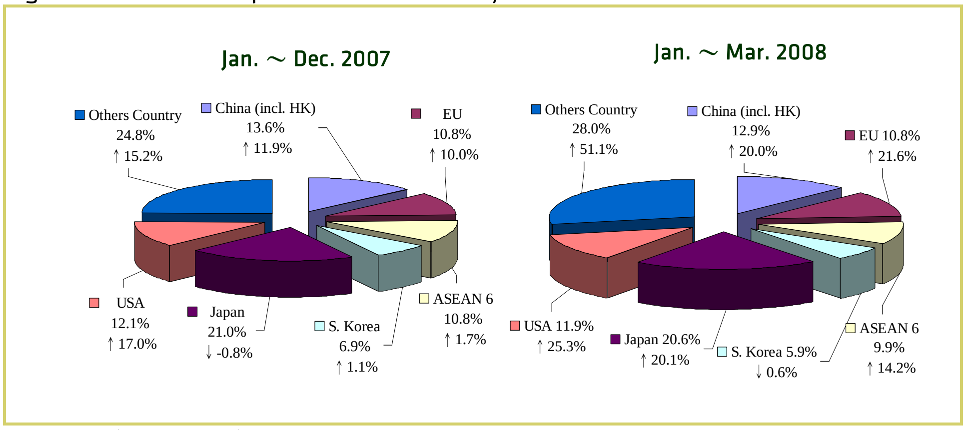


Note: Based on CIER analysis.

Source: Directorate General of Customs, Ministry of Finance, R.O.C., BOFT Trade Statistics.

The trend is also up for Europe's exports to Taiwan. Taiwan's first quarter import data reveal a 21.6 percent increase in imports from Europe, against a 10 percent increase in 2007. However, there is not indication of gaining a stronger position in Taiwan's market compared to the US, as the EU share of 10.8 percent of total Taiwanese imports in first quarter of 2008 is equal to the share it held throughout 2007, which is still lower than the 12 percent share that the US accounts for, cf. figure 2.9.

Figure 2.9 Taiwan's Imports – 2008 Trends by Area



Note: Based on CIER analysis.
Source: Directorate General of Customs, Ministry of Finance, R.O.C., BOFT Trade Statistics.

Trade with Taiwan from an European perspective

For the European Union, Taiwan ranks as the 13th largest trading partner, and the fifth most important trading partner in Asia. Bilateral trade is slightly lower than the EU's trade with India, but it is still corresponding to one third of its trade with Japan, cf. table 2.3.

As mentioned, Europe has a trade deficit with Taiwan as it imports twice as much as it exports to Taiwan. Europe's deficit with Taiwan is almost the same size at its deficit with Korea, even though Korea is double the economic size of Taiwan, but it has to be noted that Europe is also trading relatively more with Taiwan than with Korea. While Korea's GDP is 2.5 times that of Taiwan's, European trade with Korea is only 1.6 times the trade with Taiwan. Thus, relative to its size, Taiwan is a closer trading partner to Europe than Korea, which is mainly explained by Taiwan's openness to trade compared to Korea's. Europe has historically been facing lower tariffs in Taiwan than in Korea – a picture which of course will be reversed, if the EU concludes a free trade agreement with Korea and not with Taiwan. Taiwan's tariffs and other trade barriers are discussed in the next chapter.

Table 2.3 The European Union's Main Trade Partners 2007, billions of €

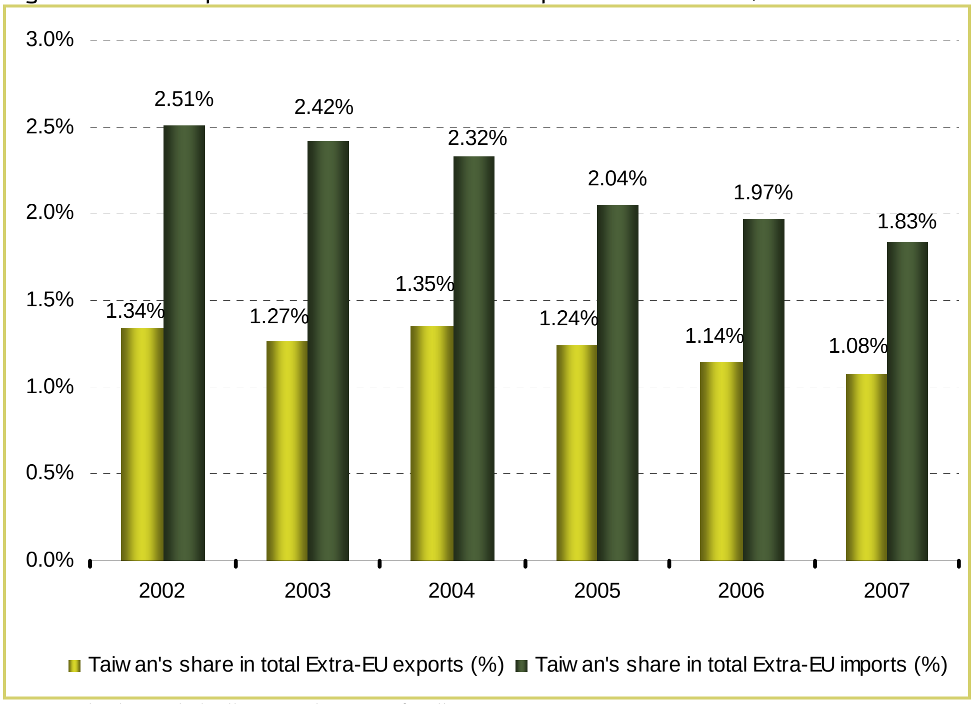
			European Union			
	Country	GDP	Exports (fob)	Imports (cif)	Trade Balance	Total Trade Value
1	United States	10,101	261.30	180.88	80.42	442.18
2	China (excluding Hong Kong)	2,372	71.74	231.27	-159.53	303.01
3	Russian Federation	941	89.05	143.52	-54.47	232.57
4	Switzerland	309	92.67	76.75	15.92	169.42
5	Japan	3,199	43.72	77.89	-34.17	121.61
6	Norway	286	43.35	76.63	-33.28	119.98
7	Turkey	484	52.58	46.89	5.69	99.47
8	Korea (South)	698	24.78	39.38	-14.60	64.16
9	India	802	29.44	26.24	3.20	55.68
10	Brazil	958	21.29	32.61	-11.32	53.90
11	Canada	1,045	25.89	23.26	2.63	49.15
12	South Africa	206	20.47	20.92	-0.45	41.39
13	***Taiwan***	***280***	***13.33***	***26.07***	***-12.74***	***39.40***
	Rest of World	–	449.10	421.92	27.18	871.02
	Total World	–	1238.71	1424.23	-185.52	2662.94

Note: Countries are ranked by total trade value. GDP is measured in current prices, billions of €. Values converted into Euro using ECB annual average exchange rate for 2007

Source: ComExt Eurostat, IMF World Economic Outlook Database, April 2008, and ECB Statistical Data Warehouse.

Over time, the European trade relationship with Taiwan has decreased in importance. Examining the partner's import share of total imports to the European Union, the share has dropped from 2.5 percent in 2002 to 1.8 percent in 2007. This pattern is also the case for the share of total exports from Europe with destination in Taiwan. The share was 1.3 percent in 2002 and this has dropped to 1 percent in 2007. Thus, Taiwan is slowly losing market shares in Europe, cf. figure 2.10.

Figure 2.10 The Importance of Taiwan in the European Union's Trade, 2002-2007



Note: The data include all 27 Member States for all years.
Source: Eurostat ComExt database 2008

2.4. Breakdown of Trade by Products and Sectors

EU-Taiwan trade is a two-way street. Goods and services are traded in both directions within the same sectors. The trade relation is dominated by so-called intra-industry trade, where – as an example - EU sells electronics to Taiwan and Taiwan sells electronics to Europe. The trade is concentrated in 5-8 key sectors, and the detailed trade statistics shows a trade deficit for the EU since 1998/2000.

The vast majority of the trade deficit can be explained by a deficit in electronics and IT, and the increase in the trade deficit also coincide with the rapid increase in Europe's demand for IT-hardware, and especially the laptop computers, which Taiwan is the global number one producer, cf. table 2.4.

Table 2.4 EU Trade balance with Taiwan

		EU Balance with...	
Harmonised System Sections:		**World**	**Taiwan**
TDC VI (Ch. 28-38)	Products of the chemical or allied industries	67.802	1.656
TDC IV (Ch. 16-24)	Prepared foodstuffs; beverages, spirits and vinegar; tobacco...	12.054	539
TDC XX (Ch. 94-96)	Miscellaneous manufactured articles	-11.920	-651
TDC XV (Ch. 72-83)	Base metals and articles of base metal	-12.523	-970
TDC XVI (Ch. 85-85)	Machinery and mechanical appliances; electrical equipment; parts	39.134	-13.280
	All other products	-277.100	-356
Total		**-184.385**	**-12.947**

Note: Based on 2006 trade flows in goods. Services are not included. World excluding Intra-EU trade and European Union: 25 members.
Source: EUROSTAT (Comext, Statistical regime 4)

Therefore, before getting too worried about this trade deficit, one should take the impact on European firms and consumers into account. European imports of these key IT-products that has fuelled much of Europe's productivity growth in recent periods. Since the import is from the world's most efficient producers it a modern example of welfare enhancing global trade. European firms and consumers would be much worse off, had they not access to those products.

What is Europe exporting to Taiwan?

As seen from above, Europe has a surplus with Taiwan in chemicals and food products (plus in 10 minor product categories). Adding to that is a growing trade surplus in services, which in 2005 was estimated at €1.3 billion in favour of Europe according to DG Trade figures.[11]

To grasp the vast diversity of products traded between the two advanced economies we use the standard sector aggregation that is used in almost all economic models of global trade. There are many advantages, and one is that it also includes services trade. The analysis show that eight sectors account for more than 80 percent of Europe's total export to Taiwan. Three of those are services. While the sectors aggregation can give an overall impression, one needs to look at the details of the trade flows in each direction to understand to trade relation.

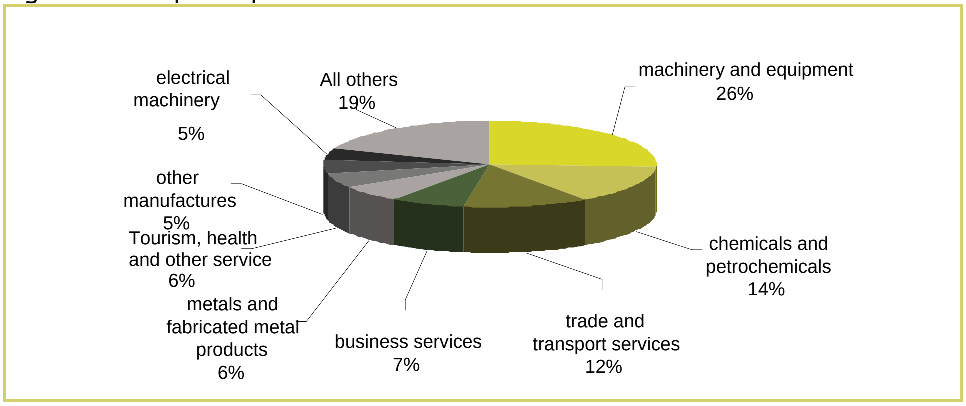
The sector called *Electrical machinery* is the largest export category with 26 percent of total exports. This sector includes more than 900 individual product items (HS 6- digit) and contains a wide variety of advanced machinery serving as essential input to Taiwan advanced manufacturing sectors. The largest individual products in the category are inputs to Taiwan's semiconductor industry (e.g. Instruments and apparatus for measuring or checking electrical semiconductor wafers or devices) of which Europe apparently is major provider. Other products are wind-powered electric generating sets and medical, surgical, dental or veterinary devises.

[11] See DG Trade factfile, November 2007, "EU bilateral trade and trade with the world - Taiwan", http://trade.ec.europa.eu/doclib/html/111573.htm

Chemical products are the second largest export category, accounting for 14 percent of Europe's export to Taiwan. Again, the largest individual products in the category are inputs to Taiwan high-tech manufacturing sectors, e.g. chemical elements doped for use in electronics account for 10 percent alone of Taiwan's imports in the Chemical category. Other large imported chemicals are in the medical field.

Services are major export sectors for Europe to Taiwan. Around 25 percent of Europe's total export value to Taiwan comes from cross-border trade in services. Transport services is in fact the third largest overall export sector for Europe to Taiwan accounting for 12 percent of Europe's total export to Taiwan. This relates to Taiwan's role as logistics hub for East Asia mostly due to its ports and its shipping industry and to Europe's leading role a global supplier of shipping and maritime transport services with leading companies as Maersk and Mediterranean Shipping Company. Business services is the fourth largest category accounting for 7 percent of total European export to Taiwan, cf. figure 2.11.

Figure 2.11 Europe's Exports to Taiwan



Note: Shares are calculated according to value of trade. Cross-border service trade included.
Source: GTAP version 7, projected to 2007

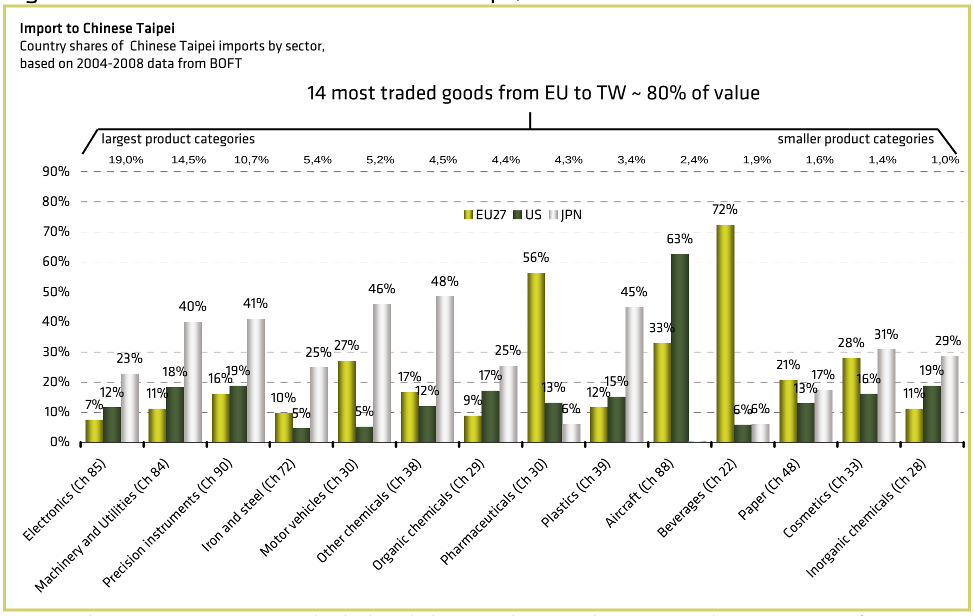
We saw earlier (cf. figure 2.5) that Europe is lacking behind Japan and the US on aggregate trade. Looking at a more detailed level of product groups lead to the same conclusion, and we show that Europe is lacking behind Japan and the US in the seven most important product groups covering more than 60 percent of the goods Taiwan is importing from Europe.

The largest product group of Taiwan's import from Europe is electronics (Chapter 85). Europe has a market share of Taiwan electronics imports of 7 percent (measured in value), while the US has a share of 12 percent and Japan a share of 23 percent. The remaining 58 percent of the imports are from other origins (e.g. Korea which is the source of 16 percent of Taiwan's electronics imports). While having only around half the sales volume of the US and less than one third of the sales volume of Japan, electronics is still the most important product group for Europe measured in value, and it covers 19 percent of Europe's goods exports to Taiwan, cf. figure 2.12. Europe is also behind the two main competitors in the very important machinery sector, where Japan has a clear lead.

Only in the fourth largest product group, iron and steel (Chapter 72), is Europe having a higher share than one of its main competitors. Taiwan is importing 10 percent of its iron and steel imports from Europe, while only 5 percent from the US. Europe is still behind Japan which on average is the source of 25 percent of the iron and steel imports. Still, iron and steel only make up around 5 percent of Europe's total goods exports to Taiwan.

There are also product groups where Europe is the leader. These are among the smaller product groups. Europe is leading in pharmaceuticals (Chapter 30) and in beverages (Chapter 22). Europe is the source of more than half of Taiwan's import of pharmaceuticals (56 percent), and is far ahead of its competitors from the US (13 percent) and Japan (6 percent). Taiwan's beverage import is very much dominated by European products, which covers 72 percent of Taiwan's import. Japan and the US have each a 6 percent share of Taiwan beverages import. While Europe is leading in these groups, they are still small compared to other sectors. Pharmaceuticals is 4.3 percent of total Taiwanese goods import from Europe, and beverages constituted 1.9 percent of total. All in all we can say that Europe is lagging behind US and Japan in the high value markets, and leading in some of the smaller import markets.

Figure 2.12 The 14 Most Traded Product Groups, 2004-2008



Note: The HS-2 aggregation is used, which includes around 100 product groups (Chapters). 80 pct of Europe's goods exports to Taiwan are in the 14 chapters shown in the diagram. We use data for the most recent four year period from 2004-M2 to 2008-M2. Re-imports & re-exports are excluded. Service trade is not included.

Source: Directorate General of Customs, Ministry of Finance, R.O.C., BOFT Trade Statistics.

What is Taiwan exporting to Europe?

Five sectors account for about 80 percent of Taiwan's total export to the European Union. These are *Electrical machinery* with 40 percent of total Taiwan export to Europe, *Other machinery and equipment* accounting for 20 percent. The sectors *Chemicals, Metals* and *Other manufacturing* each account for 5 to 7 percent of total export (including services exports) to Europe, cf. Figure 2.13.

Electrical machinery was the largest sector for European exports to Taiwan. In the other direction it is by far the largest category of exports accounting for 40 percent of Taiwan's total exports to Europe. However, the content is much different than for Europe's export to Taiwan. Taiwan's export in the sector covers mostly electronics and IT-equipment including well-known consumer electronics such as mobile phones and digital cameras, and key IT-products like laptop computers. One might think of these as Taiwanese products (e.g. some the rising Taiwan PC brands such as Acer and Asus), but one should also keep in mind that this trade is also containing many European products being produced in Taiwan and exported back to Europe. In our globalised economy this is just as much "our own products" or products thought of as American, and Taiwan is simply the hub in the world economy currently producing these advanced goods most efficiently. The category is diverse, with more than 150 individual products. Some of the larger products in this category are semi-final products sold in Europe such as modems and disk drives.

The sector *Machinery and equipment* is the second largest category accounting for more than 20 percent of Taiwan's export to the European Union. The title is perhaps a little misleading in the case of Taiwan's trade with the EU, as the single most important product in the sector is LCD-screens (indicator panels incorporating liquid crystal devices (LCD's) or light emitting diodes (LED's)).[12] Trade in LCD-screens has grown rapidly and has become the single largest export good from Taiwan to Europe. In 2006 it accounted for 5 percent of all goods traded from Taiwan to the EU. In 2007 the exports to Europe grew 88 percent according to Taiwan export statistics and are approaching a 10 percent share of total exports. This increase is a result of the fast shift in European consumer preferences for flat-screens and the fact that many world leading LCD panel producers are based in Taiwan, as for example leading maker, Chi Mei Optoelectronics.

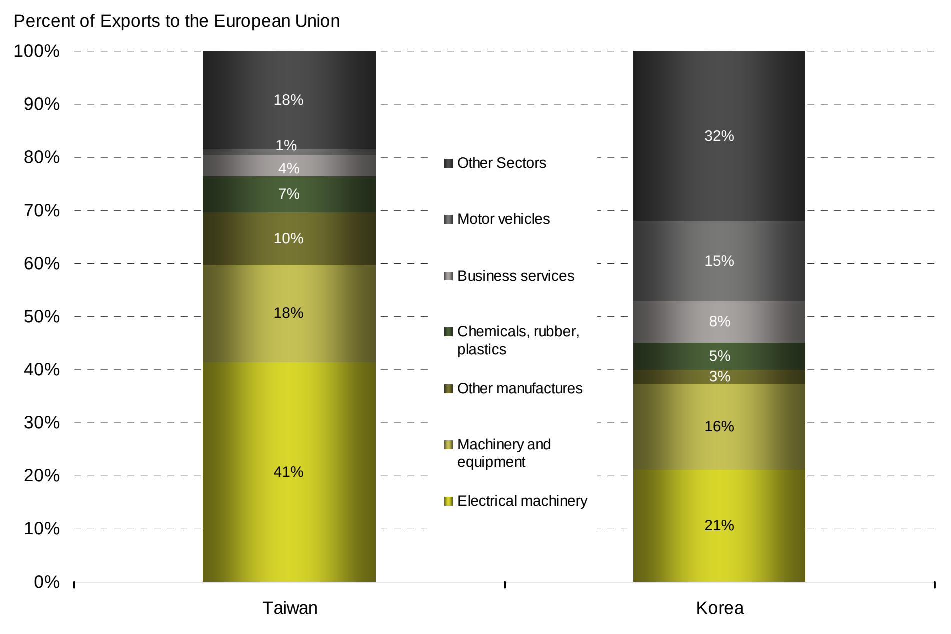
Apart from the LCD screens, the machinery producers in Taiwan are very strong in the second tier of machinery, especially in plastics processing machinery. Taiwan producers are delivering machinery to many parts of the world, and in particular to clients who do not require tier-one machinery (the outmost advanced machinery). World tier-one leaders in machinery are from Europe (mainly Germany), and Taiwanese machinery producers also import inputs from such first tier producers, but also see a significant increase in demand from Eastern Europe, where they also have a strong presence with localisation of production facilities. Similarly, some EU machinery producers have delocalised some of their production to Taiwan to take advantage of the skilled workers and competences in the Taiwanese industry.

Taiwan and Korea are economically very similar with specialisation in high-end telecoms, it and electronics products. However there are also differences. Taiwan is even more specialised in terms of exports to Europe, with a strong representation in electronics. Korea's third largest export sector is motor vehicles making up 15 percent of Korea's exports to Europe. The share of motor vehicles (including parts) from Taiwan is only 1 percent of Taiwan's export to Europe.

---

[12] The fact that LCD screens belong to this sector is a consequence of the GTAP models sector aggregation.

Figure 2.13 Composition of Exports from Taiwan and Korea



Note: Shares are calculated according to value of trade. Cross-border service trade included.
Source: GTAP version 7, projected to 2007

Taiwan's strong export concentration is even found at the product level. Taking just the top 25 six digit products from the trade statistics make up for 54 percent of the Taiwan's goods export to Europe.

So far we have focused mostly on trade in goods, which constitute 88 percent of total trade between EU and Taiwan. The remaining 12 percent is cross-border trade in services.

2.5. Bilateral Trade in Services

Due to its intangible nature, data on service trade is much scarcer than for goods, and there is a risk of underestimating the importance of service trade, since not everything that should be accounted for is accounted for.

Nevertheless, cross-border trade in services between the two partners appears to be relatively small compared with goods trade. The main bulk of service trade is taking place in *business services* and *transport services*. For the service trade flow from Europe to Taiwan these two sectors account for 56 percent of the total service trade, whereas *Tourism, health and other service* and *Trade services* account for 30 percent, and the rest of the service sectors show almost no trade. The same pattern characterises the flow of services to Europe, with 56 percent of total service trade accounted for by the *Business services* and *Transport services,* cf. table 2.5.

Table 2.5 Bilateral Trade in Services – Cross Border Trade

Sector	Export from Taiwan to EU	Share of total cross border service trade from Taiwan to EU	Export from EU to Taiwan	Share of total cross border service trade from EU to Taiwan
Business services	916	28.2%	1,174	32.0%
Transport	916	28.2%	883	24.1%
Tourism, health and other service	559	17.2%	618	16.9%
Trade services	374	11.5%	479	13.0%
Financial services	156	4.8%	165	4.5%
Insurance	130	4.0%	127	3.5%
Communications	112	3.4%	118	3.2%
Construction	80	2.5%	95	2.6%
Utilities	2	0.1%	7	0.2%

Note: Millions of 2007 €. Values converted into Euro using ECB annual average exchange rate for 2007
Source: GTAP version 7 projected to 2007 and ECB Statistical Data Warehouse.

Cross border trade in business services encompass all activity that is supplied across the border, but paid for in the home country. Thus, the Taipei branch of the international consultancy Deloitte that supplies services to European investors is included, as well as domestic suppliers if they sell services to a European firm.

Transport services in Taiwan are including the large shipping companies of Evergreen and Yang Ming that are belong to the top world supplies of transport services. In addition, one of the national airline carriers, EVA, is included.

2.6. Foreign Direct Investment and Other Investment

In terms of investments, EU has invested much more in Taiwan than Taiwan has invested in Europe. Foreign direct investment are particular important, since the investment bring with them new technology, new management skills and that in turn spills over to domestic firms. Such productivity spillovers can be significant, according to the FDI study from Copenhagen Economics[13]. Other types of investment, where investors do not take a lasting interest in the foreign company do not carry the same productivity spillovers, and are less interesting from an economic growth perspective.

Taiwan's investments in the EU are much smaller than expected, and Europe is receiving much less than its proportional share of Taiwan's outward investments. Taiwanese investments in the US are about three times as large as in Europe. The main destination for Taiwanese investment is, not surprisingly, in mainland China, which is the destination of 55 percent of the approved outward investments (so-called indirect mainland investments).

The EU is investing more in Asia, than Asia is investing in the EU. Total FDI by European firms in the main Asian economies was €322 billion in 2006, where as total FDI from the main Asian economies amounted to €174 billion in the same year, cf. figure 2.14.

[13] See "FDI and regional development", Copenhagen Economics, 2006.

Taiwan is only the seventh largest destination of European FDI in Asia. EU investments in Taiwan are much smaller than in the fellow Asian tigers in Hong Kong, Singapore and South Korea. EU investments in these three economies have more than doubled since 2000, and investments in Hong Kong more than tripled (increased by 243 percent since 2000).

EU investments in Taiwan only increased by 57 percent since 2000, and given that Taiwan has grown at comparable rates as its fellow tigers, investments in Taiwan should have grown much more, based alone on the fundamental economic indicators. There are other factors influencing the investment decisions, and the mystery of "missing investment" in Taiwan is assumed to be closely linked to investor's evaluation of non-economic risk factors.

Figure 2.14 Foreign Direct Investment (FDI) Stocks, EU and Main Asian Markets

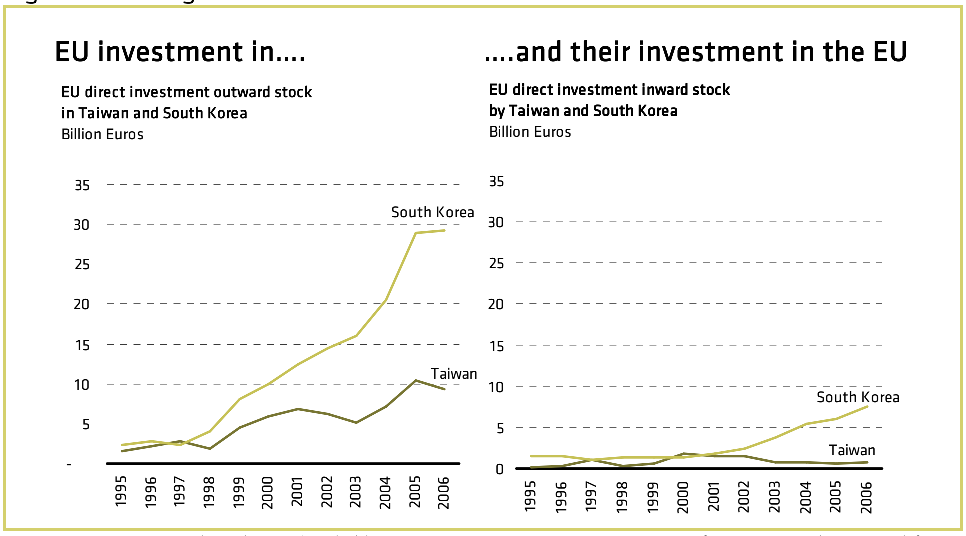
EU investments in Asia			Asian investments in EU		
Destination	**FDI Stock 2006** (€ bn)	**Increase since 2000** (pct.)	**Origin**	**FDI Stock 2006** (€ bn)	**Increase since 2000** (pct.)
1. Hong Kong	83,4	243%	1. Japan	99,1	72%
2. Japan	75,5	72%	2. Singapore	40,0	320%
3. Singapore	54,3	151%	3. Hong Kong	16,4	52%
4. China (ex HK)	32,7	114%	4. South Korea	7,5	450%
5. South Korea	29,2	191%	5. China (ex HK)	3,5	576%
6. India	13,4	129%	6. India	3,2	412%
7. Taiwan	**9,3**	**57%**	7. Malaysia	2,7	178%
8. Thailand	9,2	62%	8. Philipines	0,9	1121%
9. Malaysia	8,9	-9%	**9. Taiwan**	**0,8**	**-56%**
10. Philipines	5,9	32%	10. Thailand	0,2	-19%
Total	**322,0**		**Total**	**174,3**	

Note: The table to the left shows EU direct investment outward stocks detailed by extra EU destination country. The table to the right shows EU direct investment inward stocks detailed by extra-EU investing country.
Source: Eurostat

Overall, Taiwan's FDI in the EU is small and far from proportionate to the level of investments elsewhere or to the high amount of trade taking place between the two. According to Eurostat data, the stock of Taiwanese direct investment in the EU was at €0.8 billion at the end of 2006. Taiwanese FDI stock in EU decreased by 56 percent since 2000 according to Eurostat data.

Looking at the investments from Korea into the EU, we can see that closer economic relations with Asian economies can lead to significant increases in their investments in Europe. Korea's FDI stock in Europe grew by 450 percent since 2000, and Korea is now the fourth largest Asian investor in Europe, with an FDI stock of €7.5 billion.

Figure 2.15 Foreign Direct Investment: EU-Taiwan and EU-Korea



Note: EU FDI inward stocks are detailed by investing extra-EU country. Data are for EU15 until 2000 and for EU25 as from 2001. Foreign direct investment (FDI) is the category of international investment made by a resident entity (direct investor) to acquire a lasting interest in an entity operating in an economy other than that of the investor (direct investment enterprise). The lasting interest is deemed to exist if the investor acquires at least 10 percent of the equity capital of the enterprise. FDI stocks are the value of FDI assets (for outward FDI stocks) and FDI liabilities (for inward FDI stocks) at the end of the reference period

Source: Eurostat.

We now turn to see the investment picture from the other side, based on Taiwanese investment data. European interest in investing in Taiwan is increasing, cf. box 2.2.

Box 2.2 Example of FDI: Dutch High-Tech Firm Makes R&D Investment in Taiwan

The world's largest semiconductor stepper supplier, ASM Lithography (ASML), has decided to invest a total of about €120 million in setting up an R & D and operating centre in Taiwan.

ASML, headquartered in the Netherlands, commands an over 70% share of the world market for semiconductor steppers equipment. After evaluating investment environments of Taiwan and South Korea, the company resolved to funnel €120 million (NT$5 billion at the € /NT$ rate at 43) into the island due to the availability of a fully developed semiconductor industry, in which Taiwan Semiconductor Manufacturing Co. (TSMC) even boasts a patented immersion lithography technology.

To achieve a local content rate of 60% for semiconductor equipment, the Industrial Development Bureau (IDB) has been actively soliciting foreign makers to set up operations in Taiwan, thereby helping to upgrade the island's semiconductor equipment manufacturing technology.

According to official sources, after setting up its R & D and operating centre in Taiwan, ASML can enjoy a five-year break for income taxes and have its royalty exempted from taxes. Moreover, the Taiwan agencies will step up soliciting relevant component suppliers to station in an industrial zone of Taoyuan County, northern Taiwan, where ASML will set up its operating centre.

Note: ASML was founded in 1984 in the Netherlands as a 50/50 joint venture between Philips and Advanced Semiconductor Materials International (ASMI)

Source: Taipei, Jan. 4, 2007 (CENS)

European investment in Taiwan – seen from Taiwan

Taiwan's investment statistics include both foreign direct investment and other types of investments (such as private equity). The latter dominates.

By the end of 2007 the accumulated flow of investments into Taiwan (including both FDI and other investments such as private equity) by European registered firms was almost US$25 billion. Estimates of Taiwan's investments in Europe range between US$1 and US$2 billion.

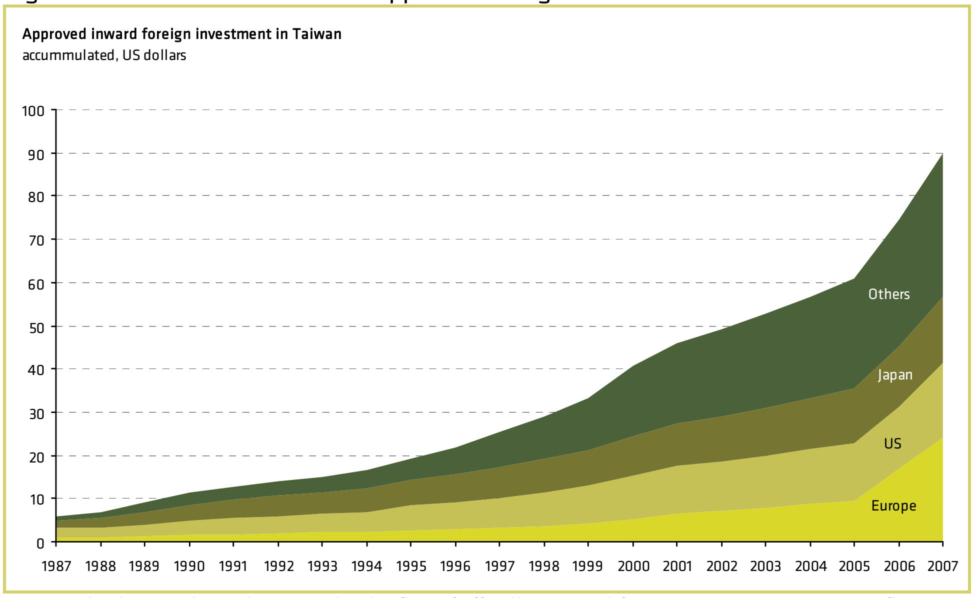
Compared to other investors in Taiwan, Europe is probably the largest foreign investor when FDI and other investments are added together. The accumulated inflow of European investment is larger than for any other country, but as it is unknown how many investments have pulled out again it remains uncertain whether Europe also is the current largest investor in Taiwan. Since the statistics cover both actual foreign direct ownership as well as other types of investments in Taiwan, the statistics do not show FDI in isolation.

According to Taiwanese investment data, the EU became the largest foreign investor in Taiwan in 2006 with an approved total foreign investment of US$7.5 billion. In 2007 the EU almost repeated the record numbers with an investment of US$7.1 billion. The flow of investment from the EU into Taiwan are at record levels – up from a previous level of around US$1 billion per year - and the new EU investments is now worth half of the yearly investment inflow to Taiwan according to statistics from Taiwan's Ministry of Economic Affairs.

As a result, the accumulated inflow of European investment into Taiwan increased to almost US$25 billion, cf. figure 2.16. The EU now accounts for 25 percent of the accumulated inflow of all investments in Taiwan, which is the largest share, ahead of the United States (19 percent) and Japan (17 percent). The majority of the European investments in Taiwan concentrate in the chemical manufacturing industry, the electronic and electrical manufacturing industries, and the finance and insurance sectors. While investments in manufacturing dominated in the past, investments in the service sectors have taken over in recent years as the main target for European investments in Taiwan.

Finance and insurance accounted for almost 30 percent of total investment. Major European financial service firms like ABN Amro, BNP, Deutsche Bank and ING are all active players in Taiwan's financial market, but a large share of the recorded investments are from private equity firms or EU-registered holding companies of, for example, US firms. The share of true European FDI in the total investment is unknown, and assumed to be small.

Figure 2.16 Accumulated Inflows: Approved Foreign Investments in Taiwan since 1958

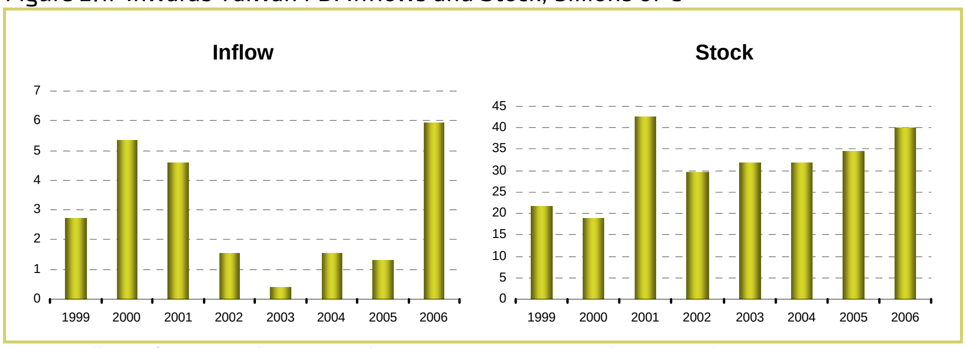


Note: *The diagram shows the accumulated inflow of officially approved foreign investment. Data on outflows when investors leave again are not accounted for, and therefore the diagram does not show the development of the stock, but simply the accumulated value of inflows. Both FDI and other types of investment are included. Other investment than FDI dominates.*

Source: *Investment Commission, Ministry of Economic Affairs, Yearly Report 2007.*

According to international statistics from UNCTAD, the stock of FDI in Taiwan from all sources was around €40 billion in 2006. This is short of the €62 billion[14] recorded as accumulated inflows above. When assessing the above data on the accumulated inflows, one shall recall that a portion of the *inflows* become *outflows* at some point. Some foreign investors leave again. Furthermore, FDI is only a fraction of total foreign investments.

Figure 2.17 Inwards Taiwan FDI Inflows and Stock, billions of €



Note: *Billions of 2007 €. Values converted into Euro using ECB annual average exchange rates.*

Source: *UNCTAD FDI Database 2008*

In 2001, when Taiwan felt the global slump in foreign direct investments just as hard as others, the total FDI stock dropped almost 25 percent according to UNCTAD figures. Global FDI flows generally recovered in 2003, but for Taiwan the recovery was not until

[14] €62 billion equivalent US$75 billion at 1.2 US$/€ in 2006

2006, when inflows went back to previous levels and the stock foreign direct investment was back to its 2001-level, cf. figure 2.17. The international sources of FDI statistics do not publish data revealing the share of European share in the current FDI stock in Taiwan.

Box 2.3 Examples of EU Companies Currently Present in Taiwan

Sector	Company
Financial and Business Services	Allianz Global Investors
	BNP Paribas
	Calyon
	Deutsche Bank
	HSBC
	PricewaterhouseCoopers
	Standard Chartered Bank
Life Insurance	Aegon ING PCA Life
Transport service	British Airways
	DHL
	KLM Royal Dutch Airlines - Air France
	Maersk
Electronics/High-tech	Alcatel
	BASF Electronic Materials
	Ericsson
	Infineon
	Nokia
	Philips
	Schneider Electric
	Siemens
Chemicals	BASF
	Ciba
	Clariant Degussa
Automotive	Audi
	Mercedes Benz
	Volkswagen
Consumer goods, retail,	Burberry
wholesale	Carrefour
	DIAGEO
	Heineken
	L'Oreal
	Louis Vuitton
	Nestle
	Unilever
Pharmaceuticals	Bayer
	GlaxoSmithKline
	Merck

Note: This list contain examples of some of the many EU firms operating in Taiwan – a full list of ECCT members is available at http://www.ecct.com.tw/index.php?option=com_sobi2&letter=A&Itemid=143
Source: ECCT membership list

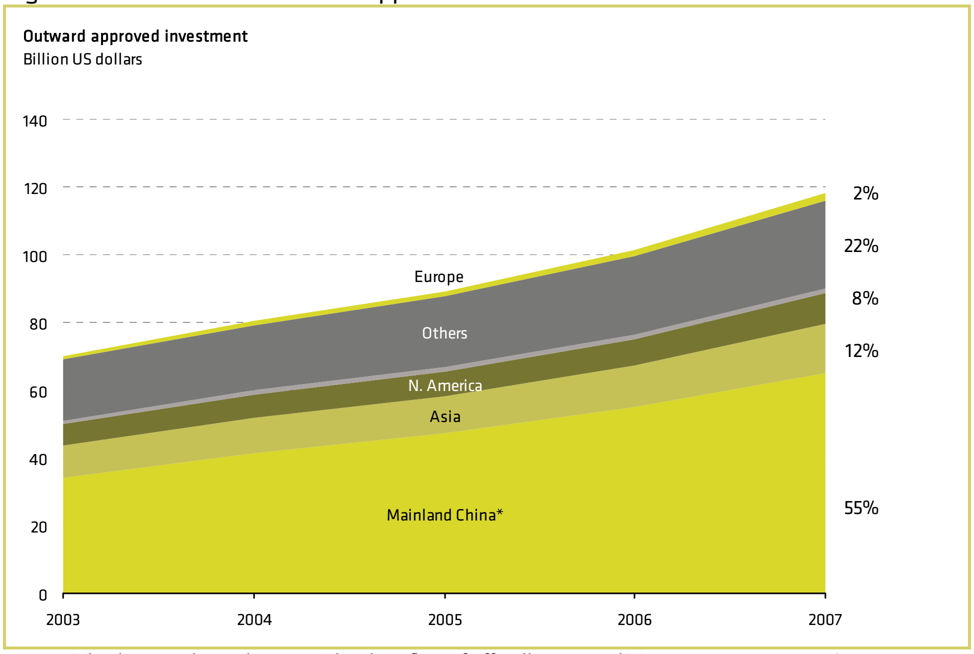
Taiwan's investment in Europe – seen from Taiwan

According to Taiwanese sources, the accumulated outflow of approved Taiwanese investments in Europe was US$2.4 billion, but again the Taiwanese statistics include both FDI and other types of investments.

Flows of investment from Taiwan to the EU over recent years have been low. Even if investment from Taiwanese companies registered as originating in Hong Kong is taken into account as done by Taiwan's Ministry of Economic Affairs, the conclusion is still the same: there is very little Taiwanese FDI in the EU.

By the end of 2007, only two percent of the accumulated outward investments since 1991 approved by the Taiwanese authorities have gone to Europe. For comparison, 8 percent went to North America. Mainland China is the major destination receiving an accumulated share of 55 percent of all direct investments originating in Taiwan. Taiwan's investments in Japan are smaller than in Europe. Other Asian countries are destinations for 8 percent of outward Taiwan investments. Other areas (Africa, Middle East and South America) receive 22 percent, including investments registered in Bermuda and other financial "safe-heavens".

Figure 2.18 Accumulated Inflow: Approved Outward Investment since 1991



*Note: The diagram shows the accumulated outflow of officially approved Taiwanese investments. *) Investments made in mainland China covers investments officially registered as "Approved indirect mainland investments".*

Source: Investment Commission, Ministry of Economic Affairs, Yearly Report 2007.

Some major Taiwanese firms are already present in EU:

- Asus
- Acer
- Hon Hai Precision Industry
- BenQ
- Giant
- ITON

Some of these have assembly plants in Eastern Europe, and are thereby circumventing the import duties on certain high tariff products. According to sources in the Taiwanese IT-industry, many leading Taiwanese firms are changing their strategic focus towards the European market and away from the US market.

2.7. Major Economic Challenges

The most immediate challenge for Taiwan is how to implement and increase cross-strait economic integration, but this is fast underway. Mainland China already accounts for 25 percent of Taiwan's exports and 55 percent of its outbound investment. This will improve with the expected opening of direct cross-strait transportation links, passengers and cargos have up to now been forced to make transit in either Hong Kong or Macau. This has raised business costs and hurt development of vertical integration of production and just-in-time supply lines. New direct transportation links with mainland China is expected to facilitate the growth of the island as a centre for research and development, logistics, and financial services. Already a boost in consumer confidence, as a result of expectation to the improved cross-strait relationship, has boosted the Taiwanese economy.

Taiwan has been under an import ban on more than 2000 products from mainland China, and this ban is not expected to be lifted in the near future. The import ban has denied Taiwan consumers and producers' access to many of the low cost products from mainland China, and therefore, it raised the production costs and lowered the real wage of employees in Taiwan. However, the first official negotiations on this issue are already underway and are due to begin in June 2008.

Until recently, the authorities in Taipei have prohibited banks based there from setting up branches in mainland China; these banks have now been allowed to invest in banks in mainland China. The recent relaxation of a cap on investments by Taiwanese companies in mainland China from 40 percent to up to 60 percent of capital has led some large Taiwanese multinationals to re-list on the Taiwan stock exchange. Concrete steps toward cross-strait economic integration are also fast in the making, and this is expected to reduce the operating costs of firms located in Taiwan and facilitate their participation in regional and global production networks.

Longer term, industrial diversification is another challenge for Taiwan. The economy relies heavily on electronics, and furthermore, because of the great focus on the US market, the performance of the Taiwanese electronics industry hinges heavily on demand conditions in the US and on costs in the mainland China, where much electronics production has been relocated. With demand fading and production costs rising in mainland China and other lower-cost countries entering the industry, producers in Taiwan are being squeezed. The economy needs to diversify into high-end manufacturing and into services, and expand their market focus to other regions than the US. Given the relatively small scale of the economy, progress in upgrading industry and services is likely to require closer ties with other economies.

Chapter 3 Barriers to Trade and Investments – Taiwan and EU

In the previous chapter we argued that the EU-Taiwan trade relation was under-performing. More trade and more investment could take place. In this chapter, we provide an overview of the current trade barriers between the EU and Taiwan that is part of the explanation of the "missing trade" and "missing investment". Our analysis covers the traditional trade barriers such as tariff and custom procedures, and also barriers known as WTO-plus barriers, namely non-tariff barriers, barriers to service trade and FDI restrictions.

Removing the formal barriers to trade and investment will have an effect in itself. A removal of barriers like tariffs and other bureaucratic restrictions may also remove some of the mental barriers blocking the vitalisation of the EU-Taiwan trade relation, and thereby remove some of the (mis)perceptions in terms of uncertainty that is the underlying cause for the missing trade and investment.

First, it must be recognised that both the European economy and the Taiwanese economy are very open economies to foreign trade and investment. Europe is, and has been, one of the global proponents of free trade, and Taiwan is one of the most open economies in Asia.

Therefore, if the challenges facing EU firms abroad in terms of the non-tariff barriers and regulatory issues are to be solved, the EU-Taiwan trade relation holds a promising potential of being solvable, and could perhaps become a lead example of European-Asian regulatory convergence. Successfully implemented it could be copied in future negotiations.

The fact that tariffs are low should be seen as an opportunity to do more in terms of addressing WTO-plus issues, rather than a hindrance (or a bad excuse) for not addressing the issues that really matter for European business, growth and job creation.

3.1. Taiwan's Ambitious WTO Commitments

Taiwan's WTO accession in 2002 has secured vastly improved access for EU firms to Taiwan's market. Import tariffs and other non-tariff restrictions have been sharply and permanently reduced. And investments by foreign companies now take place in a more attractive, and more predictable, business environment.

Taiwan's trade regime has become significantly more liberal than many existing WTO Members of a comparable level of development. In many areas Taiwan has agreed to concessions going substantially beyond standard WTO commitments. At the full phase-in, the tariff average is low, quotas are phased out, and service providers in all sectors benefit from improved market access conditions. Furthermore, protection for intellectual property rights is mostly guaranteed by law.
Fully phased-in, Taiwan's tariff regime will constitute an extremely substantial market-opening package and overall Taiwan will have one the most liberal trade regimes in the world. Taiwan committed itself to bringing its weighted average tariff on industrial goods down to 4.81%. Taiwan is already participating in the ITA and has actively participated in the negotiations on ITA II.

More than two thirds of tariff reductions on industrial products were to be completed on accession. Taiwan's agricultural offer provided for the opening of sensitive markets such as pork and poultry. In addition, Taiwan has agreed on offering tariff quotas on apples and citrus fruit ahead of accession.

3.2. Current Trade Policy Concerns

Even if the EU and Taiwan maintain good trade relations, and that WTO accession delivered significant steps to open trade with Taiwan, both parties recognise that there is still room for improvement. Of particular concern for the EU are Taiwan's lack of accession to the Government Procurement Agreement and the enforcement of intellectual property rights.

Taiwan joining the GPA

On government procurement, Taiwan agreed to join the GPA upon WTO accession; however, six years later this is still pending. This is an issue of concern to the EU, and it has real implications for EU firms for whom the GPA will improve their opportunities for placing successful bids for public procurement in Taiwan.

Taiwan has an ambitious investment plan for procurement and public works including a number of railways (for example the Kaoshiung light rail train estimated at €160 million) and urban transport (for example a new metro line in Taipei, the so-called Taipei circle line, €700 million in two phases). Other major projects are in electricity (e.g. a new generator at Chin Shan 2 estimated at €39 million and a new baggage handling system in the Taipei airport estimated at €45 million). Just the 15 largest projects add up to around €2.5 billion (not counting the public works). Estimates of the entire public procurement market are at US$25 billion a year. Overall, the Taiwanese government plans to spend nearly €85 billion on 12 construction projects in the coming years.

The value of having Taiwan joining the GPA will of course depend on the coverage that will be granted by Taiwan and the extent of offsets that are installed. However, improvement in the current selection criteria for public contracts could yield advantages to European firms. Currently, little importance is attached to the project risk element and much importance is attached to the price element. The competitive edge for EU suppliers is their ability to reduce risk in very large and complex projects, and not necessarily at the lowest price. However a proper assessment of the cost of risk would tip the balance to the advantage of EU suppliers.

European bidders are currently put at a disadvantage primarily vis-à-vis Japanese and other suppliers because of the local content requirements (30-40%) and the imbalance in liability requirements whereby local suppliers have less strict liability requirements than foreign suppliers. For historic reasons (Taiwan was in fact Japanese until 1945) Japanese firms have strong ties and ownerships of small local suppliers – a business model not viable for EU suppliers. Local suppliers are almost 100 percent focused on the public works segment of the procurement market.

European suppliers of large public infrastructure projects would improve their competitiveness if Taiwan applied procurement terms and conditions that follows international standards (such as the "golden rule" in risk sharing instead of the present practice of unlimited liabilities).

IPR issues - Compulsory licensing
A key part of the EU's Global Europe strategy focus on the effective protection of European intellectual property rights, which are vital for European competitiveness in a global economy.

While EU-Taiwan trade relations are generally good, the IPR issue regarding compulsory licensing of certain patents for recordable compact disc (CD-R) technology has raised some questions about the reliability of IPR protection in Taiwan.

A European Commission report published in January 2008 concluded that the Patent Law of Taiwan and certain decisions made under it are inconsistent with WTO rules on intellectual property.[15]

The contested decisions have now been cancelled, and amendments to the patent law are currently being proposed. These positive steps demonstrate Taiwan's willingness to resolve this issue.

Resolving these pre-existing concerns can be seen as *sine-qua-non* preconditions before the EU would consider discussions of further trade enhancement measures with Taiwan, and here the signing of the GPA would be the major issue.

3.3. Barriers Facing EU Firms in Taiwan

The ECCT position paper[16] lists 143 issues for EU business in Taiwan that remain unsolved. The list is a summary of work carried out in 28 industry committees representing some 650 members, and comprises a careful assessment of the business related issues facing European firms in Taiwan. The list of issues forms the basis for an intensive dialogue with the Taiwanese government.

---

[15] More precisely, it is alleged that these measures are inconsistent with Articles 28 and 31 of the TRIPs Agreement, according to European Commission services.
http://trade.ec.europa.eu/doclib/docs/2008/january/tradoc_137634.pdf

[16] The European Chamber of Commerce in Taipei (ECCT 2007-2008 Position Paper. "Time to Act: Roadmap to renewed prosperity". The European Chamber of Commerce Taipei publishes a series of Position Papers annually. These papers address the concerns of the chamber's member companies with regards to the business environment in Taiwan and provide practical recommendations to the Taiwan government for solving specific issues. They also serve to keep the European Commission, European national governments and European companies abroad informed about Taiwan's business environment. The process of compiling and writing the papers is coordinated by committee chairs in conjunction with ECCT staff after extensive consultation with interested members. The position papers are presented to the Council for Economic Planning and Development of the Executive Yuan and to the relevant government ministries and the European Commission in November each year.
http://www.ecct.com.tw/index.php?option=com_content&task=view&id=28&Itemid=48

The vast majority of issues relates to non-tariff barriers in manufacturing (53 of the 143 issues) and to barriers for service firms either operating in Taiwan or trading services with clients in Taiwan across the border (51 of 143 issues). Customs procedures and other items under the heading trade facilitation take third place measured by the number of issues (13 of 143 issues). The remaining issues cover barriers related to investment, to non-tariff barriers in the agriculture and food sector. Tariffs are generally not addressed in the position paper. Ten issues are non-trade related issues, cf. figure 3.1.

It is of course difficult to assess the precise importance of these issues in relation to one another. The simple count of the number of issues is, therefore, only an indication of where there are most concerns. However, solving one very big problem may be just as valuable as solving numerous smaller problems. Therefore, the priority as to the most important issues must be done on a case by case basis.

Figure 3.1 Significant Barriers: NTBs in Manufacturing and Barriers in Services

Type of barrier	No of issues
Non-tariff barriers on non-agriculture manufacturing goods	53
Barriers to trade in service	51
Trade facilitation (customs procedures etc)	13
General non-trade issues	10
Barriers to foreign direct investment	9
Non-tariff barriers on agriculture and food products	6
Tariffs on non-agriculture manufacturing goods	1
Tariffs on agriculture and food products	0
Total number of issues	**143**

Note: The table counts the number of issues reported. No assessment of their individual imports has been made.
Source: ECCT Position Paper 2007-2008 "Road Map to Renewed Prosperity".

Of the 133 trade related issues, 35 can be categorised as cross-cutting issues that are of relevance to many sectors, e.g. issues related to IPR regulation and enforcement, or issues related to general product certification procedures. The remaining 98 issues are sector specific. Chief among the concerns over non-tariff issues is those in the automobile sector, with 14 non-tariff issues of major concern and two sector specific customs border issues pending. The beverage and alcohol sector comes second with five non-tariff issues of major concern and two sector specific customs border issues pending. Each of the issues is described in detail in the position paper. Box 3.1 provides some examples.

In the service sectors, the retail and distribution sector tops the list in terms of the number of issues, with 20 issues in total, of which three are related to customs procedures and to sanitary and phyto-sanitary standards for the import of food products. The financial services industry is another sector where European firms are facing many serious challenges and the yearly count of pending issues is 14, and 17 if insurances are included. Telecom and transport are also sectors were the close industry dialogue has revealed a number of issues hampering the growth of EU firms due to special regulations and requirements.

Figure 3.2 Number of Important Issues Encountered by EU Firms in Taiwan

	Sector	Non-tariffs barriers on farm and food products	Non-tariff barriers on manufacturing goods	Barriers to trade in service	Trade facilitation (customs procedures etc)	Total
Manufacturing sectors:						
1	Automotive	-	14	-	2	**16**
2	Beverage Alcohol	-	5	-	2	**7**
3	Agro-chemical	2	3	-	-	**5**
4	Luxury Goods	-	4	-	-	**4**
5	Machinery and Equipment	-	3	-	1	**4**
6	Pharmaceuticals	-	3	-	-	**3**
Service sectors:						
7	Retail and distribution	3	-	14	3	**20**
8	Financial services	-	-	14	-	**14**
9	Telecommunications	-	-	9	-	**9**
10	Transport services	-	-	6	3	**9**
11	Other services	-	-	4	-	**4**
12	Insurance	-	-	3	-	**3**
	TOTAL	**5**	**32**	**50**	**11**	**98**

Note: The table shows a simple count of the issues identified.
Source: ECCT Position Paper 2007-2008 "Road Map to Renewed Prosperity".

Box 3.1 Unresolved Issues from the 2006-2007 Position Papers

Financial services

Asset Management

- **Offshore Funds**: Relax track record limitations on offshore funds; Follow international practice for derivatives;
- **Onshore funds**: Remove restrictions on appointments and qualifications of fund managers; Allow outsourcing of services; Improve the fund approval process; Remove limitations on fund size
- China Shares: Further liberalize China Share investment restrictions for onshore and offshore funds.
- Allow individualised pension plans.

Banking

- The industry continues to be over-regulated
- Systematic customer dispute resolution
- Elimination of reactive regulatory process management
- Streamlining product approvals
- Review and removal of unnecessary organisational firewalls

Insurance

- Pension reform implementation
- Tax loss Carry Forward period is too short in Taiwan and needs to be extended

Automotive

- Accreditation of EU test laboratories.
- Smoke test and emission standards for diesel engine vehicles.
- Parts Marking Requirement.
- Safety Type Approval: Grace period for the existing models
- Vehicle categorization
- The emission standard, testing and certification of vehicles
- Implementing the Evolution Factor for light duty diesel vehicles
- Customs duty on heavy commercial vehicle parts

Beverage Alcohol

- New inspection regulations for imported alcohol
- Counterfeiting remains a problem
- Geographic indications are not protected
- Proof of age for imported alcohol

Pharmaceutical

- Innovative drug reimbursement price lower than reference countries
- Drug license approval slower than in neighbouring countries and decrease in accessibility of Taiwanese patients to innovative drugs

Retail & distribution

- Regulations pertaining to product labelling and ingredients.
- Regulations on food names and advertising.
- Land availability for retail in Taiwan.
- Outdated and inconsistent regulations governing retail buildings.
- Inspection of imported food and agricultural products and relevant issues
- Cosmetic industry issues.
- Tobacco industry issues relating to product labelling and signage.

Telecommunications

- Base station site protests.
- Reasonable prices for local loop unbundling.
- Fair competition for mobile number portability.
- Wholesale prices for telecom services.
- Government support for 3G operators.
- Sensible management of emerging telecom services.
- Restrictions on telecom equipment imports and cross-certification agreements.
- Withholding tax hindering technology transfer.
- Support for the adoption of new technology for better network quality and subscriber experience

Source: ECCT Position Paper 2007-2008 "Road Map to Renewed Prosperity".

3.4. Overview of Barriers

We have identified service barriers, non-tariff barriers in manufacturing and barriers to FDI as the main inhibitors of EU –Taiwan trade.

On the tariff side, Taiwan has lower tariffs on agriculture than Korea, but higher tariffs in manufacturing. In particular the peaks on motor vehicles (currently at 17.5 percent) and on beverages (currently at 15.6 percent) are inhibitors of European concern. Taiwan is not facing high tariffs in Europe. Many of Taiwan's main products are in fact duty free already under the information technology agreement (ITA). However, some of Taiwan's main export products are facing significant protection in the EU, mainly bicycles and parts (of which Taiwan is a major global exporter) where EU's import protection is 15 percent.

Taiwan's service barriers are high, but slightly lower than Korea's. Our econometric estimates indicate that service barriers correspond to a tariff equivalent of 25-35 percent in Taiwan, i.e. that it is 25 to 35 percent more expensive for foreign service suppliers than for domestic service suppliers to deliver their services to Taiwan.

Table 3.1 Protection from Korea and Taiwan

	Korea's protection against EU	Taiwan's protection against EU	Taiwan's protection against EU at the final 2011 accession
Agriculture and processed foods	28,3	11,8	7,7
Other primary	5,3	6,4	6,1
Manufacturing	5,8	12,7	2,3
TOTAL GOODS	7,1	12,7	2,6
Service trade protection	35-45	25-35	25-35

Source: GTAP version 7and own estimates.

According to European business in Taiwan, non-tariffs issues are main concerns. The automobile industry can list a number of issues of so-called *Taiwan-only* requirements that make it more costly to supply the Taiwanese market (e.g. the lack of accreditation of EU test laboratories, burdensome safety approval and conformity of product approvals for individual parts and additional smoke tests for diesel cars). Other industries also list many issues. Beverages and tobacco are facing a high number of non-tariff barriers, pharmaceuticals are facing difficulties related to regulatory issues and procurement procedures in the health system. We have taken the conservative assumption of assessing the combined impact of non-tariff barriers and customs procedures to incur additional trade costs that corresponds to the lower-end estimate in recent applied analyses.

3.5. Tariffs Restrictions in Commodity Trade

EU exporters generally face higher tariffs (i.e. customs duties) in Taiwan than Taiwanese exports are facing in Europe. In 2006, 19 percent of EU's exports to Taiwan were subject to a tariff of 5 percent or higher. In comparison, only 10 percent of Taiwan's exports to the EU were subject to a tariff of 5 percent or higher. Furthermore, 5 percent of EU's exports to

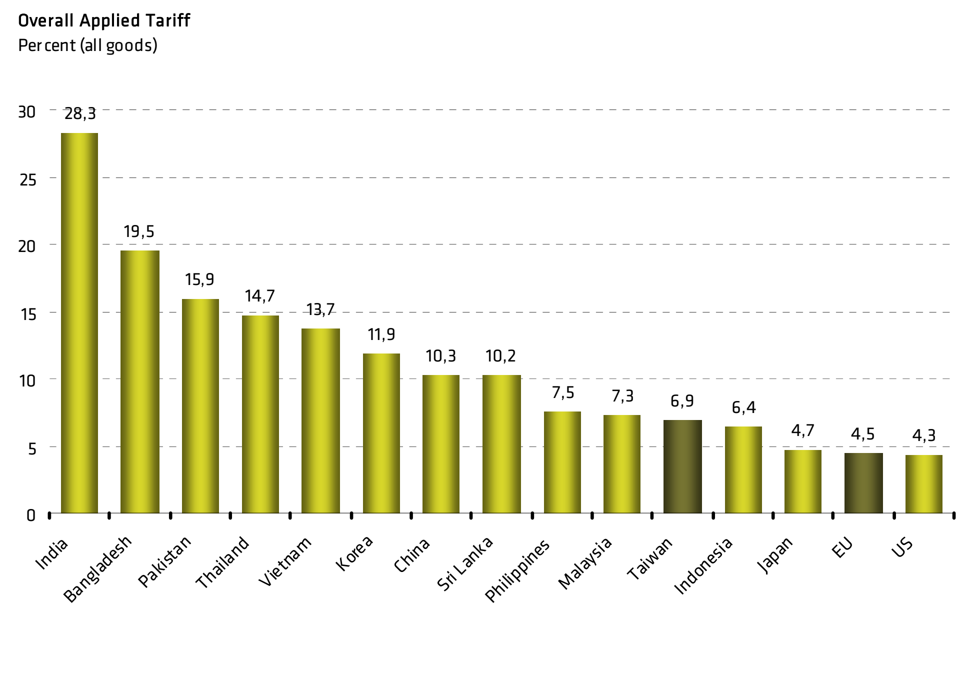
Taiwan were subject to a tariff of 20 percent or higher (mainly automobiles), whereas only 0.01 percent of Taiwan's exports to the EU were facing a tariff of 20 percent or higher. This clearly indicates that EU exporters are facing higher tariffs in Taiwan than vice versa.

Taiwan's accession to the WTO in 2002 has brought tariffs down by a significant amount, and fully-phased in the WTO commitments will make Taiwan one of the most open economies in Asia regarding tariffs, apart from special duty-free ports as Hong-Kong and Singapore.

Taiwan is relatively more open than other countries in Asia

Already from the outset in 2003/2004, Taiwan had lower applied tariffs than most other trading partners in Asia. In 2003/2004 Taiwan had one of the lowest unweighted applied tariffs in Asia with 6.9 percent. Only Indonesia and Japan had lower tariffs. Korea for example had at the time, applied tariffs averaging at 11.9 percent and India had the highest tariff protection of 28.3 percent, cf. figure 3.3. For comparison, EU and the US had applied tariff averages of 4.6 percent and 4.3 percent respectively. Taiwan's WTO commitments will decrease their tariffs significantly and as a result Taiwan will have one of the most liberal tariff schedules in Asia.

Figure 3.3 Historic Applied Tariffs in Main Asian Countries



Note: The figures are simple unweighted averages of the tariff rates in percent from the year of 2003 and 2004.
Source: Sally (2007) based on World Bank.

Box 3.2 Should Low Tariffs Disqualify Taiwan from WTO-plus Bilateral Negotiations?

One of the ideas presented in the "Global Europe" strategy is that the level of protection against EU export interests (tariffs and non-tariff barriers) should be one of key criteria for selecting new FTA partners. Market potential (economic size and growth) is the other.

It is important to note that the high trade protection criteria in "Global Europe" is based the combined protection from tariffs and non-tariff barriers. In practice, however, non-tariff barriers are more difficult to measure than tariffs, and therefore tariff protection tend to be in focus, when assessing trade protection.

Taiwan has lower tariffs than most of EU's trading partners in Asia, but has substantial non-tariff barriers. Should lower tariffs make Taiwan a less attractive partner to the EU? Certainly there is less tariff protection to be negotiated away. Is that good or bad? It depends. We need to assess the economic value to the European economy of negotiating tariff cuts in Taiwan. Removing smaller tariffs in some key sectors could have a large economic impact. The assessment of the potential benefits from a specific bilateral FTA should not be based alone on the overall average tariff level. It should rather be based on an assessment of the economic value for Europe from removing whatever tariffs that can realistically be negotiated away.

In that context it is relevant to look at both the volume of trade as well as the composition of that trade, and in particular to ask: What kind of trade are the current tariffs holding back? What kind of trade do we *not* see happening today because of trade protection? And further - what is the value creation to Europe from unleashing that trade potential?

Take an example: Imagine that Europe is only exporting two products to Asia. One is a standard commodity (think grains) another is a final consumer good (think cars). The key indicator should be how removal of trade barriers adds to European value-added, growth and jobs. Here reducing the tariff on the advanced product (cars), albeit small, might have a higher economic impact, than removing a high tariff on the commodity (grains). More European growth and more jobs could result from removing low tariffs on a high-valued added trade flow than removing high tariffs on a low value added (i.e. commodity-like) trade flow.

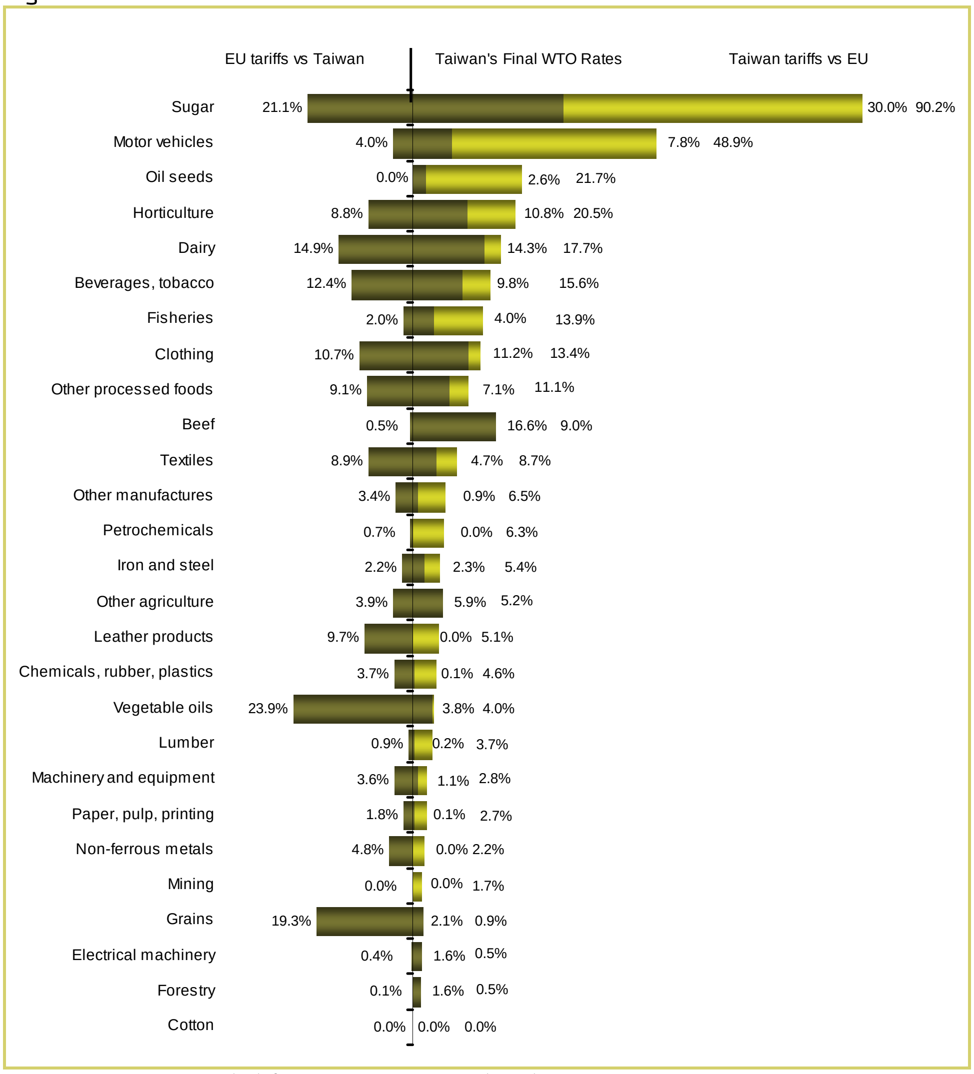
In our view, trade enhancement measures with Taiwan should not be dismissed on grounds that their current tariffs are lower than in other Asian countries. Taking the combined effect of tariffs and non-tariff barriers into account, there are enough barriers to provide for an economic rationale for reduction of these barriers.

Source: authors own view.

Tariff reductions as result of full WTO accession

As mentioned, Taiwan's WTO accession has significantly reduced Taiwan's tariffs. However, tariffs are still a major concern for many EU manufactures. One of the highest tariffs is on motor vehicles, and even after the latest reduction in 2008, European car exporters are facing a tariff of 17.5%. Another area is processed food, where tariffs on dairy, beef and other processed foods remain high (between 10 to 15 percent). Taiwan's export to Europe is generally facing low tariffs. For the tariff rates applied to goods entering the European Union, the main protected sectors are in agriculture. These are sugar, dairy, vegetable oils and grains. Other manufacturing sectors are relatively open in the European Union, the left hand side in figure 3.4.

Figure 3.4 Trade Protection for Goods



Note: EU protection on the left. Taiwan protection on the right
Source: GTAP version 7, projected to 2007

Many of the most traded products are duty-free. As mentioned, Taiwan's export to Europe is very concentrated in a few key products. Of the more than 5,000 product categories traded (HS 6-digit), the top-25 products account for more than half (54 percent) of Taiwan's export to the EU. Of these top-25 products 14 products are duty-free (zero tariffs mostly due to the information technology agreement (ITA)[17] providing world wide free trade in it-products and ten of the remaining 11 most traded products face a maximum tariff of 4.7 percent. There are however some much trade products facing high tariffs. Exports of bicycles (which the sixth largest 6-digit export item from Taiwan to the EU) are facing an import tariff of 15 percent into Europe.

EU import duties on certain consumer and office electronics is another area of concern for Taiwanese exporters. As the borderlines between television and internet are being challenged by users streaming online video and accessing real-time television through the internet, cutting edge electronics producers are adapting and incorporating new features in their products to meet the demand of these consumers. This is particularly seen on flat screen monitors, which are now equipped with TV-sockets.

This tendency challenge the classification of products covered by the ITA, and whether a product is covered by the ITA – and thereby duty free - is an area of concern for Taiwan's exports to the European Union. The EU has been classifying new products as they come on to the market with tariffs averaging 10 per cent. One example is computer screens fitted with a socket to take a TV cable – now standard – which are classed as video monitors and attract 14 percent duty. The US and Japan have launched a formal WTO complaint on this matter against the European Union[18], and Taiwan has decided to join the complaint.

The 14 percent duties on LCD panels suitable for TV/video use face import duties is the main reason why many Taiwanese manufacturers of these panels now assemble them in Eastern Europe. These tariffs are barriers that Taiwan would want to see removed in a trade enhancement agreement with the European Union.

3.6. Barriers to Trade in Services

At the time of accession, the European Commission evaluated Taiwan's offer on services as ranking "amongst the 10 best sets of commitments in the WTO". According to the assessment at the time, Taiwan's services schedule "comprehensively covers a wide range of sectors including financial, telecommunication, professional, advertising, computer, construction and distribution services".

The expectations were that Taiwan would remove foreign equity restrictions in all services sectors except in specific sectors such as telecoms, where European and other foreign companies will nonetheless be able to hold controlling stakes. In financial services, Taiwan was expected to substantially improve market access and treatment guaranteed to EU operators. In

[17] The WTO Ministerial Declaration on Trade in Information Technology Products (ITA) was concluded by 29 participants at the Singapore Ministerial Conference in December 1996. The number of participants has grown to 70, representing about 97 percent of world trade in information technology products. The ITA provides for participants to completely eliminate duties on IT products covered by the Agreement.
[18] Financial Times, 29 May 2008.

maritime services, Taiwan should allow foreign shipping companies to set up wholly-owned subsidiaries arranging entering/leaving harbours for their own ships, solicit goods and/or passengers and operate their own sea-container terminals. Foreign-owned companies will also be able to provide maritime agency, freight forwarding, container station and depot services.

Using advanced econometric procedures the barriers to trade in services between the two partners are estimated to be quite significant. The barriers are reported below, cf. table 3.2

Table 3.2 Estimated Barriers to Trade in Services

Country	Estimated Tariff Equivalent
Taiwan	37.31
Korea	46.41
European Union	17.26

Note: The barriers are translated to equivalent tariff levels.
Source: Own estimates based gravity model by Francois et al (2008).

3.7. Non-Tariff Barriers and Investment Restrictions

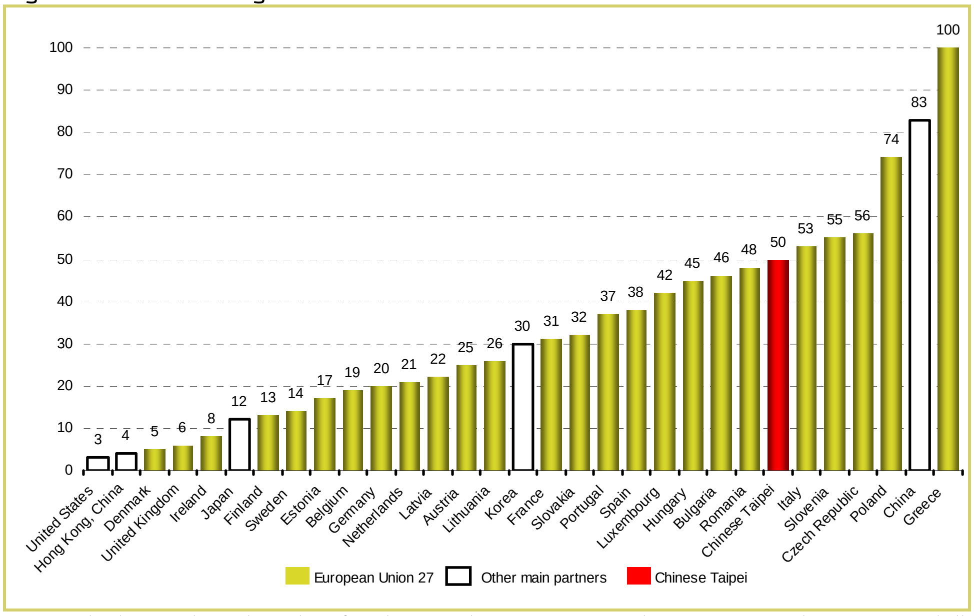
The World Bank publishes a ranking of the ease of doing business. The ranking provides objective measures of business regulations and their enforcement across 178 countries and selected cities. The ranking expresses the business climate in countries, and thus how good the possibilities for investments are, measured using indicators on issues such as *Starting a Business, Dealing with Licenses*, *Employing Workers*, etc.

Taiwan ranks as number 50, in top third of all countries in the survey, but compared to their main trading partners only the business environment in China is worse. In spite of Taiwan being an advanced economy, there are still significant problems for doing business, especially when starting a business, dealing with licences and employing workers. This should, therefore be important part of the trade enhancement measures, so that European businesses will face fewer barriers for permanent and lasting direct investments in Taiwan.

Compared to the European trading partners, a few member states of the European Union rank worse, but the majority of member states rank better than Taiwan, and hence Taiwanese investors generally face fewer barriers when entering the European markets, cf. figure 3.5.[19]

[19] The World Bank does not publish an aggregate rank of the European Union.

Figure 3.5 Ease of doing Business in EU and Taiwan 2007



Note: The diagram shows the ranking from best (number 1) to worst (number 178). Main trading partners and all European Union countries are shown.

Source: World Bank, Ease of Doing Business Index, 2007.

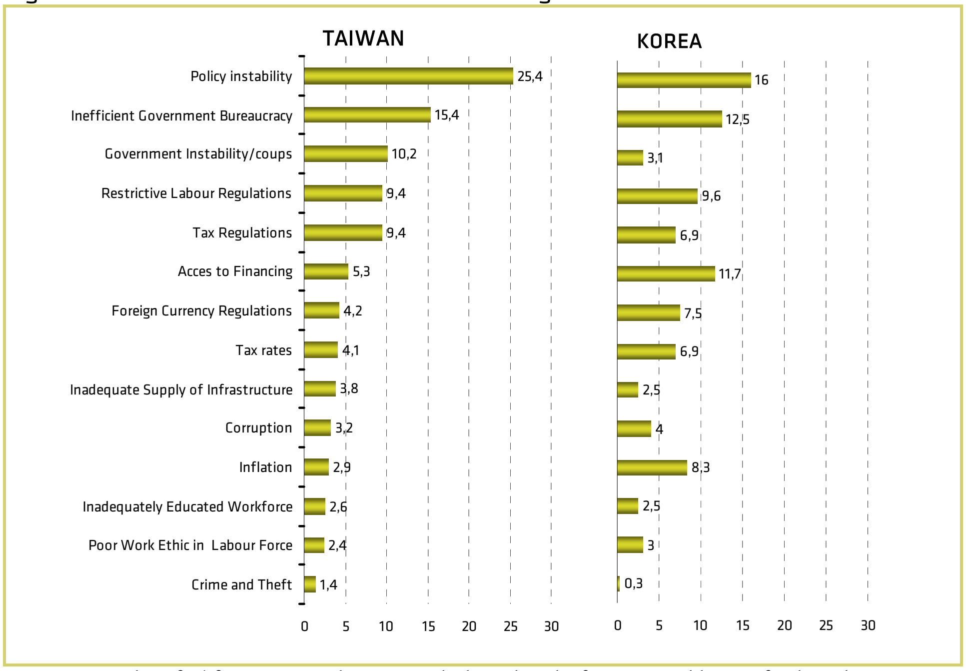
The somewhat unfavourable business climate leaves some room for further reforms to better the climate, and Taiwan is also targeting these areas for reform, especially since the barriers to investments are related to administrative procedures and not to fundamental changes of law, i.e. getting approval and licences.

3.8. POLITICAL UNCERTAINTY AS A BARRIER TO TRADE

Every year, the World Economic Forum conducts a large, global survey in which several thousand business leaders across the world are asked to rank the five problems of most concern from a list of 14 potentially problematic areas.Regarding Taiwan, business leaders viewed factors related to political instability as the most problematic and assigned it a weighted percentage of 25.4. Concerns in second and third places are also related to the overall political uncertainty, namely government bureaucracy (15.4%) and government instability (10.2%). Compared to other Asian countries[20], only Thailand and Korea seem to suffer from the same perception, but by far to the same extent, as only between 13 and 17 percent of the respondents see political uncertainty as the factor of most concern. In Korea for example, concerns over lack of financing come before concerns of political instability, cf. figure 3.6.

[20] Republic of Korea, Japan, China, Malaysia, Thailand and India

Figure 3.6 The Most Problematic Factors for Doing Business in Taiwan



Note: From a list of 14 factors, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

Source: World Economic Forum, "The Global Competitiveness Report 2007-2008" http://www.gcr.weforum.org/ accessed May 2008

From the above, and from in-depth interviews with European business leaders in Taiwan, we conclude that political uncertainty, and in particular Taiwan's relationship with mainland China, is perceived as a major problematic factor when business leaders assess opportunities in Taiwan. Undoubtedly, much of this concern is related to the cross-straits economic restrictions, and it is a major factor in explaining the mystery of "missing trade" and "missing investment" between Europe and Taiwan.

Chapter 4 EFFECTS OF TRADE ENHANCING MEASURES

What would happen to the European economy and to the Taiwanese economy, if Europe and Taiwan mutually agreed to remove a number of the trade barriers described in the previous chapter through what we will call Trade Enhancement Measures (TEM)?

In this chapter we present the results from model simulations of three scenarios each containing a combination of trade enhancement measures, and we discuss the main findings of the analysis. We apply a similar model as applied to our evaluation of the economic impacts of an EU-Korea FTA.

The results clearly show that trade enhancement measures between Taiwan and the European Union would yield positive economic gains for both countries, both in terms of growth and in terms of increased economic activity and thereby creating jobs.

For the European Union the effects are tied to the removal of barriers to trade in services, and removal of non-tariff barriers in manufacturing. For Taiwan, lower tariffs will ease access to the European market for especially electronics, but also removal of barriers to service trade is an important element of gains to Taiwan.

4.1. OVERALL WELFARE GAINS

The simulation shows that introducing the full set of trade enhancing measures will yield gains to Taiwan that are equivalent to a real income gain of €3.78 billion measured in 2001, or 1.2 percent of GDP, cf. table 4.1. Equivalently, the gain for the European Union is €1.59 billion or about 0.02 percent of GDP.[21]

Table 4.1 Gains in Real Income

Region	Light TEM	Partial TEM	Full TEM
	---------------- Income gains in billion 2001 € ------------		
Taiwan	-	€ 1.59 bn	€ 3.78 bn
European Union	€ 0.18 bn	€ 1.02 bn	€ 1.95 bn
	------------- Income gains percentage 2001 change ---------		
Taiwan, percent of GDP	-	0.50%	1.19%
European Union, percent of GDP	-	0.01%	0.02%

Note: Scenarios are defined in the following section. The model reports values in 2001 prices, thus all results are given as 2001 €.
Source: Own simulations

The large income gain for Taiwan is rooted in better access to the European markets for consumer electronics and electrical parts. For the European Union, the removal of trade barriers to services drives the overall income gain. The following sections go into more detail on these issues.

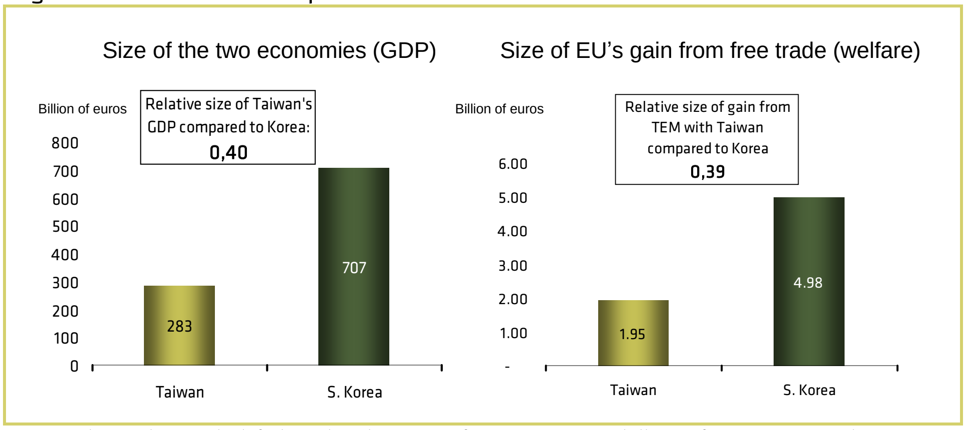
[21] The reported income gains are in translated from the welfare gains from the simulations. The gains experienced by the consumers are translated as the change in real income the consumers would need in order to achieve the same level of welfare as under the agreement. In other words, the gains to Taiwan under the full TEM are equivalent to an income increase of €3.78 billion if the TEM was not introduced.

The size of the gain for the European Union is larger than expected, given the relative size of the Taiwanese economy (Taiwan's GDP corresponds to just two percent of the EU-27 GDP).

European gains compared with Korea Agreement

Prior to the negotiations of a Free Trade Agreement between the European Union and Korea, an analysis of potential economic impacts was carried out. The analysis showed positive income gains to both Europe and Korea that are higher than our estimates from EU-Taiwan measures. However, comparing the gains with the relative sizes of the two Asian economies of Korea and Taiwan shows that, EU-Taiwan trade enhancement measures are at least as efficient in relative terms. The Taiwanese economy is 40 percent the size of the Korean economy, cf. figure 4.2, left panel. The gains to the European economy from trade enhancement measures with Taiwan are 39 percent of the gains from an identical package of measures with Korea, cf. figure 4.2, right panel.

Figure 4.1 Gains in the European Union from TEM with Taiwan



Note: The two bars to the left show the relative size of Taiwan's GDP in billions of 2001 € compared to Korea. The two bars to the right show the relative size of gain in billions of Euro from TEM with Taiwan compared to Korea.

Source: IMF, World Economic Outlook and model simulations.

In effect, the gains to Europe from the removal of the large barriers to trade between Korea and Europe are matched, even though the tariff protection between Taiwan and Europe is lower. Trade between Taiwan and the EU are relatively larger, thus a large tariff removal on a small trade flow in the EU-Korea FTA case is matched by a small tariff removal on a large trade flow in the EU-Taiwan case. However, it remains that there is still a mystery of the Europe-Taiwan relation being under-traded.

This result reveals that it is questionable to only focus on opening of trade with the most closed partners, because this in fact punishes the partners that are already open. The partner sharing Europe's vision of free trade could yield just as large gains, even though Taiwan is more open in the first place.

Taiwan and the EU-Korea FTA

Earlier simulations have revealed that the close trade relationship between Korea and Taiwan leads to both positive and negative impacts from individual agreements with Europe. Thus, the FTA between Europe and Korea, in addition to the expected negative impacts of trade diversion, also yield positive effects for Taiwan. This phenomenon stems from the fact that Korea and Taiwan are at the same time close competitors *as well* as close trading partners.

Taiwan will experience negative impacts to key sectors (like LCD-TFT) from the opening of trade between Europe and Taiwan's major competitor in this field. Trade will be diverted away from Taiwan and Korean producers will replace Taiwanese producers as suppliers to Europe.

There are, however, also positive spillovers to Taiwan's economy from the expansion of Korea's trade with Europe. Taiwan is exporting a significant amount of goods to Korea, (US$ 8 billion in 2007 of which US$ 5 billion are electronics). So when demand increases in Korea, demand for inputs and final goods from Taiwan also increases.

On the balance, Taiwan might not be as negatively affected by the EU-Korea FTA as expected only seeing the negative trade diversion effect; however this does not preclude a further opening of trade to Europe in order to eliminate the negative effects of trade diversion.

4.2. Three Scenarios Analysed

The core of our analysis is structured around three scenarios. Each scenario comprises a package of trade enhancement measures, from a less ambitious "light agreement" to a more ambitious package comprising the full spectrum of so-called WTO-plus instruments. In the most ambitious scenario we have assumed full liberalization for agriculture, manufactured goods and services trade, as well as reduction of non-tariff barriers in both goods and services. We have also included the effects of Taiwan signing the government procurement agreement (GPA), since this is seen as precondition for the EU to negotiate with Taiwan, and thus part of the package. The full scenario also includes ambitious trade facilitation measures aiming to reduce less transparent trade barriers, such as customs procedures, product standards and conformance certifications, licensing requirements, and related administrative sources of trading costs.

The three scenarios capture the scope from minimum trade enhancing measures, to a maximum trade enhancement in the form of a fully fledged free trade agreement removing virtually all tariffs and service barriers, and adding significant improvements on trade facilitation:

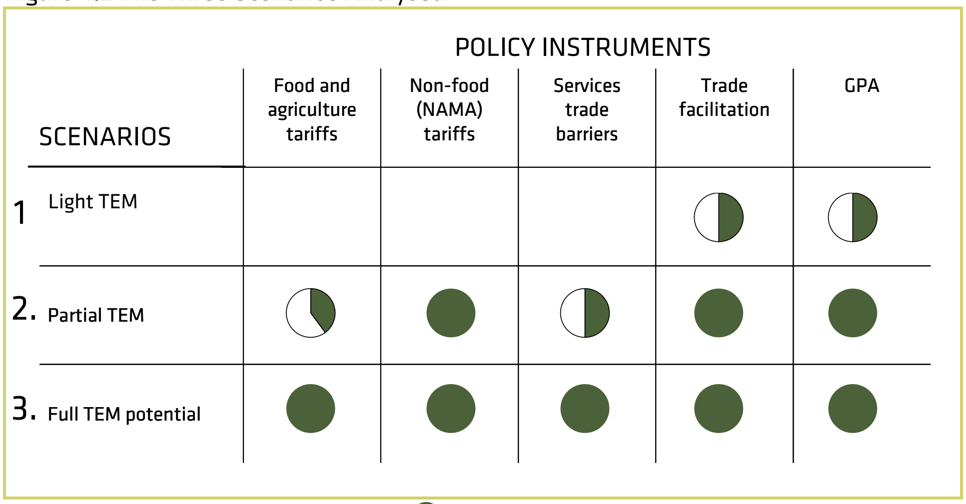
- *Scenario 1*: Light Trade Enhancement Measures (Light TEM)
- *Scenario 2*: Partial Trade Enhancement Measures (Partial TEM)
- *Scenario 3*: Full Trade Enhancement Measures (Full TEM)

The first scenario (light TEM) can be seen as a minimum impact of future EU-Taiwan trade enhancing measures. This "light" agreement include the economic impact of mutual MFN-treatment in agriculture and manufacturing goods, some improvement on government procurement (i.e. half of the effect of GPA signatory), and some progress on trade facilitation (i.e. half of the effect of full TEM trade facilitation).

The next scenario (partial TEM) illustrates the effects from going into more serious negotiations to reduce 40 percent of tariffs on agriculture and all tariffs on manufacturing products. The scenario also includes a removal of 50 percent of the estimated barriers in services.

Finally, the last scenario (full TEM) indicates a conservative estimate of the upper bound for the trade enhancing measures, namely a fully fledged FTA where barriers in all areas are removed. The details of the scenarios are summarized in figure 4.2 below.

Figure 4.2 The Three Scenarios Analysed



Note: means half a reduction of the barrier. means full reduction of the barrier
Source: Own assumptions

The **full TEM scenario** implies full bilateral tariff reductions for merchandise goods, full liberalization of trade in services and trade facilitation measures corresponding to 1 percent of cost of trade. From a policy point of view, this scenario can be seen as quite radical in its assumptions. Nonetheless, it is very useful in providing an upper benchmark for the effect of potential measures to liberalize trade.

The **partial TEM scenario** applies more realistic assumptions than the Full TEM scenario described above. With regards to non-food tariffs (i.e. manufacturing goods) the assumption is the same as in the full TEM, namely full bilateral tariff (= 0 tariff?) reduction. With regards to the often sensitive agriculture and food sector, a 40 percent reduction in tariffs is assumed to take place[22]. Trade facilitation is assumed to be similar as in the full FTA. The partial scenario differs with respect to assumptions regarding liberalization in the service sector. It assumes a 50 percent reduction of the estimated economic importance of the barriers to trade in services.

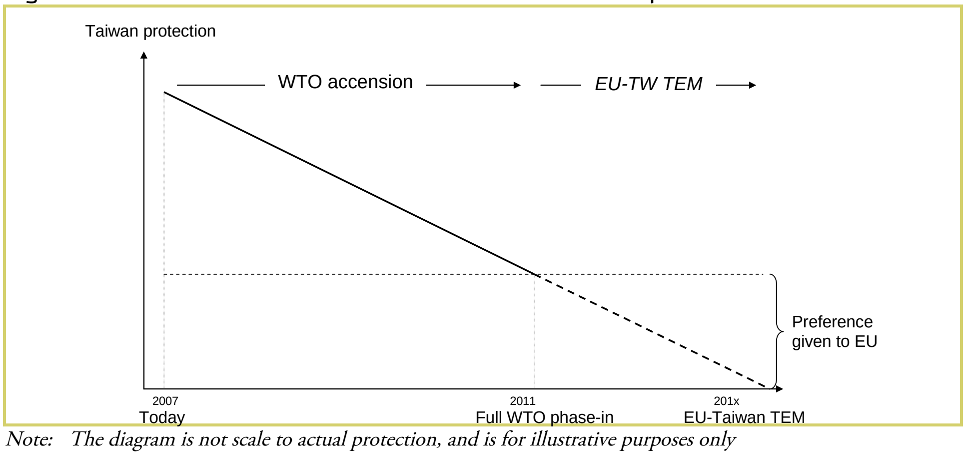
Before policy experiments we include the following in the baseline:

- Taiwan's accession to the WTO (including planned tariff reductions)
- Korean-centered FTAs (EU, US, Canada, China, India, Japan, ASEAN and EFTA)
- A notional outcome of the Doha Round[23]
- China's accession to the WTO
- The reduction of EU quotas for imports of textiles and clothing (ATC phase-out)

In the scenarios we assume that the above points are included in the counter-factual scenario, and we evaluate the isolated effect of bilateral initiatives that remove EU-Taiwan trade barriers. Our simulations of the potential economic gains from bilateral measures between EU and Taiwan, have assumed that the Doha-round would be successfully implemented. Without a Doha-round, there will be a larger scope for bilateral economics gains, because there are more trade barriers to be negotiated away. Therefore, in this respect, our assessment of the potential is conservative, and without the Doha-round, the potential benefit from bilateral trade enhancement measures will increase beyond what is reported here.

The inclusion of the planned tariff reductions is illustrated in Figure 4.3.

Figure 4.3 We Model EU-Taiwan Trade Enhancement on Top of Full WTO Phase-in



Note: The diagram is not scale to actual protection, and is for illustrative purposes only

Thus the reported impacts of the trade agreements have taken into account the already planned liberalisation initiatives concerning world trade and significant partnerships important to both Taiwan and the European Union.

[22] Sectors with the highest tariff rates in agriculture and processed foods could account for less than 5% of both tariff lines and bilateral trade. If so these sensitive sectors can be excluded from a FTA, with the agreement still complying with WTO-rules, i.e. still covers 95% of tariff lines and bilateral trade.

[23] This means that the changes in world trade patterns from implementing the current Doha proposals are taken into account in the simulations.

4.3. Economic Impacts for the European Union

In the full TEM scenario, we predict the removal of service barriers to be the main driver of the economic gains. The five main sectors in terms of expansion of European exports are the following:

- *Business services* such as accounting, engineering and management consulting (+2.0%)
- *Tourism, health and other service* (+3.4%)
- *Trade services such as supermarkets, other retail stores and wholesale trading* (+3.1%)
- *Motor vehicles* (+0.4%)
- *Transport services such as maritime transport and express delivery* (+1.1%)

Output will increase in the same five sectors. Removal of service barriers is responsible for this large effect, but removal of tariffs and non-tariff barriers for motor vehicles and beverages is also predicted to yield a significant share of the economic gains to the European economy. Thus the trade enhancement measures will reinforce EU's shift from manufacturing production towards service and knowledge intensive economy. But the changed environment for Europe's manufacturing will mainly impact the inefficient EU producers negatively, but will also yield significant long-term opportunities for advanced manufacturing exporters.

The main drivers of EU gains

The removal of barriers to the Taiwanese markets will open for efficient European service sectors to offer their service at competitive prices, as well as the case for the automotive industry. The removal of tariffs and barriers changes relative prices between nations – inducing more trade in the cheaper products. European service sectors increase production and exports to Taiwan – thus drawing labour and capital from other sectors in the European economy. For instance, by removing the restriction imposed on foreign engineering consulting firms to appoint a Taiwan-licensed Professional Engineer (PE) as their company representative (unless they have been registered for more than five years and have a turnover of at least NT$2 billion). This would lower the market entry barrier for a large number of European engineering consulting firms.

Likewise, Taiwanese electronics will become cheaper in the EU, for the benefit of both European consumers and for sectors using electronics as input in their production.

In addition, there are the allocative effects of opening trade. Changes in output and production in both Europe and Taiwan spur reallocation of factors from inefficient sectors to more efficient sectors, thereby enabling consumers to access goods and services that are produced where it is most efficient, in this case it is services in Europe and electronics in Taiwan.

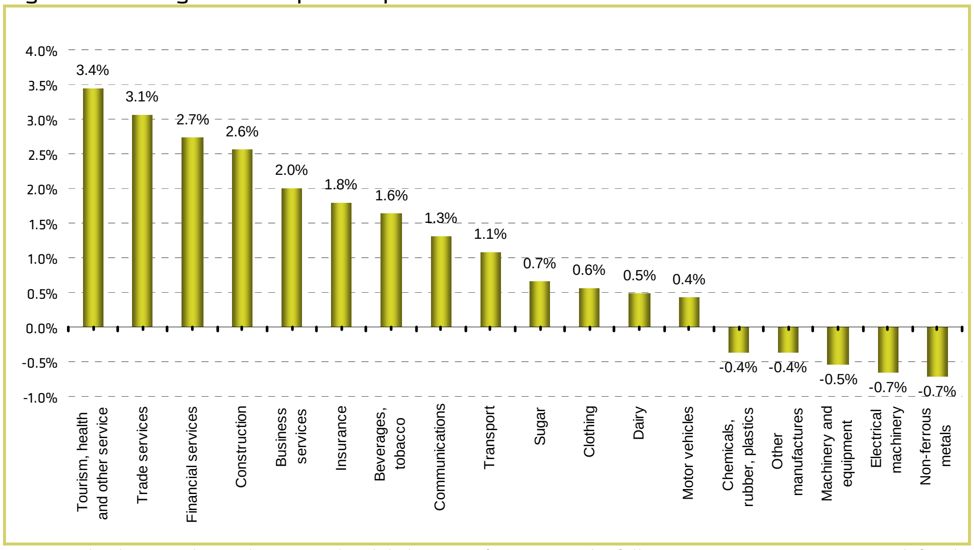
Effects for European Exporters

Looking at the predicted changes in the full TEM scenario for the European exporters, it is clear that both service sectors and manufacturing sectors will increase their exports if trade barriers with Taiwan are removed. The largest percentage changes in exports measured in values are expected for the services sectors. Exports of services increase by between 1.1 percent in the case of transport services, and 3.4 percent in the case of other services such as tourism, health care services, recreation etc, cf. figure 4.4.

However, it must be recalled that service trade is much smaller than goods trade between the two partners, as goods trade make up 88 percent of the traded value. Therefore, the smaller percentage changes in manufacturing exports, as for beverages (+1.6 percent), clothing (+0.6 percent), dairy (+0.5 percent) and not least motor vehicles (+0.4 percent) comprise much larger export changes measured in absolute terms.

All in all, European total exports are expected to increase by €9.9 billion above the current level in the full TEM scenario. In the less ambitious scenarios, EU exports increase between €0.5 billion and €6.2 billion (measured in 2001 prices.)

Figure 4.4 Changes in European Export Volume



Note: The diagram shows changes in the global exports from EU in the full TEM scenario (Scenario 3) as defined above. Sectors that are largely unaffected are not shown. Sectors sorted after highest impact.
Source: Own simulations

Some of the expansion in exports to Taiwan comes at the expense of a decrease of exports to other destinations. The assumed reductions of barriers will make Taiwan relatively more attractive as destination for European exports. Although this effect of trade diversion is limited, so the reported changes in total export volume is roughly equivalent to the changes in the bilateral trade relationship between Europe and Taiwan.

Sector Effects in the European Union

Decomposing the simulation reveals the effects of the different measures encompassed by an agreement. The single element of removing Taiwanese tariffs towards EU yields the largest output expansion for the European producers of

- *Beverages and tobacco* (+0.4 percent)

- *Clothing* (+0.2 percent)
- *Motor vehicles* (+0.4 percent)
- *Electronics & machinery* (+0.1 percent)

Note that these effects are the effect of the single element of tariffs reductions on goods beyond what was expected from the Doha round.

The electronics sector in Europe also expands, reflecting that electronics production in Europe benefits from access to the Taiwanese market, in spite of the very strong world dominance of Taiwanese electronics products. This result is also founded in the element of intra-industry trade present between the two partners. In fact, Taiwanese electronics producers will utilise more components from Europe in their production when tariffs are removed.

The expansion of motor vehicles and beverages sectors in Europe is a consequence of the relatively high protection these products enjoys in Taiwan at present. Therefore, the changes in prices on European products drive up demand and leads to expansion in Europe.

The removal of Taiwanese non-tariff barriers toward the European Union also yields an expansion in the motor vehicles sector (+0.04 percent).

For all the service sectors, the removal of barriers to trade in service in Taiwan all show significant effects, except for the communication sector. These sectors are:

- *Trade services (+0.07 percent)*
- *Transport services (+0.14 percent)*
- *Financial services (+0.11 percent)*
- *Insurance (+0.10 percent)*
- *Business services (+0.14 percent)*
- *Tourism, health and other services (+0.05 percent)*

The elements of trade facilitation, procurement rules, and removal of other tariffs have small to no effect on the European producers.

Implications for jobs and wages

The shift in production from manufacturing in Europe toward service industries is also reflected in changes in the wages of skilled and unskilled labour, where there is a marginal increase in the demand for skilled labour – reported as an increase in the relative wage of skilled labour of 0.02 percent. The marginal effect reflects the overall small impact on the European economy, however there is a measurable and positive impact on the labour market.

4.4. Economic Impacts for Taiwan

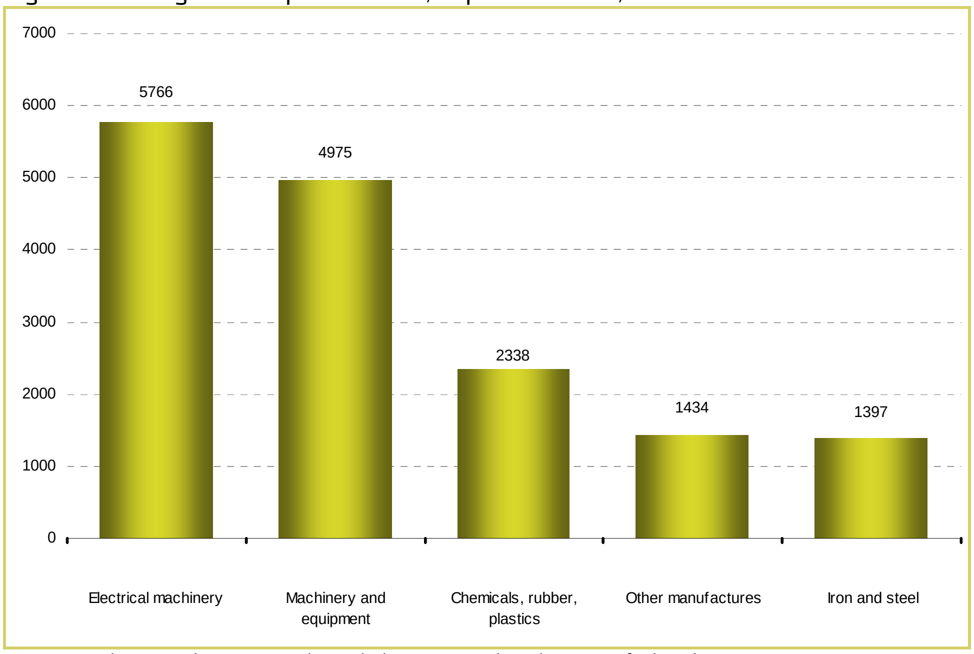
Taiwan can potentially increase welfare equivalent to an increase in income by €3.8 billion in a full TEM scenario with the European Union.

In the full TEM scenario, we predict the manufacturing sectors to be delivering most of the gains, especially electronics. Examining the changes in output reveals the main five sectors:

- *Non-ferrous metals* (+14.7 percent)
- *Machinery and equipment* (+13.2 percent)
- *Motor vehicles* (+10.9 percent)
- *Electrical machinery* (+9.5 percent)
- *Iron and steel* (+8.5 percent)
- *Other manufactures* (+6.6 percent)

These numbers are percentage changes, so the size of the sectors will influence how large the expansions are. Calculating the volume changes reveal that the electronics sector is the sector experiencing the largest in volume by far, cf. figure 4.5.

Figure 4.5 Changes in Output Volumes, Top Five Sectors, Taiwan



Note: Machinery and equipment also includes LCD panels and a range of other electronic equipment, a consequence of the GTAP sector mapping.
Source: Own simulations.

The strong position of the electronics industry of Taiwan is further increased as access to the European market is improved. And this is the case, even though the EU's protection is considered relatively small.

The services sectors in Taiwan contract somewhat as the mirror image of the European expansion. These include business services and other services. The demand for these services is covered by an increased import from the EU.

The shift in production structure is also mirrored in Taiwan. The expansion in the manufacturing sectors in electronics and machinery drives up wages, inducing labour to change sector. This effect, in turn, contracts the service sectors.

The removal of barriers to trade in services also has positive impact on output in manufacturing, for example in the electrical equipment sector. This stem from the fact that cheaper service inputs become available to the manufacturing production, and since about 10 percent of intermediate inputs in the electronic production are business services and other services, an improvement of service suppliers spillover to manufacturing sectors which experience a cost improvement as result.

Effects for Taiwan's exporters

Looking at the changes in trade pattern for Taiwan the exports will increase, mainly in five sectors manufacturing sectors:

- *Motor vehicles* (+29.9 percent)
- *Machinery and equipment* (+18.7 percent)
- *Non-ferrous metals* (+15.1 percent)
- *Vegetable oils* (+14.0 percent)
- *Iron and steel* (+11.4 percent)
- *Electrical machinery* (+11.2 percent)

4.5. Summary of Model Results

While Taiwan's tariffs are generally low, there are peaks for important EU products (e.g. cars), and there are substantial barriers to service trade.

A comprehensive trade enhancement agreement will remove de facto barriers, but it will also reduce perceived uncertainties. The first implies static welfare gains. The latter may imply strategic gains. Our model results quantify the static welfare gains.

Static welfare gains

- Removal of tariffs and NTBs will enhance EU's exports to Taiwan (especially in cars and processed food).
- Removal of service barriers will increase EU's service exports and foreign presence in Taiwan.
- Reductions of tariffs for Taiwan imports into EU to same level as Korean imports will reduce prices for EU consumers and widen their choice; this is especially strong in electronics.

Korea will not be negatively affected

- Our analysis appears to dismiss the concern that the value for Korea of the EU-Korea agreement will be watered down by EU-Taiwan trade enhancement measures. We do not foresee that Korea will be negatively, because when Taiwan expands its trade with the EU, it will also increase its imports from Korea. Taiwan and Korea are close trading partners, and there is a positive link between them. When one is booming, so is the other.

Chapter 5 LONG-TERM STRATEGIC GAINS

Europe's openness is vital in maintaining its leading role in the global economy. In order to keep the EU at the forefront of international competitiveness, the *Global Europe* strategy suggests that a dynamic approach must be taken that looks at the position of EU firms in a globalising economy.

This chapter deals with such effects in relation to Taiwan. We assess those additional effects that are not well captured by the modelling, but hold much potential in the relationship between Taiwan and the European Union.

The most important aspect of Europe's openness to trade is how it boosts productivity. According to the analysis behind the *Global Europe* strategy, openness to trade can boost productivity by providing greater opportunities to exploit economies of scale, by exposing the domestic economy to greater competitive pressures, by rewarding innovation and providing access to new technologies, and by increasing incentives for investment.

Trade enhancement with Taiwan could be expected to deliver results on most of these accounts, and therefore openness to trade with Taiwan would provide an upward lift to European productivity growth. Open trade with Taiwan can provide opportunities to *exploit economies of scale* for example by leveraging on EU investments made in mainland China when access to the Taiwanese market from the mainland is provided for by cross-strait economic integration. Open trade with Taiwan will expose the EU economy to *greater competitive pressure* from some of the world's most efficient producers in key European strongholds – for example in advanced machinery, where there are already strong links in terms of trade and in terms of investments. Open trade with Taiwan can provide *access to new technologies.* Taiwan is the global epicentre of high-tech products, and is investing heavily in R&D and research parks. Some of the new areas of research on environmental protection and nano-technology are on the agenda to further strengthen the innovation capacity. Open trade with Taiwan gives therefore gives *incentives for investment* for European firms.

Our argument behind the strategic gains from open trade with Taiwan is that there is an almost perfect match between the challenges that the *Global Europe* strategy aims to solve, and the opportunities that Taiwan represents. We, therefore, first present the challenge for European competitiveness as it is perceived in the preparation of the strategy, and then we summarise the current standing of Taiwan's competitiveness, and address the overlap between the two. The overlap is remarkably large.

5.1. TAIWAN AS A STEP TO IMPROVE EUROPE'S GLOBAL COMPETITIVENESS

We share the analysis of Europe's external dimension of competitiveness as it was presented prior to the launch of the strategy[24]. In following we summarise the key points.

Europe has two key assets for the future. One is the advanced and knowledge-intensive service industry. The other is Europe's manufacturing industry. While merits of the first are

[24] "Global Europe: Competing in the World - A Contribution to the EU's Growth and Jobs Strategy", Staff Working Paper from the European Commission, SEC (2006) 1230, 04/10/2006.

often mentioned, the second is sometimes overlooked. The EU manufacturing industry has in fact maintained its share of GDP in volume in the face of globalisation. Its output has increased by 40 percent over the last two decades. Despite rapid economic change and the emergence of a new range of competitors in particular China, Brazil and India, the EU's position on world markets remains almost unchanged, while the US and Japan have lost ground[25]. In the service sector, European service providers are known and recognised among the world leaders in telecommunication, distribution, finance, insurance, transport and environmental services.

Europe's advantage is in the "upmarket". Analysis shows that the good performance of Europe's manufacturing industry is mainly due to the ability of EU companies to sell products at premium price due to quality, branding and related services. These "upmarket" products now account for a third of world demand and represent half of European exports[26], not only in luxury consumer goods, but across the whole range of EU exports, including agricultural products, intermediary goods, machines and transport equipment.

The value chains are being "sliced-up". The changes in the global economic order we witness today are significant. To some, they are as significant for the world economy as the end of the Cold War[27]. Global economic integration is deepening, driven by growing trade and capital flows, deepening financial markets, falling travel and transportation costs, the revolution in information and communications technology and the movement of ideas and people. This results in a new international division of labour. The value chain is global. Tasks are spread around the globe according to where opportunities and costs are most favourable. As a consequence, international trade is no longer just about trading Airbus aeroplanes for T-shirts, but about trade in tasks and trading intermediates, products and services within the same value chain. European firms prosper because of their unique high quality products and the ability of European companies to anticipate new markets.

Europe's position is at risk. The EU is losing ground in high technology products while countries such as China are rapidly catching up. Maintaining the EU's ability to sell expensive top-of-the-range products is not just a matter of technological advance. The quality of products, their environmental performance including their energy-efficiency, their reputation, their related services, the ability to customise or personalise them, the ability to deliver them in a short timeframe or in a way more suited to consumer's needs are all decisive factors in determining prices, but innovation remains critical to stay top class on each of these[28].

5.2. Taiwan's Global Competitiveness

Taiwan is a globally competitive economy. It is a small open economy which has invested strongly in its innovation capacity, and its readiness for future competition appears high.

---

[25] "A new industrial policy: creating the conditions for manufacturing to thrive", Communication from the Commission, COM (2005) 474, 05/10/2005.
[26] CEPII (2004), "European industry's place in the International Division of Labour: situation and prospects".
[27] According to the previously mentioned staff working document, SEC (2006) 1230, 04/10/2006.
[28] See also Commission Communication on "Innovation: Breaking Free", September 2006

The World Economic Forum's Global Competitiveness Report for 2007-2008 ranks Taiwan as 14 overall[29], and fifth in Asia in the same group as Singapore (7^{th}), Japan (8^{th}), Korea (11^{th}) and Hong Kong (12^{th}). Taiwan ranks better than European countries like Austria (15^{th}) and France (18^{th}) in terms of competitiveness.

In order to reveal Taiwan's relative strengths and weakness it is relevant to compare with Korea, which ranks similar overall, and which has other similarities with Taiwan in terms of sector composition, trade flows and size. The WEF Global Competitiveness Index has 12 pillars (see box). From a comparison with Korea it appears that Taiwan is ranked equally high as Korea on eight of these twelve indicators, namely regarding infrastructure, higher education, goods market efficiency, labour market efficiency, technological readiness, market size, business sophistication and innovation.

It also appears that Taiwan outperforms Korea on the indicator regarding *primary education and health* (where Taiwan ranks 6 and Korea ranks 27). Three areas are revealed as specific weaknesses for Taiwan, namely its *institutions* (where Taiwan ranks 37 and Korea ranks 26), the *macro-economic stability* (where Taiwan ranks 26 and Korea ranks 8) and finally - and probably most worrying - *financial market sophistication* where Taiwan ranks 58 and Korea ranks 27).

The Competitive report also reveals some merits for Taiwan. Foreign currency controls, tax rates and inflation are perceived of less of problem than in Korea. As Korea, Taiwan also scores high when it comes to the quality of the workforce. Barely 3 percent of the respondents find problems related to the workforce of most concern, which are rankings not even Japan and Malaysia can match.

The match between the European Union and Taiwan appears to be good. Taiwan is very strong in high-tech manufacturing, machinery and in technology driven innovation. Europe is very strong in these fields too. Only with competitive pressure from the leading world producers in these fields can Europe remain and renew these strengths.

On the other hand, Taiwan must also realise, that only through openness to genuine foreign competition and by adapting their rules and regulatory practices to world standards in essential service markets such as financial services, telecommunications and transport can they successfully address their main weaknesses in for example the lack of *financial market sophistication.* Here, again, there is a good match between Europe's strengths and the challenges facing the Taiwanese economy. Openness to trade will assist both partners in achieving their goals.

[29] In the 2005, Taiwan ranked fifth overall and was the first in Asia. Other newer rankings of global competitiveness give Taiwan a similar rank around number 14, see for example the IMD World Competitiveness ranking.

5.3. EU Advantages from Cross-Strait Integration

Significant economic gains for Taiwan. If economic cross-strait relations are improved, there will be additional and positive effects adding to the gains for the European economy. First of all it will boost economic growth in Taiwan. That in it self will have an effect on European trade – as the Taiwanese economy grows, European exports to Taiwan will go up. Since Europe's competitive advantages is in up-market products that are generally more income sensitive than price sensitive, then this will have a particular positive impact on exports of those income sensitive goods and services.

European firms will benefit. With normalization of cross-strait relations both EU investment in Taiwan and EU investments in China will be more valuable. Investments in Taiwan in for example banking (as ABN Amro or Standard Chartered Bank) could benefit when restrictions of Taiwanese banking in China are relaxed.

Investments made by European firms in China can also benefit. For example, automobile producers with production facilities in China (e.g. Volkswagen) can export cars made in China to Taiwan – a trade made impossible today because of the import ban. Another example is in beverages, where European firms hold significant interests in beverage distribution in China (e.g. Diageo of the UK), who are unable to export from China into Taiwan.

5.4. The Stepping Stone Effect

Taiwan is ahead of China. China is an enormous future growth market. Taiwan is one or several steps ahead of the mainland in terms of development. Financial service is an example, where Taiwan is 10-15 years ahead of mainland China. Taiwan has also served as "testing ground" for European supermarket retailers before entering the Chinese market. A similar effect can be found in other industries. Taiwan can work as a stepping stone to mainland China, and thereby to Asia's future growth market. By building relations and experience in Taiwan today, EU companies will not only tap into a vibrant domestic market, but also gain a significant head start in the competition for the Chinese mainland market. By gaining market access in Taiwan, EU firms gain unique market knowledge and can build business partnerships for further expansion in Asia.

Taiwan has a lot of advantages. Its advanced industrial fabric and its tech-savy and well-educated work force are the prime assets. According to recent studies, the *New Taipei* could also develop to become greater China's services hub, a high-tech service hub, and the creative hub of Greater China[30]. Living conditions are good. The climate is tempered, the Island has scenic coast lines and mountains, there is low pollution and living costs and crime rates are low, according to the CLSA study.

[30] See the study on Taipei City's Competitiveness, "The New Taipei – A competitive city on the edge of Asia", conducted by CLSA Asia-Pacific in cooperation with The European Chamber of Commerce Taipei, March 2008.

Direct links to mainland China will improve Taiwan's position as a regional hub for expansion in Asia. EU firms are already present in Taiwan and have made significant investments there. A package of ambitious trade enhancement measures with Europe will just enhance these advantages. Trade enhancement measures combined with improvement of cross-strait relations (especially lifting capital controls limits) will make those investments much more valuable.

5.5. Summary of Long-Term Strategic Opportunities

Taiwan performs well on most accounts related the long-term productivity enhancing effects from openness to trade. It is, therefore, likely that the so-called strategic effects for the European Union from trade enhancement measures are significant and may compare in size to the static gains we have quantified. Openness to trade with Taiwan will give a boost to European productivity growth and thereby strengthen Europe's competitiveness.

Firms that are prepared for success in the China of tomorrow will have the best starting point. By gaining market access in Taiwan, EU firms gain unique market knowledge and can build business partnerships for further expansion in Asia.

We argue that:

- In line with the thinking in the *Global Europe* strategy, Europe needs an open external approach to enhancing competitiveness, and in order to sustain its competitiveness, Europe needs open relations to world leading markets in advanced manufacturing, leading high-tech markets and innovation-driven economies.
- Taiwan is a world leader in advanced manufacturing, high-tech industries and in innovation, and Taiwan is a globally competitive economy which has invested strongly in its innovation capacity, and its readiness for future competition appears high.
- Taiwan is what China will become in the future. Taiwan is a lead market for China. Therefore, gaining experience in Taiwan can secure success in China. With improvement of the cross-strait relations this process will speed up, and advantages of trade measures with Taiwan are significantly enhanced.