ING International Trade Study
Developments in global trade: from 1995 to 2017
Taiwan
Executive summary

Taiwan is expected to grow on average 3.1% in the coming years. This is relatively low compared to the average of other Asian countries and also relatively low compared to the global average of 3.7%. Because of its own economic growth and that of its main trading partners, Taiwan's exports are expected to grow 12% annually to US$ 608 bn in 2017, making Taiwan the 13th largest exporter worldwide. Similarly, import demand will grow with an average of 17% per year to US$ 722 bn in 2017, meaning that Taiwan will take the 12th position on the global list of largest importers. By 2017, Taiwan will mainly import fuels, office telecom & electrical equipment and chemicals, which together account for 58% of total imports of Taiwan. Similarly, Taiwan's exports will mainly consist of office telecom & electrical equipment, chemicals and other products. Together these products will represent 67% of total exports in 2017. By 2017, Taiwan will mainly import products from China, Japan and the UAE, which together account for 41% of total imports of Taiwan. Taiwan's main export markets will be China, Hong Kong and the US. Together these countries will account for 55% of total exports in 2017.

About the International Trade Study by ING

The ING International Trade Study aims to help ING’s (inter)national clients develop their knowledge and capabilities for doing business across borders, and to contribute to the public debate on internationalization. We do this by generating valuable insights on the current and future economic trends and international trade developments worldwide.

This report is part of a series of ING 2012 International Trade Study reports, which includes forecasts for 60 different country and 13 product group reports. These reports document trade developments over the past years and the ING forecasts (2012-2017) for future international trade patterns and business opportunities, by partner country and export product. These forecasts are derived from a model specifically developed by the ING Economics Bureau (see also Methodology), and complemented with the in-depth knowledge of ING economists in our offices around the world.
Taiwan

2011

Exports by region

Population (mln):

2011 2030
23.2  n/a

GDP per capita:

$ 20,503

Trade by products (bn)

Food & live animals

Exports $2.93
Imports $7.83

Crude materials, inedible, except fuels

Exports $4.42
Imports $15.11

Machinery & Transport equipment

Exports $147.99
Imports $94.03

Beverage & Tobacco

Exports $0.34
Imports $1.33

Manufactured goods

Exports $48.81
Imports $33.80

Mineral fuels

Exports $17.39
Imports $63.13

Animal and vegetable oils

Exports $0.10
Imports $0.51

Miscellaneous manufactured articles

Exports $40.03
Imports $20.65

Chemicals

Exports $40.64
Imports $39.92

*end period
Economic growth in the coming years will remain sluggish in developed markets. Especially the Eurozone will only experience limited growth as the region continues to struggle with the Eurocrisis. World output growth is strongly driven by emerging markets, in particular China and other developing Asian countries.

Taiwanese growth is predicted to be below the developing Asian average, with 4.0% in 2013 and 4.0% in 2014.
### Trade forecast

<table>
<thead>
<tr>
<th>Taiwan</th>
<th>1995</th>
<th>2011</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>World ranking</td>
<td>14</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>CAGR 2012-2017</td>
<td>12.0%</td>
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<td>CAGR 2012-2017</td>
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</table>

In the coming years, exports (in current dollar terms) are expected to increase with 12% annually. The rank of Taiwan in the list of largest exporters worldwide will increase to 13.

Demand for foreign products (imports) is also expected to increase in the next five years, with 17% annually. The rank of Taiwan in the list of largest importers worldwide will increase to 12.

Worldwide, the top three export and import countries in 2017 will be China, United States and Germany. The countries that show the greatest *increase* in demand for imports of foreign products are Vietnam, Indonesia and Taiwan.
Taiwanese import demand

Taiwanese import origins

The size of the bubble represents the size of imports

**Demand for products: origins of imports**

**Main origins of imports, 2011 and 2017***

By 2017, Taiwan will mainly import products from China, Japan and the UAE, which together account for 41% of total imports of Taiwan. In volumes, the most important trade flows to Taiwan currently include fuels from the UAE, office telecom & electrical equipment from China, and fuels from Saudi Arabia. In the coming years, these flows are expected to change with 5%, 11% and 2% per year, respectively.

**Top 10 largest import flows by product and country of origin***

*within the 60 countries and product flows included in the study*
By 2017, Taiwan will mainly import fuels, office telecom & electrical equipment and chemicals, which together account for 58% of total imports of Taiwan.

Note: the sum of flows from 60 countries included in the study.
Where do Taiwanese products go to?

Taiwanese export markets

The size of the bubble represents the size of exports

Exports: key destination markets

Key destination markets of exports, 2011 and 2017*

Taiwan’s main export markets will be China, Hong Kong and the US. Together these countries will account for 55% of total exports in 2017. In volumes, the most important export flows from Taiwan currently consist of office telecom & electrical equipment to China, office telecom & electrical equipment to Hong Kong, and chemicals to China. In the coming years, these flows are expected to change with 11%, 5% and 12% per year, respectively.

Top 10 largest export flows by product and destination country*

<table>
<thead>
<tr>
<th>Taiwan</th>
<th>Export product</th>
<th>Export partner</th>
<th>CAGR 2012-2017</th>
<th>Value 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office, telecom and electrical equipment</td>
<td>China</td>
<td>11%</td>
<td>26250</td>
<td></td>
</tr>
<tr>
<td>Office, telecom and electrical equipment</td>
<td>Hong Kong</td>
<td>5%</td>
<td>22248</td>
<td></td>
</tr>
<tr>
<td>Chemicals</td>
<td>China</td>
<td>12%</td>
<td>19605</td>
<td></td>
</tr>
<tr>
<td>Other products</td>
<td>China</td>
<td>9%</td>
<td>18111</td>
<td></td>
</tr>
<tr>
<td>Office, telecom and electrical equipment</td>
<td>United States</td>
<td>6%</td>
<td>16893</td>
<td></td>
</tr>
<tr>
<td>Office, telecom and electrical equipment</td>
<td>Singapore</td>
<td>12%</td>
<td>11510</td>
<td></td>
</tr>
<tr>
<td>Office, telecom and electrical equipment</td>
<td>South Korea</td>
<td>15%</td>
<td>7484</td>
<td></td>
</tr>
<tr>
<td>Industrial machinery</td>
<td>China</td>
<td>11%</td>
<td>6592</td>
<td></td>
</tr>
<tr>
<td>Office, telecom and electrical equipment</td>
<td>Japan</td>
<td>7%</td>
<td>6108</td>
<td></td>
</tr>
<tr>
<td>Ores and metals</td>
<td>China</td>
<td>9%</td>
<td>4686</td>
<td></td>
</tr>
</tbody>
</table>

*within the 60 countries and product flows included in the study
By 2017, Taiwan’s exports will mainly consist of office telecom & electrical equipment, chemicals and other products. Together these products will represent 67% of total exports in 2017.

Note: the sum of flows to 60 countries included in the study.
Methodology and data considerations

Our forecasts are derived from an econometric model of international trade in goods among 60 countries. Trade among these countries represents 87% of world trade in goods classified by SITC excluding SITC 9.

• Data (1990-2011) for exports from and among 60 countries (forming 3600 country pairs) at the SITC(rev.3) 2-digit product classification were obtained from UNCTAD International Trade Statistics.

• These were combined with several macroeconomic variables, including GDP, GDP growth, and unit labour costs (GDP/capita) (for both the origin and destination country; source: IMF), as well as geographical distance and cultural distance between the two countries in each country pair (source: CEPII; Hofstede).

• Forecasts for macroeconomic variables (GDP, GDP growth and ULC) for the 2012-2017 period were based on our own ING forecasts.

• The trade forecasts were derived from a single equation ADL, explaining 90% of the variance in the dependent variable, specified as follows:

\[
\text{LogExports}_{ijk} = \alpha_j + \alpha_d + \beta_1 \text{LogExports}_{ijk-1} + \beta_2 \left( \text{LogExports}_{ijk-1} \right)^2 + \beta_3 d \text{LogExports}_{ijk-1} \times d + \gamma X_{ijk} + \epsilon_{ijk}
\]

where \( \text{LogExports}_{ijk} \) represents the logarithmic value of exports of country \( i \) to country \( j \) of product \( k \) at time \( t \), \( \alpha_j \) the set of partner fixed effects, \( \alpha_d \) the set of product group fixed effects, \( \text{LogExports} \times d \) the set of interactions between LogExports and the product group binary variables \( d \), and \( X \) the set of independent variables with their vector of coefficients \( \gamma \), and \( \epsilon_{ijk} \) the residual.

The set of independent variables \( (X) \) includes (the log of) GDP; GDP growth and ULC for the reporter \( (i) \) and partner countries \( (j) \) and the geographical and cultural distance between them.
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The final text was completed on 1 November
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