

## December export orders

### Export orders to decline YoY in January; 2024F export orders to grow by mid-to-high single digits

#### Key message

1. December export orders were down 16.0% YoY, far below market consensus. Electronics saw the worst performance, while order contraction for raw materials was largely the same as the previous month.
2. Orders from Europe were weakest; ASEAN was the only region with positive order growth YoY in 2023.
3. We expect export orders to retreat in January, while we maintain our forecast of 2024F export orders to grow by mid-to-high single digits.

#### December export orders down 16.0% YoY, below market expectations

Taiwan export orders totaled US\$43.81bn in December, down 13.5% MoM (down 11.6% seasonally-adjusted) and 16.0% YoY, far below consensus of a 1.0% YoY decline (see Figure 1). 2023 export orders were down 15.9%, the worst figure since 1984, even below the dot.com bubble and financial crisis levels, due to a very high base.

#### Electronics weakest; order contraction of raw materials same as previous month

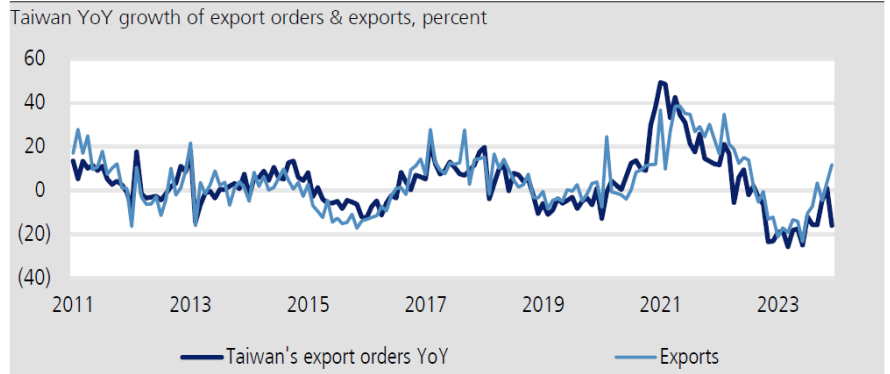
Among major products, ICT orders declined 24.2% MoM and 25.3% YoY to US\$12.27bn in December as end-demand was sluggish, leading to lower orders for handset, NB and networking; however, improved server orders on higher computing performance requirements and AI demand partially offset this decline. December electronics orders fell 12.9% YoY to US\$14.92bn, mainly as anemic demand for end-products and inventory adjustments in supply chains resulted in lower orders for foundries, PCB and wafer distributors; however, IC design improved, partially offsetting this decline. Optical instrument orders slipped 0.3% YoY to US\$1.61bn on lower backlight module orders, while orders for large-size panels and optical lenses both rose, offsetting the contraction. Overall order contraction for raw materials remained largely the same as the month before, while different industries faced different scenarios. Base metal orders were down 1.7% YoY as steel demand was weak on a slower global economy; however, the contraction narrowed on inventory replenishment from clients during steel price hikes. Plastics and rubber order decline, which widened to 15.2% YoY on sluggish end consumer demand, was the key reason for insignificant contraction for the raw materials sector, due to sluggish end demand and conservative order placement from downstream clients, as overseas competitors have ramped up new capacity, lowering prices from last year. Chemicals orders faced the same headwinds, though the contraction narrowed to 6.5% YoY from 7.9% YoY in November. Machinery orders fell 10.5% YoY, as contraction continued to narrow from the previous month; however, manufacturers continued to cut equipment investment due to a global economic slowdown (see Figures 2 & 3).

#### Among major regions, orders from Europe saw the worst performance; ASEAN was the only region to register positive YoY growth in 2023

Orders from the US fell 21.3% YoY in December, with ICT exports down by 34.3% (US\$2.3bn). Overall 2023 orders were down 14.8%, better than other regions. Orders from China and Hong Kong fell 3.5% YoY, with plastics/rubber down by US\$170mn (down 26.5%) and chemicals down by US\$80mn (down 12.4%). 2023 overall orders for the region declined by 17.2%. Orders from Europe narrowed to a decline of 39.4% YoY, with ICT down the most at 47.7% YoY. 2023 total orders were down 30.2%, the worst regional performance. Orders from the ASEAN and Japan were respectively up by 32.4% YoY and down by 30.5% YoY. In terms of 2023 export orders of both regions, they were respectively up 14.7% and down 12.9% (see Figures 4 & 5).

#### Outlook – Export orders continue to decline in January; we maintain our forecast of 2024F export orders to grow by mid-to-high single digits

December export orders significantly missed our forecast and market consensus and were far below corporate expectations. The Taiwan household-based diffusion index is at 43.7 in January, while the order value-based diffusion index is at 46.5 (see Figure 6). We believe export orders will continue to decline in January, while the outlook is poor as the electronics sector enters slow season in 1Q24. As we believe more significant YoY growth will emerge in 2Q24F, we maintain our forecast of 2024F export orders to grow by mid-to-high single digits.

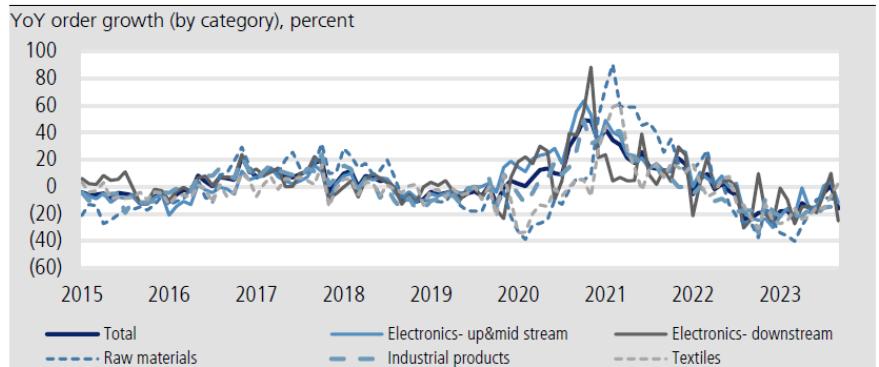
**Figure 1: December export orders were down 16.0% YoY, below market consensus**


Source: Bloomberg; KGI Research

**Figure 2: Main order categories**

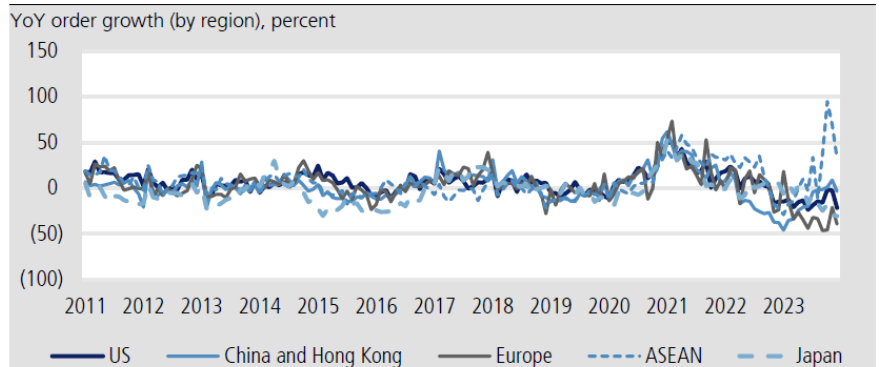
|                 | Dec-23         |               |               | From Jan-23 to Dec-23 |               |               |
|-----------------|----------------|---------------|---------------|-----------------------|---------------|---------------|
|                 | Value (US\$bn) | MoM (%)       | YoY (%)       | Value (US\$bn)        | Weighting (%) | YoY (%)       |
| ICT             | 12.3           | (24.2)        | (25.3)        | 166.0                 | 29.6          | (12.6)        |
| Electronics     | 14.9           | (16.2)        | (12.9)        | 189.8                 | 33.8          | (15.1)        |
| Optics          | 1.6            | (3.6)         | (0.2)         | 19.1                  | 3.4           | (14.2)        |
| Base metals     | 2.1            | 3.4           | (1.7)         | 25.1                  | 4.5           | (20.9)        |
| Machinery       | 1.6            | 3.0           | (10.5)        | 19.2                  | 3.4           | (20.0)        |
| Plastics/rubber | 1.5            | 1.2           | (15.2)        | 18.8                  | 3.3           | (25.9)        |
| Chemicals       | 1.5            | 3.7           | (6.5)         | 17.4                  | 3.1           | (25.5)        |
| <b>Total</b>    | <b>43.8</b>    | <b>(13.5)</b> | <b>(16.0)</b> | <b>561.0</b>          | <b>100.0</b>  | <b>(15.9)</b> |

Source: Bloomberg; KGI Research

**Figure 3: Electronics orders weakest; contraction of raw materials same as previous month**


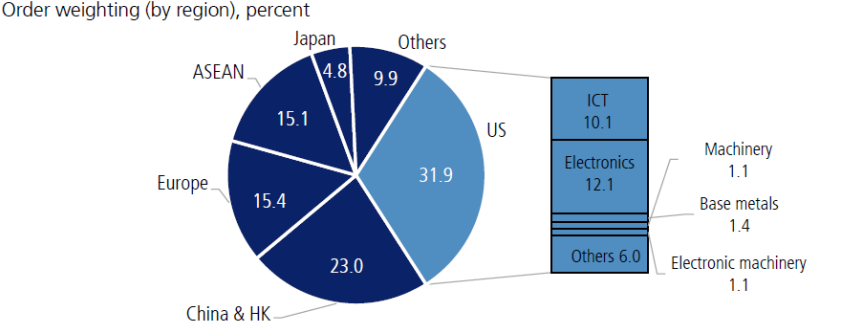
Note: Midstream/ upstream electronics comprises electronic products and optical apparatus; downstream electronics are information and communication categories; raw materials comprises chemicals, plastics/ rubber products, base metals and minerals; industrial products are machinery, electrical machinery products and transport equipment

Source: Bloomberg; KGI Research

**Figure 4: Orders from Japan & Europe saw worst performance; ASEAN the only region to register positive order growth in 2023**


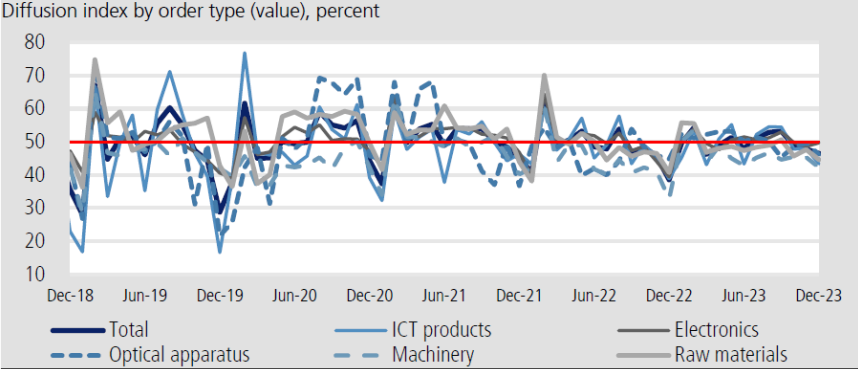
Source: Bloomberg; KGI Research

**Figure 5: Order weightings of all regions changed slightly MoM**



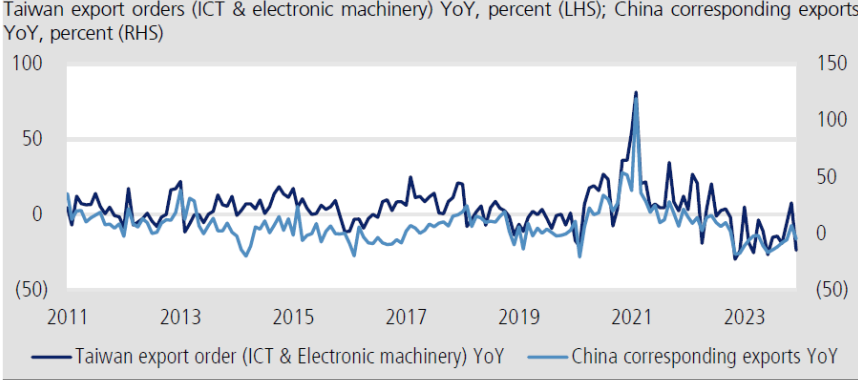
Source: Bloomberg; MOEA; KGI Research

**Figure 6: Diffusion index indicates January export orders will still fall slightly MoM**



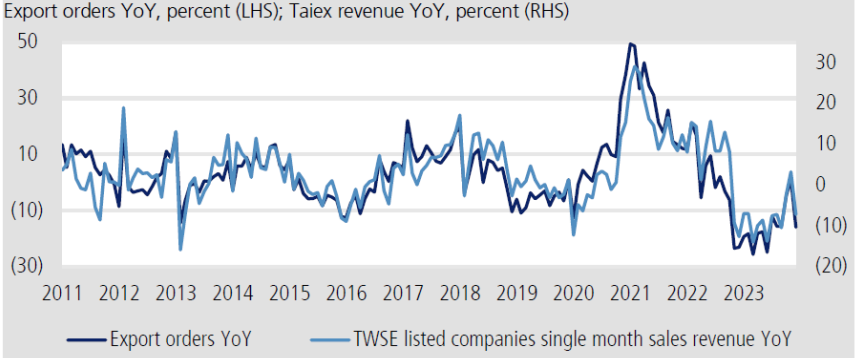
Note: Raw materials include chemicals, plastic/rubber products, base metals, and minerals  
Source: Bloomberg; KGI Research

**Figure 7: China corresponding exports slipped as orders for ICT & electronic machinery slumped in December**



Source: Bloomberg; KGI Research

**Figure 8: Export orders YoY growth narrowed, in line with YoY Taiex revenue retreat**



Source: Bloomberg; KGI Research

**Figure 9: Major international political & economic events over the next quarter**

| Date       | Major event                                | Possible effect  |
|------------|--|--|
| January 23 | US Democratic Party presidential primaries | Biden is still the first choice of the Democratic presidential candidate, but whether there will be concerns about age and other factors that will lead to the subsequent selection of a new candidate is the focus of observation throughout the primary election |
| January 25 | ECB monetary policy meeting                | There will have been no interest rate cut, but the meeting will give enough guidance on future rate cuts   |
| March      | China's Two Sessions                       | The tone of "maintaining stability" is expected to be repeated; more implementation details will be revealed   |
| March 5    | US presidential primaries Super Tuesday    | The presidential candidates of both parties can be basically determined, and market uncertainties will ease, as will risk premium  |

Source: KGI Research

**Figure 10: Key economic data, US**

| Indicators   |   | Units       | 2020    | 2021   | 2022   | 2023   | Jan-23 | Feb-23 | Mar-23 | Apr-23 | May-23 | Jun-23 | Jul-23 | Aug-23 | Sep-23 | Oct-23 | Nov-23 | Dec-23 |
|--|---|-------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| GDP  | GDP QoQ SAAR  | QoQ %, SAAR |         |        |        |        |        |        | 2.2    |        |        | 2.1    |        |        | 4.9    |        |        |        |
|  | GDP YoY   | YoY %       | (2.2)   | 5.8    | 1.9    |        |        |        | 1.7    |        |        | 2.4    |        |        | 2.9    |        |        |        |
| Consumer prices  | CPI   | YoY %       | 1.2     | 4.7    | 8.0    | 4.1    | 6.4    | 6.0    | 5.0    | 4.9    | 4.0    | 3.0    | 3.2    | 3.7    | 3.7    | 3.2    | 3.1    | 3.4    |
|  | Core CPI  | YoY %       | 1.7     | 3.6    | 6.2    | 4.8    | 5.6    | 5.5    | 5.6    | 5.5    | 5.3    | 4.8    | 4.7    | 4.3    | 4.1    | 4.0    | 4.0    | 3.9    |
|  | PCE price index                                     | YoY %       | 1.1     | 4.2    | 6.5    |        | 5.5    | 5.2    | 4.4    | 4.4    | 4.0    | 3.2    | 3.3    | 3.3    | 3.4    | 2.9    | 2.6    |        |
|  | Core PCE index                                      | YoY %       | 1.3     | 3.6    | 5.2    |        | 4.9    | 4.8    | 4.8    | 4.8    | 4.7    | 4.3    | 4.2    | 3.7    | 3.6    | 3.4    | 3.2    |        |
| Labor market   | Labor force participation rate                      | %           | 61.5    | 62.0   | 62.3   | 62.5   | 62.4   | 62.5   | 62.6   | 62.6   | 62.6   | 62.6   | 62.6   | 62.8   | 62.8   | 62.7   | 62.8   | 62.5   |
|  | Unemployment rate                                   | %           | 8.1     | 5.4    | 3.6    | 3.6    | 3.4    | 3.6    | 3.5    | 3.4    | 3.7    | 3.6    | 3.5    | 3.8    | 3.8    | 3.8    | 3.7    | 3.7    |
|  | Non farm payrolls                                   | '000        | (9,289) | 7,267  | 4,793  | 2,697  | 472    | 248    | 217    | 217    | 281    | 105    | 236    | 165    | 262    | 105    | 173    | 216    |
|  | Net Change in total employment in labor force       | '000        | (8,856) | 6,135  | 4,793  | 2,697  | 852    | 149    | 523    | 138    | (255)  | 297    | 205    | 291    | 50     | (270)  | 586    | (683)  |
|  | Challenger job cut announce                         | YoY %       | 15.8    | (1.2)  | (1.7)  | 2.1    | 440    | 410    | 319    | 176    | 287    | 25     | (8)    | 267    | 58     | 9      | (41)   | (20)   |
|  | Opening/ hiring                                     | x           | 1.07    | 1.57   | 1.74   |        | 1.67   | 1.62   | 1.61   | 1.69   | 1.54   | 1.54   | 1.53   | 1.62   | 1.58   | 1.52   | 1.61   |        |
|  | Aug. hourly earnings                                | YoY %       | 5.5     | 5.0    | 4.8    | 4.1    | 4.4    | 4.7    | 4.3    | 4.4    | 4.3    | 4.4    | 4.3    | 4.3    | 4.2    | 4.1    | 4.0    | 4.1    |
| Economic activity & business condition                   | Industrial production                               | YoY %       | (7.2)   | 4.4    | 3.4    | 0.2    | 1.5    | 0.9    | 0.2    | 0.4    | 0.1    | (0.4)  | 0.1    | 0.0    | (0.2)  | (0.9)  | (0.6)  | 1.0    |
|  | Durable goods orders                                | YoY %       | (4.6)   | 18.4   | 8.3    |        | 2.3    | 0.2    | 4.6    | 2.7    | 7.5    | 9.0    | 2.9    | 3.0    | 5.9    | 0.7    | 10.0   |        |
|  | Core capital goods orders                           | YoY %       | (8.3)   | 12.8   | 6.5    |        | 5.6    | 2.7    | 1.9    | 1.0    | 3.2    | 1.4    | 0.4    | 0.6    | 0.5    | 0.8    | 1.5    |        |
|  | Total business inventory/ sales ratio               | x           | 1.44    | 1.29   | 1.34   |        | 1.37   | 1.38   | 1.40   | 1.40   | 1.40   | 1.40   | 1.39   | 1.37   | 1.36   | 1.37   | 1.37   |        |
|  | Manufacturing inventory/ sales ratio                | x           | 1.62    | 1.49   | 1.47   |        | 1.48   | 1.49   | 1.48   | 1.50   | 1.49   | 1.48   | 1.47   | 1.46   | 1.46   | 1.48   | 1.48   |        |
|  | Retail inventory/ sales ratio                       | x           | 1.34    | 1.15   | 1.24   |        | 1.27   | 1.28   | 1.30   | 1.29   | 1.30   | 1.30   | 1.30   | 1.30   | 1.30   | 1.30   | 1.30   |        |
|  | ISM manufacturing index                             | Point       | 52.4    | 60.7   | 53.5   | 47.1   | 47.4   | 47.7   | 46.3   | 47.1   | 46.9   | 46.0   | 46.4   | 47.6   | 49.0   | 46.7   | 46.7   | 47.4   |
|  | ISM non-manufacturing index                         | Point       | 54.3    | 62.4   | 56.1   | 52.8   | 55.2   | 55.1   | 51.2   | 51.9   | 50.3   | 53.9   | 52.7   | 54.5   | 53.6   | 51.8   | 52.7   | 50.6   |
|  | ISM manufacturing index: new orders                 | Point       | 53.9    | 64.3   | 51.6   | 46.0   | 42.5   | 47.0   | 44.3   | 45.7   | 42.6   | 45.6   | 47.3   | 46.8   | 49.2   | 45.5   | 48.3   | 47.1   |
|  | Chicago Fed National activity Index                 | Point       | (0.46)  | 0.40   | (0.02) |        | 0.40   | (0.29) | (0.50) | 0.08   | (0.17) | (0.43) | 0.17   | (0.14) | 0.02   | (0.66) | 0.03   |        |
|  | Conference board leading index                      | YoY %       | (4.6)   | 6.6    | 0.9    |        | (6.0)  | (6.8)  | (7.9)  | (8.1)  | (7.9)  | (7.9)  | (7.9)  | (7.6)  | (7.7)  | (7.9)  | (8.0)  | (7.6)  |
| C&I Loans for large/medium - tightening lending standard | %   | 37.6        | (15.1)  | 11.8   | 43.9   | 44.8   |        |        |        | 46.0   |        |        | 50.8   |        |        | 33.9   |        |        |
| C&I Loans for large/medium - stronger demand             | %   | (15.5)      | (1.2)   | 12.4   | (42.3) | (31.3) |        |        | (55.6) |        |        | (51.6) |        | (30.5) |        |        |        |        |
| Housing market   | Building Permits                                    | '000, SAAR  | 1,479   | 1,740  | 1,666  | 1,462  | 1,354  | 1,482  | 1,437  | 1,417  | 1,496  | 1,441  | 1,443  | 1,541  | 1,471  | 1,498  | 1,467  | 1,495  |
|  | Housing starts                                      | '000, SAAR  | 1,397   | 1,606  | 1,551  | 1,415  | 1,340  | 1,436  | 1,380  | 1,348  | 1,583  | 1,418  | 1,451  | 1,305  | 1,356  | 1,376  | 1,525  | 1,460  |
|  | New home sales                                      | '000, SAAR  | 833     | 769    | 637    |        | 649    | 625    | 640    | 679    | 710    | 683    | 728    | 654    | 700    | 672    | 590    |        |
|  | Existing home sales                                 | mn, SAAR    | 5.6     | 6.1    | 5.1    | 4.1    | 4.0    | 4.6    | 4.4    | 4.3    | 4.3    | 4.2    | 4.1    | 4.0    | 4.0    | 3.8    | 3.8    | 3.8    |
|  | NAHB housing market index                           | Point, SA   | 70      | 81     | 59     | 44     | 35     | 42     | 44     | 45     | 50     | 55     | 56     | 50     | 44     | 40     | 34     | 37     |
|  | S&P/Case-Shiller 20-city composite home price index | YoY %       | 10.3    | 18.6   | 4.8    |        | 2.8    | 0.6    | (1.0)  | (1.7)  | (1.8)  | (1.2)  | 0.1    | 2.2    | 4.0    | 4.9    |        |        |
| Consumption  | Personal expenditures                               | YoY %, SA   | (2.5)   | 8.4    | 2.5    |        | 2.3    | 2.3    | 1.7    | 1.6    | 1.8    | 2.1    | 2.5    | 2.0    | 2.1    | 2.0    | 2.7    |        |
|  | Retail sales  | YoY %       | 0.9     | 18.2   | 9.7    | 3.4    | 7.4    | 5.3    | 2.2    | 1.3    | 2.1    | 1.5    | 2.8    | 2.8    | 4.0    | 2.2    | 4.0    | 5.6    |
|  | Retail sales ex-autos                               | YoY %       | 1.7     | 17.2   | 11.3   | 3.2    | 8.4    | 6.4    | 2.5    | 1.6    | 1.4    | 0.5    | 1.7    | 2.4    | 3.4    | 2.0    | 3.4    | 4.5    |
|  | Domestic vehicles sales                             | mn, SA      | 173.0   | 179.2  | 164.8  | 185.2  | 15.7   | 14.9   | 14.8   | 15.9   | 15.1   | 15.7   | 15.7   | 15.0   | 15.7   | 15.5   | 15.3   | 15.8   |
|  | Conference board consumer confidence                | Point       | 101.0   | 112.7  | 104.5  | 105.6  | 106.0  | 103.4  | 104.0  | 103.7  | 102.5  | 110.1  | 114.0  | 108.7  | 104.3  | 99.1   | 101.0  | 110.7  |
|  | Michigan Consumer Sentiment Index                   | Point       | 81.5    | 77.6   | 59.0   | 65.4   | 64.9   | 66.9   | 62.0   | 63.7   | 59.0   | 64.2   | 71.5   | 69.4   | 67.9   | 63.8   | 61.3   | 69.7   |
| Fiscal   | Budget balance                                      | As % of GDP | (15.2)  | (10.5) | (5.4)  | (6.5)  | (5.9)  | (6.1)  | (6.7)  | (7.2)  | (7.8)  | (8.3)  | (8.4)  | (5.6)  | (6.3)  | (5.2)  | (6.3)  | (6.5)  |
|  | Current account balance                             | As % of GDP | (2.8)   | (3.5)  | (3.8)  |        | (3.4)  |        |        |        |        | (3.2)  |        |        | (3.1)  |        |        |        |
| Int'l balance  | Net foreign securities transactions                 | US \$bn     | 505     | 907    | 1,321  |        | 30.8   | 150.3  | 173.6  | 102.3  | 18.8   | 163.5  | 11.1   | 92.1   | (0.7)  | 3.4    | 126.1  |        |
|  | Federal funds rate                                  | %           | 0.25    | 0.25   | 4.50   | 5.50   | 4.50   | 4.75   | 5.00   | 5.00   | 5.25   | 5.25   | 5.50   | 5.50   | 5.50   | 5.50   | 5.50   | 5.50   |
| Monetary & financial                                     | 10-Year treasury yield                              | %           | 0.91    | 1.51   | 3.87   | 3.88   | 3.51   | 3.92   | 3.47   | 3.42   | 3.64   | 3.84   | 3.96   | 4.11   | 4.57   | 4.93   | 4.33   | 3.88   |
|  | Dollar index  | Point       | 89.9    | 95.7   | 103.5  | 101.3  | 102.1  | 104.9  | 102.5  | 101.7  | 104.3  | 102.9  | 101.9  | 103.6  | 106.2  | 106.7  | 103.5  | 101.3  |

Source: Bloomberg; KGI Research

Figure 11: Key economic data, Taiwan

| Indicators                     |                                 | Units   | 2020  | 2021  | 2022  | 2023   | Jan-23 | Feb-23 | Mar-23 | Apr-23 | May-23 | Jun-23 | Jul-23 | Aug-23 | Sep-23      | Oct-23 | Nov-23      | Dec-23 |
|--------------------------------|---------------------------------|---------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|--------|-------------|--------|
| GDP                            | GDP YoY                         | YoY %   | 3.4   | 6.6   | 2.6   |        |        |        | (3.5)  |        |        | 1.4    |        |        | 2.3         |        |             |        |
| Consumer prices                | CPI                             | YoY %   | (0.2) | 2.0   | 3.0   | 2.5    | 3.1    | 2.4    | 2.4    | 2.4    | 2.0    | 1.8    | 1.9    | 2.5    | 2.9         | 3.1    | 2.9         | 2.7    |
|                                | Core CPI                        | YoY %   | 0.7   | 1.9   | 2.7   | 2.4    | 3.0    | 2.6    | 2.6    | 2.7    | 2.6    | 2.6    | 2.7    | 2.6    | 2.5         | 2.5    | 2.4         | 2.4    |
| Labor market                   | Unemployment rate               | %       | 3.7   | 3.7   | 3.6   | 3.4    | 3.6    | 3.6    | 3.6    | 3.6    | 3.5    | 3.5    | 3.4    | 3.4    | 3.4         | 3.4    | 3.4         | 3.4    |
| Economic activity              | Industrial production           | YoY %   | 8.8   | 14.7  | (1.7) |        | (23.6) | (10.0) | (16.0) | (22.6) | (15.7) | (17.3) | (15.5) | (10.8) | (6.9)       | (2.3)  | (2.5)       |        |
|                                | Market Taiwan manufacturing PMI | Point   |       | 58.5  | 47.7  | 46.3   | 44.3   | 49.0   | 48.6   | 47.1   | 44.3   | 44.8   | 44.1   | 44.3   | 46.4        | 47.6   | 48.3        | 47.1   |
|                                | NDC monitoring light signal     |         |       |       |       |        | Blue   | Blue   | Blue   | Blue   | Blue   | Blue   | Blue   | Blue   | Yellow-blue | Blue   | Yellow-blue |        |
|                                | NDC monitoring indicators       | Point   | 24.3  | 39.0  | 24.2  |        | 11.0   | 10.0   | 11.0   | 11.0   | 12.0   | 13.0   | 15.0   | 15.0   | 17.0        | 16.0   | 20.0        |        |
|                                | NDC composite leading index     | YoY %   | (0.5) | 4.6   | (2.8) |        | (5.8)  | (5.3)  | (4.9)  | (4.5)  | (4.1)  | (3.6)  | (3.3)  | (3.2)  | (3.4)       | (3.9)  | (4.6)       |        |
| NDC composite coincident index | YoY %                           | (0.7)   | 7.1   | (1.1) |       | (13.3) | (14.2) | (14.4) | (14.0) | (13.0) | (11.6) | (9.7)  | (7.6)  | (5.3)  | (3.0)       | (0.7)  |             |        |
| Consumption                    | Retail sales                    | YoY %   | 0.2   | 3.3   | 7.4   |        | 4.3    | 4.6    | 7.6    | 7.5    | 17.1   | 13.9   | 5.3    | 4.3    | 6.9         | 5.1    | 7.3         |        |
| Trade                          | Exports                         | US\$bn  | 345.2 | 446.6 | 479.7 | 432.6  | 31.5   | 31.1   | 35.2   | 36.0   | 36.1   | 32.3   | 38.7   | 37.4   | 38.8        | 38.1   | 37.5        | 39.9   |
|                                | Imports                         | US\$bn  | 285.8 | 381.3 | 428.1 | 352.1  | 29.2   | 28.7   | 31.0   | 29.3   | 31.3   | 26.4   | 30.3   | 28.8   | 28.5        | 32.3   | 27.7        | 28.8   |
|                                | Trade balance                   | US\$bn  | 59.4  | 65.3  | 51.6  | 80.5   | 2.3    | 2.4    | 4.2    | 6.7    | 4.9    | 6.0    | 8.5    | 8.6    | 10.3        | 5.8    | 9.8         | 11.1   |
|                                | Export growth                   | YoY %   | 4.9   | 29.4  | 7.4   | (9.8)  | (21.2) | (17.1) | (19.1) | (13.3) | (14.1) | (23.4) | (10.4) | (7.3)  | 3.4         | (4.5)  | 3.8         | 11.8   |
|                                | Import growth                   | YoY %   | 0.1   | 33.4  | 12.3  | (17.8) | (16.8) | (9.5)  | (20.1) | (20.3) | (21.8) | (30.1) | (21.0) | (23.0) | (12.2)      | (12.4) | (14.8)      | (6.5)  |
|                                | Export orders                   | US\$bn  | 533.7 | 674.1 | 666.8 | 561.0  | 47.5   | 42.1   | 46.6   | 42.5   | 45.7   | 44.2   | 47.7   | 46.0   | 51.4        | 52.9   | 50.6        | 44     |
|                                | Export order growth             | YoY %   | 10.1  | 26.3  | (1.1) | (15.9) | (19.3) | (18.3) | (25.7) | (18.1) | (17.6) | (24.9) | (12.0) | (15.7) | (15.6)      | (4.6)  | 1.0         | (16.0) |
| Monetary & financial           | M1B                             | YoY %   | 16.2  | 12.8  | 4.1   |        | 2.7    | 2.0    | 2.0    | 2.7    | 3.3    | 2.4    | 3.7    | 2.9    | 2.8         | 3.3    | 3.0         |        |
|                                | M2                              | YoY %   | 8.5   | 8.0   | 7.1   |        | 6.7    | 6.8    | 6.6    | 6.7    | 6.6    | 5.9    | 6.9    | 6.5    | 6.0         | 5.7    | 5.3         |        |
|                                | Foreign reserves                | US\$bn  | 529.9 | 548.4 | 554.9 | 570.6  | 557.1  | 558.4  | 560.3  | 561.1  | 562.9  | 564.8  | 566.5  | 565.5  | 564.0       | 561.1  | 567.5       | 570.6  |
|                                | Rediscount rate                 | %       | 1.1   | 1.1   | 1.8   | 1.9    | 1.8    | 1.8    | 1.9    | 1.9    | 1.9    | 1.9    | 1.9    | 1.9    | 1.9         | 1.9    | 1.9         | 1.9    |
|                                | Exchange rate                   | USD/TWD | 28.3  | 27.7  | 30.7  | 30.7   | 30.0   | 30.5   | 30.5   | 30.7   | 30.8   | 31.1   | 31.4   | 31.9   | 32.3        | 32.4   | 31.3        | 30.7   |

Source: Bloomberg; KGI Research

**All the above named KGI analyst(s) is SFC licensed person accredited to KGI Asia Ltd to carry on the relevant regulated activities. Each of them and/or his/her associate(s) does not have any financial interest in the respectively covered stock, issuer and/or new listing applicant.**

**Disclaimer**

All the information contained in this report is not intended for use by persons or entities located in or residing in jurisdictions which restrict the distribution of this information by KGI Asia Limited ("KGI") or an affiliate of KGI. Such information shall not constitute investment advice, or an offer to sell, or an invitation, solicitation or recommendation to subscribe for or invest in any securities or investment products or services nor a distribution of information for any such purpose in any jurisdiction. In particular, the information herein is not for distribution and does not constitute an offer to sell or the solicitation of any offer to buy any securities in the United States of America, or to or for the benefit of United States persons (being residents of the United States of America or partnerships or corporations organized under the laws of the United States of America or any state, territory or possession thereof). All the information contained in this report is for general information and reference purpose only without taking into account of any particular investor's objectives, financial situation or needs. Such information is not intended to provide professional advice and should not be relied upon in that regard.

Some of KGI equity research and earnings estimates are available electronically on www.kgi.com.hk. Please contact your KGI representative for information. The information and opinions in this report are those of KGI internal research activity. KGI does not make any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information and opinions contained in this report. The information and opinions contained in this report are subject to change without any notice. No person accepts any liability whatsoever for any loss however arising from any use of this report or its contents. This report is not to be construed as an invitation or offer to buy or sell securities and/or to participate in any investment activity. This report is being supplied solely for informational purposes and may not be redistributed, reproduced or published (in whole or in part) by any means for any purpose without the prior written consent of KGI. Members of the KGI group and their affiliates may provide services to any companies and affiliates of such companies mentioned herein. Members of the KGI group, their affiliates and their directors, officers and employees may from time to time have a position in any securities mentioned herein.