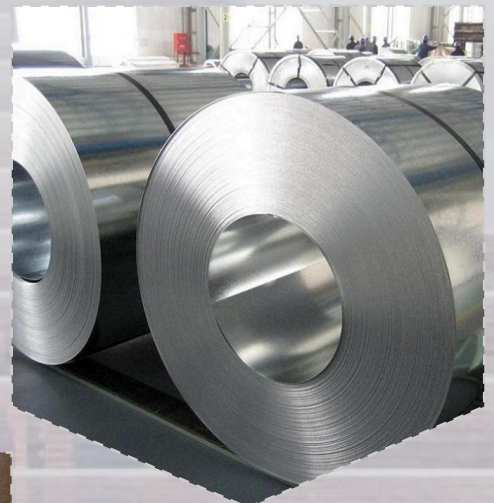
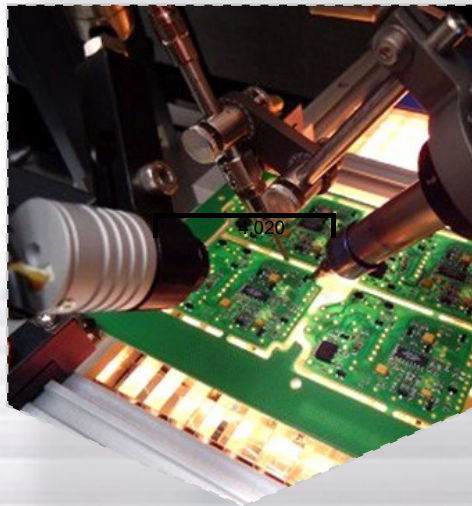


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NEWSLETTER

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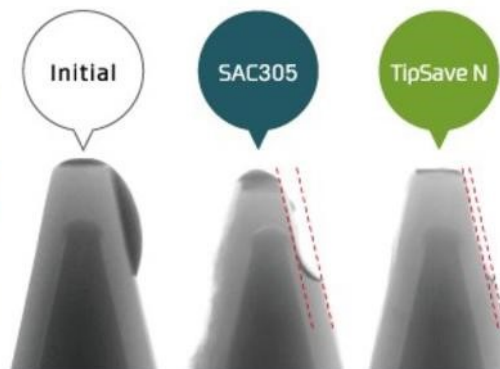
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PRESIDENT'S NOTE

Dear Members,

Developments in the second quarter of 2020 have mainly been on the Government's fight against the spread of Covid-19. After an initial two-week imposition of the Movement Control Order (MCO) which ended on 1 April 2020, the Government continued with the MCO until 3 May 2020. The extension was necessary as the Covid-19 pandemic was still a threat and needed containment. The MCO was then relaxed with the introduction of the Conditional MCO (CMCO) from 4 May to 9 June 2020 whereby certain non-essential economic activities were allowed to resume operations. Subsequently, on 7 June 2020, the Prime Minister announced further relaxation with the introduction of the Recovery MCO (RMCO) from 10 June to 31 August 2020 to replace the CMCO. During the RMCO, the Government allowed all economic activities, with a few exceptions, to resume operations but in strict compliance with the Standard Operating Procedures (SOP). The announcement which was well received by industry players, had helped significantly in boosting the economic recovery.

As you are all aware, the Covid-19 pandemic has had a resurgence in many parts of the world, with skyrocketing numbers in the United States, Brazil, India and the UK. The situation is grave for the global economy, and the International Monetary Fund (IMF) has projected that the world economy will contract by 4.9% for the year 2020.

Amidst this gloomy scenario, Malaysia's economic performance in the first quarter of 2020 recorded a positive growth of 0.7% despite earlier negative projections of -1.0% to -4.0% by many international monetary agencies. According to Bank Negara Malaysia (BNM) this laudable performance was largely the result of good performance in the services and manufacturing sectors, and strong private and public consumption expenditures. Indeed, we should be proud that our country could achieve such a remarkable performance, albeit facing the Covid-19 pandemic issues, the low oil price, domestic political turmoil and disruption in the supply chain. Malaysia's economy is forecast to likely recover in the third quarter of 2020, but will very much depend on the success of the measures undertaken by the Government in mitigating and containing the spread of Covid-19.

The performance of the global tin market has also been impacted by the Covid-19 pandemic. The tin price continued to drop from a level of between US\$17,000 to US\$18,000 per tonne early this year to its lowest level of US\$13,375 per tonne on the London Metal Exchange on 19 March 2020. Since April, however, the tin price has started to improve gradually. The continuation of this upward trend, will much depend on the ability of the major global economies to contain and mitigate the spread of the Corona Virus.

Before concluding this brief Note, may I remind all Association members to accept the fact that the Covid-19 is here to stay, and that we have to share this responsibility to help the Government curb the spread of the virus by strictly adhering to the SOP, and to adapt to the new normal. Stay safe everyone!

With warmest regards.

Yew Wei Aun



YEW WEI AUN

PRESIDENT
THE MALAYSIAN TIN PRODUCTS
MANUFACTURERS'
ASSOCIATION (MTPMA)



*Wishing Muslim Members
of
The Malaysian Tin Products
Manufacturers' Association*

*Selamat Hari Raya Aidilfitri
Maaf Zahir Batin*



ECONOMIC NEWS

World Bank cuts GDP Forecast

Uncertainties arising from the large-scale disruptions to economic activity due to the Covid-19 pandemic, has resulted in the World Bank slashing Malaysia's 2020 GDP growth projection to negative 0.1%. This is a sharp downward revision from its previous expectation of GDP growth of 4.5%.

The World Bank, in a report, said the revision incorporated slower growth momentum from the second half of 2019, but more significantly, the impact of the pandemic under a scenario whereby the disruptions to economic activities would extend for most of the year, before a partial recovery in the fourth quarter.

In a video conference, the World Bank Group's Macroeconomics, Trade and Investment Global Practice's lead economist for Malaysia, Richard Record said they also see a 3.9% decline in Malaysia's net exports this year, reflecting a combination of the direct impact from the pandemic on supply chains and networks, the impact on production outages during the movement control order (MCO) period, and the anticipated sharply lower regional and global growth.

At the very best, Record said a very modest growth in east Asia is expected, while in a lower-case scenario, a recession is anticipated in the region. "This will result in a contraction in demand for all of Malaysia's export tradeable. Malaysia has to try to preserve as much of the structure of the economy as possible, so the export industry is able to bounce back when we see a recovery, hopefully in 2021," he said. The MCO, he said, was a "painful but necessary medicine" to flatten the curve of the pandemic, and will result in a lot of damage to the economy, across most sectors. "The challenge, through the economic stimulus measure, is to try to mitigate the impact of the MCO as much as possible, and hopefully get us to a point where production can be restarted across the economy," he said.

On the recently announced RM250bil economic stimulus package, Firas Raad, the World Bank's country manager for Malaysia, who also spoke to reporters during the call, said there are concerns about how much of it actually came from the fiscal coffers. "A large part of it involves withdrawal from retirement accounts, and loan deferments by banks," he said, noting that the amount from the fiscal coffers was not as much as it was built up to be. Secondly, he said, the amount allocated for wage subsidies for the private sector, may not be sufficient to prevent job losses. He added that additional focus may be required for the informal sector or the self-employed, and micro enterprises.

Record also noted that Malaysia was going into the pandemic crisis at a time when it faced revenue pressures due to the crash in crude oil prices. The crude oil price assumption in Budget 2020 was at US\$62 per barrel, and oil prices are not at about US\$30 per barrel. "Malaysia challenge is creating more

space on the operating side to inject cash into the economy, while facing pressure on the revenue side. This is why we saw that a large share of the stimulus package was accounted for by non-fiscal measures," he said.

On concerns about the outlook for Malaysia's credit rating, Record said the shock caused by the pandemic was exceptional, and required an exceptional response. "Worrying about Malaysia's credit rating would not be at the top of the list of priorities right now. Of course, any fiscal spending measures must be executed prudently and in a targeted way - but clearly this is a time for exceptional measures," he said.

On the biggest risks for Malaysia, Firas said this would be a lack of compliance to the MCO, and insufficient resources within the healthcare system to treat all patients. "In this scenario, a prolonged crisis will obviously affect the economy," he said.

On the outlook beyond 2020, Record said depending on how the pandemic played out, its baseline assumption was for a recovery in the fourth quarter of 2020, and for the economy to bounce back in 2021 with a GDP growth of 6.4%. In their lower-case scenario, however, the pandemic continues until the second quarter of 2021, and growth would not be back to full-speed until in 2022.

On a more positive note, Firas noted that Malaysia was no stranger to shocks to its macro economy, having been affected during the Asian Financial Crisis in 1997, the global slowdown in 2001 and the global financial crisis in 2008. "Thanks to its leadership, it was able to surmount these crises, and learnt important lessons about how to protect itself. With the right type of policies, clear thinking and determination, Malaysia can also get over this unusual crisis," he said.

Source: The Star, 1 April 2020

Malaysia approved RM207.9bil Investments in 2019

Malaysia attracted RM207.9bil worth of approved investment into key industries in 2019, but the novel coronavirus (Covid-19) pandemic had clouded its potential in 2020. "Foreign direct investment (FDI) is a long term capital flow", Senior Minister and International Trade and Industry Minister Datuk Seri Mohamed Amin Ali said in a statement. "We trust that the existing foreign companies will continue to weather the storm and retain their investment in the country," he said.

Malaysia kick-started this year with five approved manufacturing and services projects worth RM4.6bil. Most businesses, however have come to a virtual halt since March 2018 with the implementation of the movement control order (MCO) to curb the spread of Covid-19. "While the Covid-19 pandemic has changed the global industrial system the International

Trade and Industry Ministry is committed to ensuring that Malaysia continues to be positioned as an investor-friendly location for long-term growth of both foreign and domestic businesses." Azmin said.

He said the government has been proactive during the MCO in balancing public health and strengthening the economic fundamentals by providing the necessary approval for companies in several economic sectors to operate, subject to strict adherence to health and safety guidelines. "The priority now is not about the number of investors or absolute value if investments but to bring in high value added investments that can help to revive the economy," Azmin said.

He called for closer partnerships between federal, states and local authorities in facilitating investors and in the implementation of approved projects. "All stakeholders need to make the necessary changes and re-engineer processes to deliver more efficient and effective services," he said. "Digitalization and automation is indeed the way forward."

In 2019, a total of RM207.9bil worth of investments were approved in the manufacturing, services and primary industries according to the Malaysia Investment Development Authority. This was 1.7% compared with the amount approved in 2018. The services sector led the way for total investment approved in 2019, up 11.3% from 2018. Domestic direct investment accounted for 60.4% (RM125.5bil) of the total approved investment in 2019. Although FDI made up 39.6% (RM82.4bil) of the total the value of FDI in 2019 had increased by 2.9% from the previous year. Two-thirds of the FDI were contributed by three countries - the US (RM26.8bil), China (RM15.7bil) and Japan (RM12.1bil).

Among notable projects approved last year were the RM10bil project by Intel to bring in its latest advanced assembly and test technology and an investment by a British-based company, Smith + Nephew, to set up its orthopedics manufacturing facility in Penang.

Source: The Star, 2 April 2020

Fitch maintains Long-term Rating, Downgrades Outlook

Fitch Ratings has affirmed Malaysia's long-term foreign-currency issuer default rating (IDR) at "A-". The agency has however revised the outlook from "stable" to "negative". According to a statement by Finance Minister Tengku Datuk Seri Zafrul Tengku Abdul Aziz, yesterday, Fitch has also projected the Malaysian economy to register a growth of 5.8% in 2021. "Globally, countries have responded with substantial fiscal and monetary measures to cushion the economic impact of Covid-19. It has also been observed that the sovereign ratings outlook for several economies, both advanced and emerging, have also been lowered."

MoF said Malaysia has responded to the global health crisis and synchronised worldwide economic shock in a timely, decisive and comprehensive manner. "The recently launched RM260bil economic stimulus package, dubbed Prihatin, had outlined its three main thrusts: "Protect the People, Support Businesses and Strengthen the Economy. Prihatin's public health, fiscal, monetary and financial measures are aimed at protecting lives and vulnerable groups in society, alleviating businesses' cash flow pressure and preserving jobs."

Collectively, MoF said Malaysia's economic stimulus measures are expected to add 2.9 percentage points to its 2020 gross domestic product (GDP), adding that these comprehensive measures would place Malaysia on a stronger footing to benefit from the projected global recovery in 2021. "Despite the sizeable fiscal outlay in the economic stimulus packages, the government's commitment towards fiscal discipline has not wavered. To ensure limited medium-term implication to public finance, measures introduced are one-off, temporary and time bound."

As these measures are non-recurring expenditures, fiscal consolidation efforts will resume once health and economic conditions stabilise. Further supporting this is the government's positive track record of fiscal consolidation where the fiscal deficit has declined by half from -6.7% of GDP in 2009 to -3.4% of GDP in 2019.

MoF added: "The government will continue to focus on governance and structural reforms to place the country on a firmer footing. The government remains committed to a reform agenda ensuring sound governance, strengthening institutions and combating corruption even as it pursues existing initiatives with the establishment of the debt management office and the upcoming enactment of a Fiscal Responsibility Act in 2021. The medium-term fiscal strategy will be enumerated in the fiscal outlook and federal government revenue estimate report that will be issued together with the 2021 Budget in October 2020."

MoF said Malaysia continues to maintain a healthy external position with substantial external assets by banks and corporations, a current account surplus and adequate level of international reserves. "Malaysia's foreign currency external assets continue to exceed its foreign currency external liabilities. As at end-2019, Malaysia's net foreign currency external asset position stood at a sizable RM924bil, as 94.5% of external assets are denominated in foreign currency compared to 41.4% of total external liabilities. Together with the flexible exchange rate, these will continue to serve as important buffers against potential external shocks."

While the Covid-19 crisis poses some risks to financial stability, MoF said Malaysian banks are now much more resilient compared to previous crises.

"In particular, the strong buffers of the banking system that have been built over the years and sound risk management practices are expected to mitigate the impact of any deterioration in credit quality and support continued lending by banks to the economy. Notably, excess capital buffers of banks stand at RM121bil, more than three times the buffer during the 2008 / 2009 Global Financial Crisis. Net impairments remain low at only 1% of total banking system loans. The banking industry's liquidity coverage ratio, at 148%, stands well above the minimum requirement of 100%."

MoF said these buffers, along with sound and prudential risk management practices, place banks in a good position to support lending activities and the overall Malaysian economy.

Source: The Star, 10 April 2020

Soft Rebound in 2021

A rebound in Malaysia's economy is more than likely by next year, but to hit a gross domestic product (GDP) growth of 9% may seem far-fetched. Economists remained cautious about the recovery post-Coronavirus diseases (Covid-19) outbreak and the movement control order (MCO). They agreed that International Monetary Fund (IMF) was too optimistic. In its World Economic Outlook report published on Tuesday, the IMF projected a rebound in the country's GDP growth on the contraction of 1.7% this year to a growth of 9% next year. This is also higher than its global gross domestic product (GDP) growth estimate of 5.8% in 2021, from -3% this year.

The projections were based on the assumptions that the pandemics would fade in the second half of this year and disruptions concentrated in the second quarter for most countries. The IMF pointed out that there is extreme uncertainty around the strength of the recovery, depending on the pathway of the pandemic and the severity of the associated economic and financial consequences.

Alliance Bank chief economist Manokaran Mottain said the country is in a different scenario compared with the 2008 to 2009 Global Financial Crisis (GFC). "We've recovered quite well in 2010 after the GFC because we spent a lot of money then. In this case, a lot of businesses has been hurt and whatever stimulus packages that were provided, it will take time for them to really digest and rebound to pre-Covid times" he said.

Manokaran estimated a 2.5% contraction in GDP this year with four quarters of negative growth followed by a soft recovery next year at 4% to 5%. He also expected a larger unemployment rate in the range of 4% to 5%, worse than the Asian Financial Crisis 1998 and the GFC, attributing this to bleeding bottom lines especially from the small medium enterprise (SME's) and the unprecedented MCO. He noted that Covid-19 and the MCO had moved a huge chunk of business operations online, which could be a new normal, allowing corporates to cut operating costs.

"If you look at China, among the sectors that recovered immediately were e-commerce, Internet of things and artificial intelligence. Indirectly, most economies will be pushed to consider IR4.0 type of businesses," he said.

UOB Malaysia senior economist Julia Goh said the GDP is expected to rebound to 4.3% in 2021 from a 3.5% contraction this year. "We keep a more cautious stance for now given that broad risk are tilted to the downside. We think there is still much uncertainty about the strength of recovery post-pandemic," she said, adding that all main sectors should drive the rebound in 2021, with services and manufacturing taking the lead as they were among the hardest hit sectors.

MIDF head of research Imran Yassin Yusof said there would be lingering fear of Covid-19 post-MCO and it would wane in the second half when economic activities normalise. "We expect domestic consumption post-MCO to provide support (to the GDP) and this should also support the retail sector. Other sectors such as construction and manufacturing which were stalled due to the MCO will also return," he said.

Meanwhile, Moody's Investors Service - one of the world's Big Three rating agencies - said the government's stimulus packages worth RM260bil will not be able to rescue the country from a sharp economic slowdown in 2020. It forecast that the country's economic growth could slow to between 0% and 1% this year, before rebounding to around 5% in 2021. For comparison, Malaysia recorded a 4.3% growth in 2019, the weakest expansion since 2009.

"The broadening of Covid-19 into a global pandemic, coupled with temporary but severe movement restrictions and closure of non-essential businesses will sharply reduce economic growth. Export-oriented and tourism sectors, including the electrical and electronics industry which accounts for around 30% of the country's goods and services exports, will be hit hard by weak global demand, while domestic services will be constrained for as long as movement restrictions are in place," it said yesterday.

Malaysia's exports were forecast to post their worst performance since 2009 with a significant contraction, although a sharp rebound is expected next year. Moody's sovereign risk group assistant vice-president and analyst Christian Fang pointed out that global demand shock and lower oil prices would weight on all major export categories in 2020. However, she said gas export are expected to increase. On the bright side, Fang said that growth potential in 2020 is still higher than similarly rated A3 peers. In addition, the country's medium-term growth prospects remain robust.

He also said the government's stimulus measures could shore up domestic demand amid major headwinds, although it would come at a cost - rising fiscal consolidation challenges over the next few years.

Fang appointed out that the country's fiscal consolidation efforts have been off track since 2018. "Fiscal and debt metrics will deteriorate this year because of weak growth, lower oil prices and fiscal stimulus to support the economy," he said. Moody's expected Malaysia's fiscal deficit to hit around 4% to 4.5% of the gross domestic product (GDP) in 2020, up from 3.4% in 2019. "This will result in the government debt burden rising to close to 60% of GDP in 2020, above the 36% median for A3-rated peers and the government self-imposed ceiling of 55% which applies only to its direct debt. Our estimate assumes that the government reallocates part of its expenditures in its initial 2020 budget, including fuel subsidies to the economic stimulus. The one off temporary nature of the stimulus with only one-tenth of the package involving direct spending by the government, limits the scope for substantial and sustained fiscal slippage while providing some support for domestic demand," stated the rating agency.

Looking ahead, Moody's cautioned that Malaysia's fiscal and credit profile remains susceptible to a sustained period of weak global demand and oil prices. This is further worsened by the country's revenue base that has narrowed and its dependence on oil and gas revenue has increased over the past two year, following the abolishment of the goods and services tax (GST) by the former Pakatan Harapan government.

Source: The Star, 16 April 2020

No Change in Bank Negara's Growth

Forecast for 2020

Bank Negara has kept its 2020 economic growth forecast for Malaysia unchanged, even though experts think that the economy will be hit further as a result of the recent two-week extension of the Movement Control Order (MCO). Following an engagement session with the central bank on April 15, Maybank IB Research said that official real gross domestic product (GDP) growth forecast announced on April 3 remains at -2% to 0.5% for now.

Bank Negara's growth forecast has assumed the MCO to end on April 14, the economy to operate at 45% capacity amid MCO as well as the continuation of measures on social distancing, limited mobility and travel post-MCO until the third quarter of 2020. The forecast did not factor in the MCO extension until April 28. For context, Prime Minister Tan Sri Muhyiddin Yassin announced the extension of the movement restriction on April 10, a week after the central bank issued its GDP growth forecast for 2020.

"Macroeconomic forecasts will be fluid, critically depending on the evolving Covid-19 pandemic and public health policies, but Bank Negara maintains its GDP trajectory of economic recession in 2020 and recovery in 2021. We expect the economy to shrink 3.3% this year," Maybank IB Research said in a note yesterday.

Meanwhile, in a separate note, Hong Leong Investment Bank (HLIB) Research said that the latest external and domestic developments pose downside risks to Bank Negara's forecast. These include the two-week MCO extension and the latest projection by the International Monetary Fund of a global growth contraction by 3% in 2020. "Nevertheless, Bank Negara reiterated their expectation for the economy to rebound in 2021, in tandem with other multinational forecasts for the global economy recovery to take place in 2021 as well," stated the research house.

HLIB Research further added that Bank Negara is confident of the country's current account balance to remain in surplus position. "Despite the weaker global environment, Bank Negara opines that the contraction in exports will be offset by a drop in total imports due to weak domestic demand. This is also in line with Bank Negara's prognosis of weak investment prospects as they shared that foreign firms who had foreign direct investment approvals in 2019 are now reluctant to undertake capacity expansion plans," it said.

Moving forward, Maybank IB Research believes that Bank Negara will ease its monetary policy further. It expects the central bank to cut the Overnight Policy Rate (OPR) by another 50 basis points (bps) to 2%. Meanwhile, the Statutory Reserve Requirement (SRR) ratio is projected to be slashed to 1% from the current 2%. Recall that Bank Negara has lowered the OPR three times since May 2019 from 3.25% to 2.5% currently. On the other hand, the SRR has been cut by 150 basis points from 3.5% to 2% since November 16, 2019.

Commenting on the federal government's fiscal situation, Maybank IB Research said that the budget deficit will increase as a result of the stimulus packages and revenue shortfalls amid the Covid-19 pandemic. However, it stressed that the deviation from the targeted medium-term path of fiscal consolidation is temporary and is due to the impact of the global Covid-19 pandemic and not due to domestic fundamental factors. Furthermore, the stimulus measures are temporary one-off and thus non-recurring stimulus in terms of additional expenditures and tax incentives.

Source: StarBiz, 17 April 2020

Battered Quarter

Malaysia is expected to report its first quarterly economic contraction in 42 quarters or the first since the global financial crisis today. Economists told StarBiz that the weak private consumption and trade activities, battered by the Covid-19 pandemic and the movement control order (MCO), may have likely pushed the domestic economy into the negative territory in the first quarter of 2020. They also warned that the growth contraction could turn deeper in the second quarter. With two consecutive quarters of growth contractions, Malaysia would technically enter a recession for the first time since 2009.

Based on a median forecast of 12 economists polled by Reuters, the country's gross domestic product (GDP) is projected to decline by 1.5% in January-March 2020 from a year earlier. Individual forecasts ranged from GDP growth of 0.8% to a decline of 4.2%. The latest time the economy dived into a negative territory was in the third quarter of 2009, with a GDP contraction of 1.2%.

According to Alliance Bank chief economist Manokaran Mottain, the GDP is likely to contract by 3.5% in the first quarter, compared with growth of 3.6% in the fourth quarter of 2019. The country's economic performance was hit doubly hard in the first quarter due to the MCO that began on March 18 and the plunge in global crude oil prices. "The beginning of the Covid-19 outbreak early of this year had dampened business and consumer sentiment, with a huge impact on trade and investment activities. The manufacturing sectors are partially affected due to Covid-19 and MCO. The mining sector, which is already declining since last year, will face even greater challenges due to the plunge in oil prices," he said.

On the outlook for the April-June period, Manokaran said the economy could continue to decline 3.5% to 4% more. "It will be mainly dragged by private consumption (represents around 60% of total GDP), due to escalation of Covid-19 cases globally and unprecedented containment measures taken by respective governments. Pre-Raya festive spending will be muted, which many retail businesses are highly dependent for their survival," he added.

Meanwhile, Bloomberg economist for Asean Tamara Mast Henderson said Malaysia's economy may have contracted by 3.3% in the first quarter. "Merchandise exports picked up in the first quarter, but tourism related sectors slumped as restrictions by China and other countries to combat the coronavirus made travel difficult. Household spending growth likely slowed sharply, no longer supported by a favorable base effect. What's more, the government locked down the economy in mid-March," she said.

On the investments into the country, Henderson said Malaysia's political tensions, culminating in the abrupt resignation of former Prime Minister Tun Dr. Mahathir Mohamad in February, have added to the negative investment sentiment. "Investment was already contracting throughout 2019. The oil price war and sell-off across financial markets in the first quarter likely deepened the decline. There were portfolio outflows of more than US\$5.6bil during the period," she said.

Despite the bleak consensus projection for the first quarter, Socio-Economic Research Centre executive director Lee Heng Guie expected the GDP growth to remain in the positive territory. "We estimate GDP to grow marginally by 0.5% in the first quarter, a sharp slowdown from 3.6% in the preceding quarter. The economy continued its downward growth trajectory in the first quarter, due to a sharp pull back in domestic demand and subdued exports. Amid cautious sentiments, house-

hold spending was restricted in March due to the MCO from March 18," he said.

Lee pointed out that all economic sectors were impacted in the January-March period. Slower external and domestic demand as well as partial production disruption from the first phase of MCO have dampened the manufacturing sector, while the construction sector contracted sharply across the board covering residential, non-residential and civil engineering.

"The services sector pulled back sharply to a 2.3% growth in the first quarter from 6.1% in fourth quarter of 2019, owing to declines in demand of services in restaurants and hotels, communication and transportation and wholesale and retail trade. This reflected partly in the first phase of MCO," he said.

Meanwhile, the agriculture sector is estimated to decline largely due to lower crude palm oil production. Commenting on the second quarter, Lee said that the economy "cannot avoid suffering an economic contraction". He expected the GDP to decline by between 8.8% and 11% in the second quarter. "This reflects the full impact of the second, third and fourth phases of MCO, amid the mitigating impact of the Prihatin economic stimulus package," he said.

Source: The Star, 13 May 2020

Economic Recovery Seen in Second Half

It was somewhat a positive surprise for Malaysia as the economy narrowly escaped a contraction in the first quarter (Q1) of 2020 with 0.7% growth, beating worse market prediction earlier. The much-unexpected relief, however could well be short-lived. Bank Negara governor Datuk Nor Shamsiah Mohd Yunus, who is usually selective with her words, has warned that the economy would likely experience "quite a deep" contraction on the second quarter. The last time the economy dived into a negative territory was in Q3 2009, with a gross domestic product contraction of 1.1%. Speaking at a virtual media briefing, she also said that the country's labor market conditions are expected to worsen in the April-June 2020 period, with the unemployment rate exceeding about 4%.

As for the ringgit, which has depreciated by 4.9% against the US dollar in Q1, exchange rate volatility is expected to continue, moving forward, as uncertainties persist in the near term. However, on the bright side, Nor Shamsiah said the economy could bottom out in Q2 this year before recovering from Q3 onwards.

The key catalysts would be gradual lifting of containment measure as pandemic risk subsides, significant economic policy stimulus as well as gradual normalisation of economic activity and financial conditions. Nor Shamsiah also said, that the country's unemployment could improve in the second half of the year as rehiring picked up on gradual economic recovery.

On inflationary pressures, she pointed out that it is expected to be muted in 2020. "This is because the share of consumer items recording price declines remained at around 20%. Demand conditions are also expected to gradually improve as economic activity resumes," she said.

Considering the volume of uncertainties at the moment, Nor Shamsiah said Bank Negara has left its growth forecast for 2020 unchanged at -2% to 0.5%. "We will provide a revised forecast in the second half of the year once there is more clarity in the data and outlook, especially in our major trading partners. Since our last forecast made on April 3, much has changed in terms of assumption, the MCO (movement control order) was extended for four weeks to almost two months now. We are also in relatively early stages of reopening the economy under the conditional MCO with implementation issues being resolved as industries prepare and adjust to new standard operating procedures," she said.

The 0.7% year-on-year economic growth in Q1, albeit a sharp, moderation from the 3.6% in Q4 2019, came as a surprise as economists were expecting a 1.5% decline, based on a median forecast of 12 economists polled by Reuters. On a quarter-on-quarter seasonally-adjusted-basis, the economy contracted by 2% in Q1 this year. The Q1 sharp growth moderation mainly reflected the implementation of the MCO.

After a steady expansion in the first two months of the quarter, economic activity came to a sharp downshift with the implementation of the MCO on March 18. On the supply side, all economic sectors took a major hit, with either a contraction or slower pace of growth. The services sector, which contributes more than half of the economic value, only grew by 3.1% in Q1, as compared with 6.4% in Q1 last year.

Nor Shamsiah was also asked whether the six-month loan moratorium, which was part of the second stimulus package, will be extended. In response to this, she said: "The objective of the moratorium is to provide temporary cash flow relief to borrowers during the crisis. With the gradual resumption of the economic activities, what is important is for the banks to support the economic recovery by providing continued access to credit by households and businesses," she said.

On Malaysia's GDP performance in the first quarter, OCBC Bank economist Wellian Wiranto said it appeared that the market had "underestimated the strength of the consumers to power on." To be sure, the momentum did weaken considerably in Q1. In seasonally-adjusted sequential terms, growth shrank by 2% in Q1. This is the first time it has dipped into an outright contraction mode in at least a decade. Looking at some of the sub-components of the economy, any sense of joy would look terribly out of place, as well," he said.

Going into Q2, Wellian said the consumer's strength would have been tested to the brink, bearing the brunt of the MCO partial lockdown measures and looming job concerns. "Still there is enough juice from Q1 for any expectation for further overnight policy rate cuts from Bank Negara in the immediate months to be more muted for now. If there is any indication that growth momentum would suffer more deeply despite the easing of the MCO, Bank Negara would not be hesitant to cut the rate further below the now-historic low to 1.5%," he said.

MIDF Research also concurred that there would be "more pain ahead" for the Malaysian economy. "Moving forward, we foresee domestic demand to continue trending downward, especially with multiple extension of the MCO in Q2. Looking ahead into Q2, the economy is anticipated to contract on an annual basis with the extension of MCO in Malaysia and imposition of lockdown in other key economies globally. We now expect the GDP to contract by 2.1% in 2020, a downward revision from 1% growth initially expected," it said in a note.

Source: The Star, 14 May 2020

Government Plans for New Normal

The government is in the midst of formulating longer term policy measures for the country's economy to transit to the new normal of doing things, said Minister in the Prime Minister's Department Datuk Seri Mustapa Mohamed. "These are short, medium and long term plans (that are being thought of) for the country. A number of short term plans have been announced by the Finance Ministry and they are now working on some medium term plans which I am also a part of," Mustapa said in his closing address at the "Growing Business Against The Tides of disruptions" webinar.

"My focus will be on the longer term plans for the country. Some of these are the structural changes that are happening, such as e-learning; some people in the rural areas don't have laptops nor smartphones so they don't have access to it. These are issues which have surfaced and it is a structural problem which needs to be addressed by the government with high priority," he added.

These long term plans will be announced by the government in the next three to four months, Mustapa said. He said that the government had learnt much through the Covid-19 crisis and acknowledge that the country is now in the midst of a "very deep recession."

He said the Economic Action Council had recently been upgraded to a decision making body. "The priority now is to ensure that companies and the various sectors of the Malaysian economy respond quickly to the decision taken by the government," he said. "We need patience, agility and to respond very quickly to this changing landscape based on data and statistics with lots of engagements," he added.

Mustapa said other areas that will be addressed by the government included structural reforms in the area of foreign labour. "This needs a major redo for this country. In the last few weeks a few challenges have been exposed, including accommodation for these foreign workers. We have other issues such as hotels that are closing their business and the tourism industry," he said.

Mustapa also said that there has been a re-definition of work now from the typical 9-5pm job towards the gig economy and the government will also look into this area. He said all these structural changes in the economy would be factored into the long term plans that his ministry is formulating for the country.

"Farmers have become more digital while I have met some people in the logistics companies and they are experiencing good business. As a country, we need to take into account all these structural changes and factor into our long term planning," he said. "In other words, what was relevant a few months ago, say in January and February of this year is not relevant anymore moving forward," he added.

Mustapa noted that foreign direct investments (FDIs) and domestic investments continue to be a very important pillar of growth for the country. "We need to ensure that domestic investors continue to put money into this country.

There must be confidence in Malaysia and this is important: consumer, business and foreign investors' confidence. Malaysian Investment Development Authority will come up with new strategies moving forward to ensure we continue to maintain our position in the key export sectors," he said.

These key export sectors include in the area of electrical and electronics (E&E) exports and the manufacturing sector. Meanwhile, Malaysia External Trade Development Corp CEO Wan Latiff Wan Musa said that he believes the global supply chain will remain intact despite the Covid-19 pandemic.

"I don't think there is any single country that can produce everything. Whether we like it or not we would still have to depend on each other. International trade is about leveraging on the respective comparative advantaged of (different) economies," he said.

He said countries would need various raw materials, technology, knowledge or labour to produce a product that could not only be sourced from a sole country. "The global supply chain will remain intact more so especially for complex supply chains such as the E&E industry," Wan Latiff said.

Source: The Star, 29 May 2020

SEMICONDUCTOR INDUSTRY NEWS

Global Semicon Sales See 7% Fall

Global sales of semiconductor equipment fell 7% to US\$59.80bil in 2019 from an all-time high of US\$64.50bil a year ago, according to latest data from a United States-based industry group. The Semiconductor Equipment Industry (SEMI) reported yesterday Taiwan claimed the largest market for new semiconductor equipment last year with sales of US\$17.12bil.

Taiwan's 68% growth surge dislodged South Korea from the top spot while China maintained its position as the second-largest equipment market with sales of US\$13.45bil. In third spot was South Korea at US\$9.97bil after receipts fell 44%. "While the new equipment markets in Japan, Europe and the rest of the world contracted, North American equipment sales jumped 40% to US\$8.15bil in 2019, the region's third consecutive annual increase," it said.

Earlier in April, the Semiconductor Industry Association (SIA) announced that worldwide sales of semiconductors fell by 2.4% to US\$34.50bil in February from US\$35.40bil in January. While the February sales were lower on month, this was a 5% increase from February 2019's total of US\$32.90bil. "Global semiconductor sales in February were solid overall, outpacing sales from last February, but month-to-month demand in the China market slipped significantly and the full impact of the Covid-19 pandemic on the global market has yet to be captured in available sales numbers," said SIA president and CEO John Neuffer. "Semiconductors underpin our economy, infrastructure and national security, and they are at the heart of many advanced technologies being used to find treatments, care for patients, and help people work and study from home," he said.

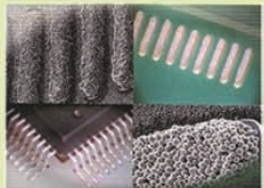
Regionally, month-on-month sales increased in Japan by 6.9% and Europe 2.4%, but decreased in Asia Pacific/All others (-1.2%), the Americas (-1.4%), and China (-7.5%). SEMI represents the worldwide electronics product design and manufacturing supply chain and the forecast provides an outlook for the global chip industry. The SIA represents semiconductor manufacturers, designers, and researchers, with members accounting for approximately 95% of US semiconductor company sales.

Source: The Star, 16 April 2020

TSMC's Steep Profit Surge

Taiwan Semiconductor Manufacturing Co (TSMC) chipmaker to Apple Inc and Huawei Technologies Co, has reported a 91% rise in earnings after demand for advanced silicon remained steady during the pandemic. The world's largest contract chipmaker reported net income of 116.99 billion New Taiwanese dollars (US\$3.9bil) for the three months ended March, compared to 61.4 billion Taiwanese dollars a year earlier.

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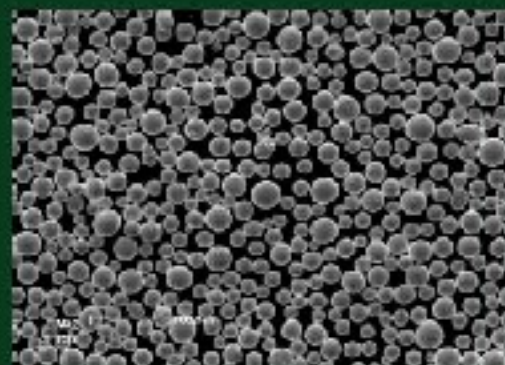
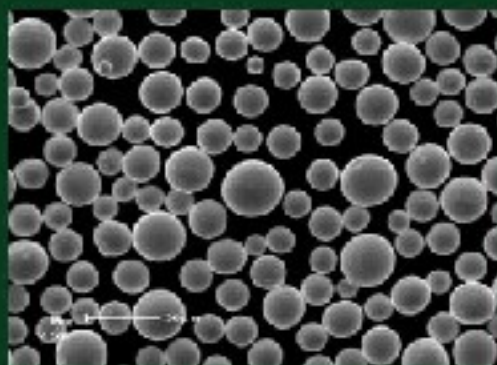
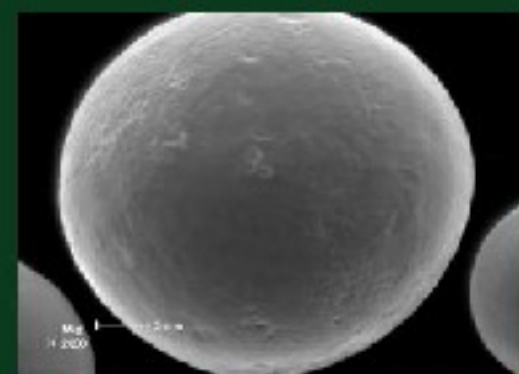
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About Us

RIAN RESOURCES SDN. BHD. Is established in September 2017 in Johor, Malaysia, due to demand on secondary tin refining. The management and production team have long term experiences in the tin industry. We believe in having good production systems and compliances such as ISO 9001, ISO 14000 and CFSI. Our future plan is to have capability to smelter and refine 4nine tin.

Quality Policy

Rian Resources Sdn Bhd shall always meet and exceed our customer's tin products requirements and expectations.

Conflict Free Mineral Policy

Rian Resources Sdn. Bhd. shall always use and process tin products from CFSI certified tin smelters:

- A. Being compliance at all times with 3TG conflict material as per section 1502 of the Dodd Frank Wall Street reform and consumer protection act of 2010. In particular origin from the Democratic Republic of Congo (DRC) and its adjoining countries.
- B. Being diligent to ensure the tin products are traceable to CFSI certified tin smelters in accordance with the "OECD Due Diligence for Responsible Supply Chains of Mineral from Conflict-Affected and High Risk Areas" to establish conflict minerals management mechanism.
- C. We promise NOT to process 3TG that directly or indirectly benefit armed groups that are perpetrators of human rights abuse from the Democratic Republic of Congo (DRC). To other origins, we'll require all necessary documentation certificates complying to EICC-GeSI conflict free rules.



The robust results from TSMC, a barometer for the tech industry thanks to its heft and place in the supply chain, underscore resilient demand for the semiconductors in smart phones and datacenters that are hosting an unprecedented surge in online activity globally.

Taiwan's largest company commands a growing position in the production of the high-end chips needed in server capacity for everything from gaming to video streaming. The company also makes semiconductors for laptops, phones and other devices that people are buying for home offices. TSMC's revenue rose 42% in the first quarter to 310.6 billion Taiwanese dollars, based on previously reported monthly numbers. That's despite top customer Apple Inc withdrawing its revenue outlook for the current quarter because of work slowdowns and lower demand in China, its biggest international market. But official data showed iPhone shipments in China jumped 19% in March, suggesting demand was bouncing back in the world's top smartphone arena, at least compared with the previous-generation iPhone.

In the longer term, TSMC like other corporations will have to contend with global economic turmoil and fallout from the US-China trade war. Washington is said to be considering curbs on TSMC's sales to Huawei, which relies on the chipmaker to produce its most advanced silicon. China's biggest tech company, which the US accuses of aiding Beijing in espionage, accounts for about 10% of the Taiwanese chipmaker's revenue. TSMC chairman Mark Lui has downplayed the risk to its business, saying growth will still come from a global 5G rollout. The company is likely to cut its 2020 sales outlook to reflect competition from Samsung Electronics Co in contract chipmaking and potentially stricter US licensing requirements, Credit Suisse analysts Randy Abrams and Haas Liu wrote April 13. TSMC said January revenue would grow more than 17% this year.

Source: StarBiz, 17 April 2020

Tech Firms Will Not Rush to Invest After MCO is Lifted

Local sensor and semiconductor test equipment manufacturers will remain cautious in regards to their business recovery plans even after the Movement Control Order (MCO) is lifted. Globetronics Technology Bhd chief executive officer Datuk Heng Huck Lee told StarBiz that even after the MCO is lifted in Malaysia, it does not mean that the group will rush to invest for new volume forecast to drive growth.

"The other parts of the globe may not be ready to really open up and that will affect orders for smart devices, sensors, and semiconductor test-equipment. China for example, is now ready to produce, but its ability to get its supply of raw materials from non-China manufacturers may become the new constraints.

The lock down and economic uncertainties will also impact the global demand for consumer electronic products," Heng added.

According to Heng, there is high possibility of the global economy getting entering into depression. "We hope it will be a V-shaped recovery, which is characterised by a sharp decline and by a quick and sustained recovery." Heng added. The group will continue to invest in design and develop activities so that it can continue to fulfill the commitments of the new projects, said Heng. According to Heng, the group will discuss with new customers before committing itself to new capital expenditure for the second quarter of 2020.

"The group plans to rebook into the current supply chain for raw materials and supporting tools. We will enhance our IT infrastructure and technology that will enable us to leverage on virtual conferencing. We shall also accelerate our plan to expand our Industrial 4.0 initiatives by making further investments into automation and internet of things (IoT) to reduce our dependency on the workforce. Our investment into IoT connectivity has paid off as it help us to maintain quality and stable operation with a skeletal workforce during this period." Heng added.

On its first quarter results, Heng said that thanks to the efforts of its committed staff, the group managed to achieve its targets. "We will postpone our first quarter results announcement to May 20 due to the MCO," he said.

Pentamaster Corp Bhd chairman CB Chuah said he expects to see massive unemployment around the world after the global lockdown, which will slash the purchasing power of consumers. "During this slow period, the group will focus on design and development activities to develop the latest smart sensor technology testing. However, will still have projects with our key customers and we will invest accordingly to meet the needs of the projects," Chuah added.

Chuah said there will be a need to establish an alternative supply hub. "From the lock down, we learn that we can't just rely on local supply chain alone to deliver. There has to be an alternative site for us to source raw materials and standard components. We will also explore new technologies to make semiconductor test equipment that consume less raw materials or with design that can easily switch to different make of standard components," he said.

Elsoft Research Bhd chief executive officer CE Tan said that the group's business recovery plan will depend very much on the economic scenario around the globe. "But we can definitely expect to see a global slowdown in the demand for consumer goods. However, we will continue to allocate for our design and development expenditure so that our projects with regular customers can proceed," Tan added.

Tan said the group is enhancing its IT development tools to allow engineers to work at office as well as work from home. "We have received more new project enquiries from customers, in line with our diversification plans. We will also making a new series of embedded controller for the medical sector to drive business growth. The medical sector is one the few areas where we believe the demand will be constant even if the world will be in a depression," he added.

MMS Ventures Bhd managing director TK Sia said the group will definitely explore new business growth drivers. "Even though the world will be in a depression, there will be areas like the automotive industry that we can looking at. The automotive sector will definitely help to contribute to our revenue over the next five years. It is a very competitive market, but we expect our market share to grow gradually because of the market size. However, we will have to be cautious with making new investments," he added.

An industry source shared that during the MCO, some players have experienced delays in fulfilling orders due to MCO mandates, such as operating with 50% workforce and shorter operation hours from 8am to 8pm, as compared to the usual 24 hours. The source noted that while the demand and order book for semiconductor and electronic manufacturing services (EMS) industry remains, it was not on par to the forecasted demand prior the Covid-19 outbreak.

"The semiconductor industry growth this year was expected to be better than last year, but there is no use having strong demand when manufacturers are unable to deliver. Some analysts forecast business as usual for the industry after six to 12 months, but the impact of Covid-19 to the macro economy is great. With so much uncertainty, there is no telling how long it will take for business to be as usual. What is more important now is to ensure that businesses survive and we remain in good health," the source said.

Source: StarBiz, 20 April 2020

Bosch Plans New Plant in Penang

Bosch, a global supplier of technology and services, plans to build a manufacturing facility in Penang focusing on semiconductor components and sensor testing.

The Germany-based company said it had signed a sales and purchase agreement (SPA) with Penang Development Corp for a piece of land at the Batu Kawan Industrial Park. Bosch said construction of the plant was scheduled to begin next year with production expected to start in 2023.

More than 400 associates are expected to work at the new facility, which will primarily focus on the final testing of components manufactured at Bosch Automotive Electronics' fab in Dresden, Germany.

These components will include semiconductors used in airbag systems or engine control units. The plant will also house research and design, and training facilities. "With the long-term forecasts for growth of semiconductor component quantities, coupled with the front-end production in Bosch's Dresden facility, capacity expansion is required for the back-end production, which is back-end production, which is the final testing phase of semi-conductors and sensors. This new site is also intended to strengthen the matured ecosystem for the semiconductor industry in Penang," said Bosch Malaysia managing director Simon Song.

He said the semiconductor business at Bosch was part of the Automotive Electronics division within the mobility solutions business sector, with its headquarters located in Reutlingen, Germany.

Bosch Automotive Electronics is already testing components in Reutlingen and Suzhou, China. Malaysian Investment Development Authority (Mida) chief executive officer Datuk Azman Mahmud said Bosch's commitment in complementing Malaysia's electrical and electronics ecosystems was a reflection of its continued confidence in the country as preferred destination for long-term growth. "This project will also serve as a catalyst in developing a higher level of expertise through the adoption of Industry 4.0 and production automation in the industry," he said yesterday.

Bosch Malaysia said the final testing facility in Penang would be the first of its kind for the company in Southeast Asia. Malaysia, especially Penang, had the ability to manufacture economically, even under cost pressure, it said. It added that the proximity to business partners was another advantage.

According to statistics, Malaysia contributes 10 per cent if back-end semiconductor output globally, among which eight per cent is contributed by Penang. "The state government is pleased to further strengthen our relationship with Bosch, one of the eight pioneers that charted Penang's industrialisation five decades ago," said Penang Chief Minister Chow Kon Yew.

Penang is has been home to three existing Bosch manufacturing sites and research and development offices since 1972. They are Robert Bosch (M) Sdn Bhd, Robert Bosch Automotive Steering Sdn Bhd.

Source: New Straits Times, 4 June 2020

Strong Growth Seen for Global Fabrication Equipment Spending in 2021

US-based Semiconductor Equipment Manufacturers Industry (Semi) sees strong growth ahead for global fabrication equipment spending in 2021 as it recovers from the trough this year following the Covid-19 pandemic fallout. It said on yesterday it expects a 24% growth in spending to a record US\$67.7bil in 2021, which is 10% higher than the previously forecast US\$65.7bil, and all product segments promising solid growth rates.

According to the 2Q 2020 update of the Semi World Fab Forecast report, memory fabs will lead worldwide semiconductor segments with US\$30bil in equipment spending, while leading-edge logic and foundry is expected to rank second with US\$29bil in investments.

"The 3D NAND memory sub-segment will help power the spending spree with a 30% jump in investments this year before tacking on 17% growth in 2021. DRAM fab investments will surge 50% next year after declining 11% in 2020, and fab spending on logic and foundry, mainly leading edge, will trace a similar but more muted trajectory, rising 16% in 2021 after an 11% drop this year," it said.

Semi said some segments will see lower fab equipment spending but impressive change rates nonetheless. It pointed out image sensors would see a 60% increase in 2020 and add a 36% surge in 2021. Analog and mixed signal will grow by 40% in 2020 and 13% in 2021. Power-related devices are forecast to grow by 16 in 2020 and surge 67% in 2021.

The Semi World Fab Forecast report also shows the worldwide fab equipment spending trough in 2020 shifting from the first to the second quarter. A review of quarter-over-quarter (q-o-q) spending trends reveals the impact of the Covid-19 pandemic over the course of 2020. Global fab equipment spending q-o-q fell by 15% in the first quarter of 2020 - performance that was stronger than the 26% decline forecast in February.

"In March, some companies appeared to build up safety stock as a countermeasure to the spreading virus as shelter-in-place orders emptied offices, malls and schools worldwide. As the contagion grew, demand for IT and electronic products such as notebooks, game consoles and healthcare applications surged. Some stockpiling is expected to stretch into the second quarter, fuelled by fear of restrictions - scheduled to take effect in late June - on semiconductor equipment sold to China. While the World Fab Forecast report predicts rising investments in the second half of 2020, the year will mark the second half of 2020, the year will mark the second consecutive yearly drop in fab equipment spending - 4% this year after an 8% dip in 2019," it said.

ELECTRICAL & ELECTRONIC INDUSTRY NEWS

However, Semi cautioned that despite the bullish projections, threats from the pandemic still lurk. It said pandemic-related layoffs, with more than 40 million workers idled in the United States alone (as of May), and company closures will trigger ripple effects in consumer markets and discretionary spending. For instance, rising unemployment will lead to falling smartphone and new car sales.

Source: New Star, 11 June 2020

Mida Says Timely for E&E Firms to Access Supply Chain

It is timely and critical for electrical and electronics (E&E) companies to assess and consider diversifying their supply chain, said the Malaysian Investment Development Authority (Mida). Mida Chief Executive Officer, Datuk Azman Mahmud further suggested that the companies leverage new opportunities in light of the changes in market demand following the Covid-19 pandemic. He stressed that an assessment was necessary in the long run to improve operating models and mitigate future failures or disruptions through an effective contingency plan. "We would like to encourage all E&E companies, particularly the small and medium enterprises, to take full advantage of the facilitation offered by the government and we look forward to having more E&E companies enhancing their operations in Malaysia, especially those that are well engaged in 'light-house' operations. Briefly, lighthouse is a concept of modeling companies that have embraced digital manufacturing and globalisation 4.0 in their business model and their entire supply chain," he said.

He said this in a webinar titled, "E&E Industry Update Amidst Covid-19 Pandemic" organised by MIDA and Semicon South-East Asia yesterday. According to Azman, Mida is targeting multinational corporations as well as big local companies to be the anchors in guiding the selected vendors into the new venture, given that the end-to-end value chain is increasingly being adopted globally. "To date, Mida is engaging 17 companies from manufacturing and services sectors namely E&E, Chemical and Advanced Materials, Transport, Machinery and Metal, Food Technology and Green Technology to participate in the Lighthouse Programme. We should like to have more local companies be integrated into lighthouse operations by engaging in innovative activities such as the adoption of automation and digitalisation of business processes," he added.

He pointed out that government facilities such as accelerated capital allowances over a two-year period on machinery and equipment including information and communications technology, Industry 4.0 incentive, intervention fund, and high impact fund were already in place. "Malaysia is well-positioned to weather the storm and emerge stronger from this pandemic and our country is resilient despite multiple changes faced by the global economy, due to its diversified economic structure," he said.

Source: The Star, 5 June 2020

Asia Electronics Sector in for a Good Year

Global trade data in the Covid-19 era has been generally abysmal, but look a little and the electronics sector that fires Asia's trade engines could be headed for a pretty good year.

In South Korea, semiconductor exports rose in May and imports of equipment used in producing semiconductors surged 168%, trade ministry data show. Taiwan's electronic-component exports, which include chips, grew 13.2% in May to US\$10.2bil, even as total exports fell 2% from a year earlier.

The electronics industry is holding up relatively well amid the pandemic as companies adopt new technologies - including 5G equipment and automation tools - that make it easier for employees to work remotely. A sustainable boost will depend on whether consumers return with similar vigor, and whether other factors such as US-China tensions don't interfere with digital demand and supply. "The tech industry seems to have decoupled from the overall economy somewhat, as the tech industry is still growing well and has been "relatively immune to Covid-19," Mark Liu, chairman of Taiwan Semiconductor Manufacturing Co, said at a shareholder meeting June 9.

TSMC, the main chipmaker for Apple Inc and Huawei Technologies Co, still planned to spend as much as US\$16bil on capacity upgrades and technology this year, and expected revenue gains in the mid to high-teens, Liu said. Covid-19 has helped drive some budding technologies related to remote work and education and social distancing, he added. TSMC shares have risen 25% since their lowest close for the year on March 19, less than the 30% gain in Taiwan's benchmark Taiex stock index in that time. TSMC shares were down 2.2% as of 1:32pm yesterday, compared to a 0.98% drop in the Taiex.

Amid generally awful export figures from the region, "the one bright spot is semiconductors," said Trinh Nguyen, a senior economist at Natixis SA in Hong Kong. "A lot of this reflects the product cycle and also the global lockdown and suppression that favour the "digitalisation" of economic activities, driving demand for electronic goods like chips. For economies like South Korea and Taiwan that rely on tech exports, "the upturn in demand for electronics has been a pillar of support amid the coronavirus pandemic," said Lloyd Chan, an economist at Oxford Economics Ltd.

However, the improvement in the tech sector won't be able to offset significant demand weakness in non-electronic exports," he said adding that even the surge in PC demand "could be a one-off," attributable to the sudden shift to telecommuting during the pandemic.

Still, it helps that some of Asia's most tech-focused economies have had relative success in containing the virus: Taiwan has reported just seven virus deaths, South Korea flattened its curve fairly early and Singapore's fatality rate is among the world's lowest.

Source: The Star, 16 June 2020

SEMI Upbeat about Malaysia's E&E Sector

SEMI Southeast Asia believed that the Malaysian electrical and electronics (E&E) landscape will remain robust in the coming months. This will be supported by the immense opportunities offered by the industry, especially with the rise in remote working, virtual learning and e-commerce. These insights were shared during a webinar hosted by SEMI, featuring Malaysian Investment Development Authority (Mida) chief executive officer Datuk Azman Mahmud, United Overseas Bank investment strategist Francis Tan and Soitec chief executive officer Paul Boudre.

SEMI president Bee Bee Ng said the global semiconductor market had shown early signs of resilience to the economic turmoil caused by Covid-19. Part of the strength comes from the nature of the industry itself, which is present and plays a role in growing vital sectors such as healthcare, automotive and retail. "We foresee the E&E landscape in Malaysia stabilising in the coming months, on the back of demand for smart manufacturing capabilities, automation and technological innovations," Ng said. "Our diversified economic structure and continuous support from the government in balancing public health and the livelihood of the people, underpin the growth momentum of the country's industrial capacity."

Meanwhile, Mida has introduced Malaysia's Lighthouse Project, a concept of modelling companies that embraced digital manufacturing and globalisation 4.0 in their business model and entire supply chain. Azman said Mida was assisting existing companies from various industrial sectors, including the E&E industry to transform and emerge as lighthouses. "We look forward to having more E&E companies enhancing their operations in Malaysia, especially those that are well engaged in lighthouse operations in growing their business journey in the country."

Source: New Straits Times, 18 June 2020

DATA / STATISTICS

TIN

MALAYSIAN TIN STATISTICS (In Tonnes)					
Period	Production of Tin-In-Concentrates	Imports of Tin-In-Concentrates	Refined Tin Production	Local Consumption	Exports of Tin Metal
2015	4,125	31,965	30,260	1,900	38,319
2016	4,158	30,536	26,849	2,238	27,470
2017	3,894	29,866	27,211	2,707	27,147
2018	3,868	27,450	27,115	1,964	27,342
2019*	3,596	25,644	24,387	1,441	24,418
2016					
Jan	357	2,667	2,550	167	2,172
Feb	304	2,273	2,939	205	2,779
Mar	377	1,697	2,611	213	3,153
Apr	361	2,333	2,381	233	2,849
May	349	1,984	2,529	236	2,563
Jun	342	2,101	1,951	151	2,029
Jul	311	2,054	1,873	116	1,720
Aug	303	2,293	2,159	200	2,238
Sep	335	1,823	1,865	204	1,730
Oct	347	1,948	1,920	173	1,766
Nov	359	2,267	1,977	154	2,149
Dec	378	2,172	2,094	186	1,834
2017					
Jan	351	2,377	1,683	171	1,530
Feb	316	2,033	2,167	203	2,635
Mar	306	1,723	2,044	322	2,091
Apr	275	2,441	1,832	263	1,777
May	339	2,598	2,572	218	2,326
Jun	308	2,446	2,121	258	1,732
Jul	333	3,154	2,605	320	2,768
Aug	329	2,428	2,812	178	3,106
Sep	314	2,565	2,149	179	2,275
Oct	323	2,775	2,256	225	2,116
Nov	368	2,740	2,478	204	2,510
Dec	338	2,586	2,492	166	2,281
2018					
Jan	308	2,424	2,060	171	1,950
Feb	297	2,046	2,214	190	2,009
Mar	323	2,488	2,340	158	2,584
Apr	330	2,430	2,111	192	2,401
May	336	2,895	2,343	171	2,435
Jun	292	2,494	2,219	192	2,162
Jul	342	2,609	2,571	162	2,687
Aug	393	2,619	2,470	215	2,257
Sep	280	1,653	2,068	149	1,899
Oct	319	2,284	2,282	117	2,138
Nov	324	1,844	2,563	102	2,746
Dec	306	1,874	1,874	145	2,074
2019*					
Jan	325	2,169	1,887	125	2,205
Feb	278	1,700	1,912	99	1,694
Mar	324	2,263	2,169	134	2,195
Apr	301	2,090	2,145	125	2,097
May	282	1,842	1,836	145	1,891
Jun	213	2,393	1,536	129	1,630
Jul	263	2,393	2,491	144	2,347
Aug	299	2,381	2,476	122	2,257
Sep	320	1,998	2,234	111	1,886
Oct	312	2,506	1,478	111	1,790
Nov	323	2,147	2,137	105	2,086
Dec	356	1,762	2,086	91	2,340
2020*					
Jan	288	2,136	2,224	n.y.a.	2,069
Feb	265	1,449	1,880	n.y.a.	2,138
Mar	162	1,105	978	n.y.a.	1,009
Apr	36	1,198	878	n.y.a.	813
May	n.y.a.	2,187	1,243	n.y.a.	1,356
Jun	n.y.a.	1,927	1,737	n.y.a.	1,469

* : Preliminary

n.y.a. : not yet available

Sources : Department of Statistics, Malaysia

Department of Minerals and Geoscience, Malaysia

Malaysia Smelting Corporation Bhd

DOMESTIC TIN CONSUMPTION (In Tonnes)					
Period	Total Consumption	Solder (*)	Tinplate	Pewter	Others (*)
2015	1,900	1,133	608	77	82
2016	2,238	1,314	750	86	88
2017	2,707	1,348	737	63	559
2018	1,964	1,019	759	39	147
2019**	1,441	695	639	19	88
2016					
Jan	167	97	63	3	4
Feb	205	140	46	12	7
Mar	213	144	63	3	3
Apr	233	150	62	15	6
May	236	117	69	14	36
Jun	151	82	59	3	7
Jul	116	44	58	11	3
Aug	200	133	59	6	2
Sep	204	152	45	3	4
Oct	173	79	73	13	8
Nov	154	83	67	0	4
Dec	186	93	86	3	4
2017					
Jan	171	102	54	12	3
Feb	203	133	64	2	4
Mar	322	139	76	13	94
Apr	263	100	72	2	89
May	218	150	61	3	4
Jun	258	108	61	12	77
Jul	320	143	76	1	100
Aug	178	79	62	2	35
Sep	179	101	40	1	37
Oct	225	104	68	4	49
Nov	204	95	49	1	59
Dec	166	94	54	10	8
2018					
Jan	171	101	57	3	10
Feb	190	133	54	1	2
Mar	158	93	49	13	3
Apr	192	103	78	1	10
May	171	106	56	1	8
Jun	192	116	61	13	2
Jul	162	99	60	0	3
Aug	215	132	75	1	7
Sep	149	62	62	1	24
Oct	117	23	69	1	24
Nov	102	11	61	0	30
Dec	145	40	77	4	24
2019**					
Jan	125	66	51	1	7
Feb	99	60	35	0	4
Mar	134	69	56	1	8
Apr	125	51	64	2	8
May	145	70	62	1	12
Jun	129	66	56	1	6
Jul	144	60	47	3	3
Aug	122	41	51	1	10
Sep	111	41	60	3	7
Oct	111	41	59	3	8
Nov	105	45	52	1	7
Dec	91	35	46	2	8
2020**					
Jan	n.y.a.	n.y.a.	48	n.y.a.	n.y.a.
Feb	n.y.a.	n.y.a.	52	n.y.a.	n.y.a.
Mar	n.y.a.	n.y.a.	45	n.y.a.	n.y.a.
Apr	n.y.a.	n.y.a.	53	n.y.a.	n.y.a.
May	n.y.a.	n.y.a.	44	n.y.a.	n.y.a.
Jun	n.y.a.	n.y.a.	67	n.y.a.	n.y.a.

Sources : Department of Minerals and Geoscience, Malaysia
Malaysia Smelting Corporation Bhd

* : The figures include high-grade tin (99.9% Sn) imported for consumption.

** : Preliminary.

Note : Local consumption of tin metal refers to the use of tin in a particular application.
Sales to manufacturing industries have been used as proxy for consumption except in the case of manufacture of tinplate for which actual consumption data available.

WORLD STOCKS OF REFINED TIN (In Tonnes at Period End)			
Period End	LME Stocks	Country Stocks	US Strategic Stockpile
2015	6,140	9,956	4,020
2016	3,800	18,600	4,020
2017	2,235	19,245	4,020
2018	2,165	16,790	4,020
2019	7,110	23,217	4,020
2016			
Jan	5,470	10,049	4,020
Feb	3,655	10,299	4,020
Mar	4,810	21,114	4,020
Apr	5,690	20,279	4,020
May	7,235	21,057	4,020
Jun	5,985	18,443	4,020
Jul	5,540	18,427	4,020
Aug	4,460	18,218	4,020
Sep	3,510	18,391	4,020
Oct	2,895	18,391	4,020
Nov	3,185	18,500	4,020
Dec	3,800	18,600	4,020
2017			
Jan	5,800	18,902	4,020
Feb	5,560	18,769	4,020
Mar	3,510	18,227	4,020
Apr	2,865	18,189	4,020
May	1,910	18,469	4,020
Jun	1,690	19,336	4,020
Jul	1,985	19,374	4,020
Aug	1,910	19,436	4,020
Sep	2,070	18,814	4,020
Oct	2,095	18,818	4,020
Nov	2,395	18,983	4,020
Dec	2,235	19,245	4,020
2018			
Jan	1,955	19,318	4,020
Feb	1,720	19,318	4,020
Mar	2,060	19,087	4,020
Apr	2,225	19,025	4,020
May	2,420	15,387	4,020
Jun	3,130	14,304	4,020
Jul	2,970	17,872	4,020
Aug	2,940	17,741	4,020
Sep	2,865	18,332	4,020
Oct	3,085	15,332	4,020
Nov	3,045	17,728	4,020
Dec	2,165	16,790	4,020
2019			
Jan	1,845	16,439	4,020
Feb	1,325	16,552	4,020
Mar	950	22,333	4,020
Apr	890	23,132	4,020
May	2,810	23,083	4,020
Jun	6,045	23,524	4,020
Jul	4,640	23,524	4,020
Aug	6,830	23,449	4,020
Sep	6,620	23,017	4,020
Oct	6,020	23,104	4,020
Nov	6,235	23,217	4,020
Dec	7,110	23,217	4,020
2020			
Jan	6,630	22,546	4,020
Feb	7,440	22,431	4,020
Mar	6,205	22,211	4,020
Apr	5,375	22,094	4,020
May	2,455	22,183	4,020
Jun	4,230	22,030	4,020

Sources : Metal Bulletin / World Bureau of Metal Statistics

KLTM & LME TIN PRICES				
	KLTM			LME CASH
	Average Price (*)		Total Turnover (Tonnes)	Average Price
	(USD / Tonne)	(RM / Kg)		(USD / Tonne)
2015	16,015	62.45	12,679	16,084
2016	17,528	72.75	11,568	17,982
2017	20,029	86.12	8,890	20,098
2018	20,151	80.99	9,075	20,168
2019	19,168	79.11	6,445	18,671
2016				
Jan	13,745	59.62	1,269	13,777
Feb	15,324	64.19	1,294	15,654
Mar	16,848	68.60	1,334	16,996
Apr	17,029	66.42	1,050	17,068
May	16,908	68.35	817	16,757
Jun	16,909	69.06	956	16,985
Jul	17,786	71.44	758	17,845
Aug	18,373	74.03	824	18,413
Sep	19,466	80.08	849	19,590
Oct	20,003	83.60	755	20,182
Nov	21,001	91.17	897	21,235
Dec	21,011	93.77	765	21,286
2017				
Jan	20,801	92.92	722	20,750
Feb	19,548	86.99	658	19,492
Mar	19,762	87.80	744	19,832
Apr	19,885	87.59	687	19,991
May	20,104	86.84	744	20,231
Jun	19,707	84.39	625	19,702
Jul	20,178	86.64	711	20,273
Aug	20,438	87.67	774	20,570
Sep	20,729	87.39	722	20,855
Oct	20,450	86.58	780	20,469
Nov	19,477	81.46	923	19,575
Dec	19,353	78.93	800	19,440
2018				
Jan	20,415	80.77	973	20,711
Feb	21,558	84.37	756	21,694
Mar	21,049	82.15	933	21,214
Apr	21,151	82.22	744	21,340
May	20,740	82.36	710	20,900
Jun	20,616	82.43	907	20,663
Jul	19,687	79.80	857	19,700
Aug	19,299	78.99	642	19,281
Sep	18,905	78.29	736	18,999
Oct	19,048	79.18	762	19,129
Nov	19,133	80.09	536	19,139
Dec	19,208	80.17	519	19,243
2019				
Jan	20,417	84.05	719	20,480
Feb	21,268	86.67	628	21,268
Mar	21,317	86.95	1,046	21,444
Apr	20,528	84.48	833	20,684
May	19,394	80.85	388	19,531
Jun	19,065	79.34	344	19,177
Jul	18,074	74.55	416	17,991
Aug	16,532	69.22	422	16,577
Sep	16,730	70.05	392	16,840
Oct	16,562	69.34	464	16,603
Nov	16,624	69.11	417	16,369
Dec	16,883	70.00	376	17,093
2020				
Jan	17,014	69.42	406	17,056
Feb	16,536	68.85	354	16,457
Mar	16,417	69.47	236	15,321
Apr	N.A	N.A	N.A	15,039
May	15,110	65.65	268	15,410
Jun	16,605	71.03	374	16,806

Sources : Kuala Lumpur Tin Market/ Malaysia Smelting Corporation Bhd

Note : As from 1 February 2001, KLTM price is quoted in US Dollar

(*) KLTM's monthly average price is arrived at on a weighted average against total tonnage basis.

Malaysian Ringgit to US Dollar exchange rate was unpegged on 22.8.2005

LEAD

LME PRICES & STOCKS		
	Cash Settlement (US\$ / Tonne)	Stocks Period End (Tonnes)
2016	2,230.83	194,900
2017	2,508.82	142,225
2018	1,965.47	107,375
2019	1,899.25	66,200
2016		
Jan	1,646.95	188,125
Feb	1,771.57	211,475
Mar	1,808.02	155,975
Apr	1,728.67	174,325
May	1,714.43	185,375
Jun	1,713.91	185,150
Jul	1,834.88	187,075
Aug	1,838.89	187,275
Sep	1,942.02	190,250
Oct	2,039.93	188,700
Nov	2,178.84	187,725
Dec	2,230.83	194,900
2017		
Jan	2,236.69	189,050
Feb	2,321.73	189,600
Mar	2,277.30	184,275
Apr	2,231.31	169,425
May	2,131.67	180,275
Jun	2,131.18	164,150
Jul	2,266.40	152,800
Aug	2,357.32	148,425
Sep	2,377.29	157,475
Oct	2,506.30	149,250
Nov	2,464.41	145,000
Dec	2,508.82	142,225
2018		
Jan	2,589.77	133,250
Feb	2,580.83	125,225
Mar	2,397.00	129,100
Apr	2,357.38	130,775
May	2,363.88	133,475
Jun	2,440.74	131,775
Jul	2,212.91	127,025
Aug	2,064.86	122,925
Sep	2,028.23	115,700
Oct	1,985.15	113,550
Nov	1,940.16	105,125
Dec	1,965.47	107,375
2019		
Jan	1,994.16	72,450
Feb	2,062.08	76,875
Mar	2,054.57	78,750
Apr	1,948.85	74,425
May	1,817.21	69,400
Jun	1,891.50	65,750
Jul	1,974.02	78,500
Aug	2,043.19	77,525
Sep	2,070.86	69,500
Oct	2,184.30	70,075
Nov	2,031.90	67,125
Dec	1,899.25	66,200
2020		
Jan	1,925.16	66,800
Feb	1,872.30	68,100
Mar	1,744.64	70,900
Apr	1,651.53	73,650
May	1,618.16	75,825
Jun	1,739.86	66,500

COPPER

LME PRICES & STOCKS		
	Cash Settlement (US\$ / Tonne)	Stocks Period End (Tonnes)
2016	5,666.25	311,825
2017	6,801.16	200,650
2018	6,094.21	132,175
2019	6,062.43	144,675
Jan	4,462.75	239,400
Feb	4,595.48	193,475
Mar	4,947.55	143,400
Apr	4,851.12	154,675
May	4,708.35	154,350
Jun	4,630.64	189,125
Jul	4,855.79	210,075
Aug	4,758.20	304,775
Sep	4,707.18	371,775
Oct	4,732.14	319,475
Nov	5,443.25	236,675
Dec	5,666.25	311,825
Jan	5,737.43	260,850
Feb	5,941.55	200,725
Mar	5,821.52	283,900
Apr	5,697.67	253,675
May	5,591.50	308,000
Jun	5,699.48	278,275
Jul	5,978.60	295,525
Aug	6,478.18	223,500
Sep	6,583.19	295,500
Oct	6,797.39	273,675
Nov	6,825.57	183,525
Dec	6,801.16	200,650
Jan	7,080.30	304,675
Feb	7,001.80	328,000
Mar	6,795.76	383,025
Apr	6,838.55	325,525
May	6,821.76	317,950
Jun	6,954.79	289,875
Jul	6,248.18	251,950
Aug	6,039.75	262,475
Sep	6,020.03	199,125
Oct	6,215.89	136,675
Nov	6,193.00	134,200
Dec	6,094.21	132,175
Jan	5,932.02	149,950
Feb	6,278.20	126,100
Mar	6,451.02	168,525
Apr	6,445.10	225,925
May	6,028.31	211,800
Jun	5,868.43	240,900
Jul	5,939.85	287,800
Aug	5,707.98	335,850
Sep	5,745.48	258,775
Oct	5,742.89	255,025
Nov	5,859.69	208,525
Dec	6,062.43	144,675
2020		
Jan	6,049.20	179,800
Feb	5,686.45	216,950
Mar	5,178.68	221,200
Apr	5,048.25	251,475
May	5,233.82	255,725
Jun	5,742.39	213,325

SILVER

LONDON SPOT PRICES	
	London Spot (US Cents / Troy Oz)
2016	1,638.00
2017	1,616.00
2018	1,470.00
2019	1,711.00
Jan	1,402.00
Feb	1,507.00
Mar	1,542.00
Apr	1,626.00
May	1,689.00
Jun	1,718.00
Jul	1,993.00
Aug	1,964.00
Sep	1,928.00
Oct	1,767.00
Nov	1,742.00
Dec	1,638.00
Jan	1,681.00
Feb	1,787.00
Mar	1,759.00
Apr	1,804.00
May	1,676.00
Jun	1,696.00
Jul	1,614.00
Aug	1,691.00
Sep	1,745.00
Oct	1,694.00
Nov	1,701.00
Dec	1,616.00
Jan	1,717.00
Feb	1,666.00
Mar	1,647.00
Apr	1,661.00
May	1,647.00
Jun	1,652.00
Jul	1,571.00
Aug	1,501.00
Sep	1,426.00
Oct	1,458.00
Nov	1,437.00
Dec	1,470.00
Jan	1,559.00
Feb	1,580.00
Mar	1,532.00
Apr	1,504.00
May	1,463.00
Jun	1,500.00
Jul	1,575.00
Aug	1,714.00
Sep	1,817.00
Oct	1,762.00
Nov	1,718.00
Dec	1,711.00
2020	
Jan	1,796.50
Feb	1,792.20
Mar	1,491.82
Apr	1,504.55
May	1,623.24
Jun	1,771.98

n.y.a. : not yet available

Source : London Metal Exchange
The Silver Institute

ASSOCIATION MEMBERS

Currently, the Association comprises one associate and 16 ordinary members covering the three main sectors of Malaysia's tin-based products manufacturing industry, namely the tinplate, solder and pewter sectors as listed below:

ORDINARY MEMBERS:

TINPLATE

Perusahaan Sadur Timah Malaysia Bhd (PERSTIMA)

SOLDER

Henkel (M) Sdn Bhd

Nihon Superior (M) Sdn Bhd

RedRing Solder (M) Sdn Bhd

Selayang Metal Industries Sdn Bhd

Selayang Solder Sdn Bhd

Senju (M) Sdn Bhd

Shen Mao Solder (M) Sdn Bhd

Premium Metal Sdn Bhd

Rian Resources Sdn Bhd

PEWTER

Oriental Pewter Sdn Bhd

Present & Artifact Sdn Bhd

Royal Selangor International Sdn Bhd

Selwin Pewter Sdn Bhd

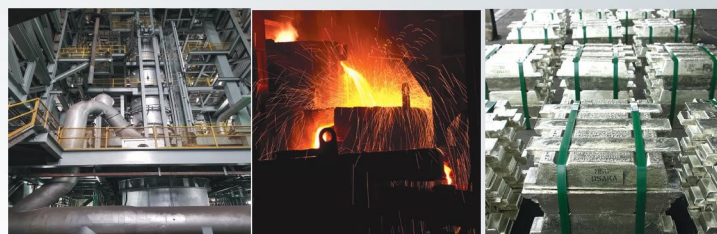
Tumasek Pewter Sdn Bhd

ASSOCIATE MEMBER:

Malaysia Smelting Corporation Bhd



MSC – A Global Integrated Tin Mining and Smelting Group



The MSC Group is currently one of the world's leading integrated producers of tin metal and tin based products and a global leader in custom tin smelting since 1887.

In 2019, the Group produced 25,752 tonnes of tin metal making it the third largest supplier of tin metal in the world. The Group's smelting facility in Butterworth operates one of the largest smelting plants in the world converting primary, secondary and often complex tin bearing ores into high purity tin metal for industrial application. MSC Straits Refined tin brand is registered at LME (London Metal Exchange) and KLTM (Kuala Lumpur Tin Market). The brand is accepted worldwide and has purity ranging from the Standard Grade A (99.85% Sn) to the premium grade electrolytic tin (99.99% Sn).

In November 2004, MSC expanded upstream in mining through the acquisition of Rahman Hydraulic Tin Sdn Bhd (RHT), Malaysia's long established and largest operating open-pit tin mine. Since the takeover, extensive work has been carried out covering mining, pit operation and improvement to the milling/concentrator circuits. This has transformed RHT to become a sustainable and significant tin producer, incorporating international best mining and energy efficiency practices.

The MSC Group will soon be joining a handful of tin smelters in the world who have already started using the Top Submerged Lance (TSL) technology for tin smelting. The ISASMELT furnace located at its Port Klang smelter is being refurbished in preparation to carry

out tin smelting. The migration from Reverberatory furnace to ISASMELT furnace is expected to increase processing efficiency and throughput. The ISASMELT furnace will also be fitted with a waste heat recovery system to power some of its plant and equipment. Besides this, power generated from the solar panels mounted on the smelter roof is further testimony of the Group's vision to continuously harness power from renewable sources to reduce its carbon footprint. The new smelter's location is equally strategic due to its proximity to the port and LME warehouse.

The Group will continue to focus its growth strategy on its core business through organic growth where its core expertise's niche expertise in tin is continually being strengthened in all areas over the entire global tin supply chain covering geology, mining, mineral processing, smelting and marketing.

MSC will pursue its growth strategy on its core business in tin through strategic acquisitions and organic growth where its core expertise can add value particularly in increasing operating efficiencies, innovating products and services to ensure its continued leadership position in the industry.

GROWTH STRATEGY

The Group's niche expertise in tin is continually being strengthened in all areas over the entire global tin supply chain covering geology, mining, mineral processing, smelting, marketing, resource management and financing.

MSC will pursue its growth strategy on its core business in tin through strategic acquisitions and organic growth where its core expertise, skills and capabilities can add value and make a difference particularly in increasing operating efficiencies, innovating products and services as well as forging global commercial and marketing networks to ensure its continued leadership position in the industry.

Investment opportunities will continue to be evaluated and the Group may in future decide to invest in selective projects that meet its investment criteria. Main emphasis will be on opportunities in regions where the country risks could be effectively managed and that the mines could be developed and operated with relatively lower cost structure.

Registered & Corporate Office: Lot 6, 8 & 9, Jalan Perigi Nanas 6/1, Pulau Indah Industrial Park, West Port, Port Klang, 42920 Pulau Indah, Selangor, Malaysia
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Sales & Trading Division: Unit 15-12, Level 15, West Wing, Q Sentral, 2A Jalan Stesen Sentral 2, KL Sentral, 50470 Kuala Lumpur, Malaysia
Tel: (603) 2276 6260 • Fax: (603) 2276 6245

Butterworth Smelter: 27 Jalan Pantai, 12000 Butterworth, Penang, Malaysia
Tel: (604) 333 3500 • Fax: (604) 331 7405/332 6499 • E-mail: msc@msmelt.com

MSC
Malaysia Smelting Corporation Berhad
(43072-A)

STANLOY®



Specialty anodes in lead and tin

- ▶ Extruded wave anodes
- ▶ Extruded solid round anodes
- ▶ Extruded hollow round lead anodes
- ▶ Cored anodes
- ▶ 12-point extruded solid star anodes
- ▶ 12-point extruded hollow star anodes
- ▶ Extruded octagonal section anodes

Small parts in lead and tin

- ▶ Metering and security seals
- ▶ Diving weights

Pewter alloys

Chemical service

- ▶ Extruded lead coils and pipes
- ▶ Bearing / anti-friction metals

Lead acid battery components

- ▶ Battery terminals
- ▶ Lead oxides
- ▶ Lead burning sticks
- ▶ Extruded cooling coils
- ▶ Busbars
- ▶ 12-point extruded hollow star anodes
- ▶ Extruded octagonal section anodes

Radiation containment

- ▶ Radioactive isotope containers
- ▶ Lead bricks
- ▶ Radiation protection doors and mobile shields

Sailboat / yacht accessories

- ▶ Boat keels / bulbs

MATERIAL AVAILABILITY

All our casting and extruded products are produced from high purity materials and are available in the following chemical composition: -

- ▶ Pure lead of 99.97% minimum
- ▶ Antimonial lead alloys of up to 6% antimony content
- ▶ Pure tin of 99.85% and its alloys

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