WEEKLY INSIGHTS
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Jackson Hole – Takeaways for Asia
Asia: Outlook for the Electronics Industry

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Jackson Hole – Takeaways for Asia

Three important implications emerge for Asian policy making following the Jackson Hole event.

- First, the developed economies will persist with a more stringent pace of monetary than expected. Second, a more complex global environment is making it difficult to design monetary policy which is becoming less effective. Finally, the US Dollar has strengthened even more following the event.
- The net result is that there is more pressure on Asian central bankers to follow suit even if the downside risks to global growth have intensified:

	1Q22	2Q22	3Q22f	4Q22f	1Q23f	2Q23f
Taiwan	Raised Benchmark Rate by +25bps	Raised Benchmark Rate by +12.5bps	Raised Benchmark Rate by +12.5bps	Raised Benchmark Rate by +12.5bps	Raised Benchmark Rate by +12.5bps	Raised Benchmark Rate by +12.5bps
Korea	Raised Benchmark Rate by +25bps	Raised Benchmark Rate by +50bps	Raised Benchmark Rate by +75bps	Raise Benchmark Rate by +25bps	Hold	
India	Hold	Raised Repo Rate by 90bps	Raise Repo Rate by 85bps	Hold		
Indonesia	Hold + RRR hike	Hold + RRR hike	Raise Benchmark Rate by 50bps	Raise Benchmark Rate by 25bps	Raise Benchmark Rate by 50bps	Hold
Malaysia	Hold	Raised OPR by 25bps	Raise OPR by 50bps	Raised OPR by 25bps	Raised OPR by 25bps	Hold
Philippines	Hold	Raised Benchmark Rate by 50bps	Raised Benchmark Rate by 150bps	Raise Benchmark Rate by 25bps	Hold	
Singapore	**Raised slope of S$NEER	Raised slope of S$NEER	**Raised mid-point of S$NEER	Raise slope of S$NEER	-	Hold
Thailand	Hold	Hold	Raise benchmark rate by 50bps	Raise benchmark rate by 12.5bps	Hold	Hold

Asia: Outlook for the Electronics Industry

- Lead indicators point to slowing global electronics demand which will inflict some short-term pain on Asian economies. However, secular growth trends in electronics make for a soft landing for Asian electronics while long-term growth is likely to be stellar.
- Within Asia, Malaysia and Taiwan are the most vulnerable to an electronics slowdown. India and Indonesia are the two economies least affected by the slowdown.

What has changed recently:

- **A bad week for Prime Ministers**: Thai Prime Minister Prayuth has been suspended by the Constitutional Court. Malaysian Premier Ismail Sabri is under pressure to call early elections after the jailing of his predecessor for corruption.
- **China**: The CNY1tr in additional fiscal stimulus will have limited effect. Ongoing regulatory crackdowns may hinder the efficacy of stimulus efforts.
- **Singapore**: MAS is set to tighten policy again in Oct 22 given continuing price pressures.

Jackson Hole – Takeaways for Asia

The annual Jackson Hole conclave of central bankers and other policy makers showed how the global environment is turning more difficult for monetary policy makers in Asia. There, the key global central banks signalled a more aggressive pace of monetary tightening than expected. The extreme uncertainty created by the interplay of geo-political factors, China's slowdown, the energy price shock, worse-than-expected weather and the lagged impacts of monetary tightening also complicate the picture for monetary policy making. This increases risk aversion among global investors and so precipitates capital outflows from emerging Asian markets while disposing the region's central banks to be data-dependent in their decision-making.

Given this, we think that Asian central bank policy makers will continue to prioritise controlling inflation and preventing their currencies from coming under severe downward pressures. Despite concerns over the downsides to economic growth, they feel constrained in using monetary tools to cushion against that risk.

What will Asian policy makers conclude from the Jackson Hole meetings?

There were three important implications for Asian policy making following the Jackson Hole event.

First, it is clear that the big developed economies will persist with monetary tightening at a more stringent pace than expected, placing more pressure on Asian central bankers to follow suit.

The central bankers' rhetoric at the Jackson Hole meeting seems to suggest that they realise that their credibility in fighting inflation has been dented. They see it as imperative that they reclaim that credibility through a tough monetary tightening and to persist with such tightening even if the economy slows. Federal Reserve Chairman Powell made this clear when he said that interest rates would stay at levels that restrain growth "for some time", and that the process would entail "some pain" for households and businesses. The evidence he found in the historical record persuaded him to resist "prematurely loosening policy".

Comments by European Central Bank executive board member Isabel Schnabel and Banque de France Governor François Villeroy de Galhau were in the same vein. Both intimated that tight monetary policy would be in place for an extended period. Schnabel even warned that a larger sacrifice might be needed than in previous episodes of tightening in order to achieve the central banks' objectives of restoring price stability.

Asian central banks will probably conclude that the terminal policy rates in the US and Europe are likely to be higher than they initially assumed. Monetary tightening will proceed on a sharply higher trajectory with high interest rates likely to remain for longer than expected. They also realise that the US and European central banks are more willing to take risks with a recession than they had anticipated.

The second important theme that emerged from the Jackson Hole event was how a series of challenges in the global environment were making it difficult to control inflation with monetary policy. Speakers at the conference noted the increasing difficulty in interpreting economic data and drawing conclusions about economic growth and inflation given the uncertain interplay of geo-political frictions, China's slowdown, the energy price shock and the normalisation of economic activity as the covid pandemic receded.

International Monetary Fund Deputy Managing Director Gita Gopinath argued that the next five years would be very challenging for monetary policy making because she expected supply shocks to be more volatile than in the past twenty years. Thus, the would be "more costly trade-offs for monetary policy". For his part, World Bank President David Malpass worried that central banks' tools were ill-suited to address the supply-related inflationary pressures that are driving a significant portion of the recent inflation surge.

Third, as a result of the concerns these speeches raised in financial markets, there was a sharp fall in risk appetites resulting in an exodus of capital from risky assets. At the same time, the US Dollar surged in value against virtually all other currencies. The offshore Chinese Yuan has continued to weaken to a two-year low as a result. If this persists, then downward pressures on other Asian currencies, already beginning to show, will intensify. The concern with US Dollar strength was probably why both the BSP and the BoK have warned that more aggressive policy moves by the Fed could feed into their reaction function.

Consequently, Asian central banks will veer towards continued tightening

The Bank of Korea (BoK) raised the base rate by 25bps at its 25 Aug 22 monetary policy meeting, after earlier back-to-back 50bps rate hikes.

- At that point, the BoK appeared to step away from a very hawkish stance to a still rigorous but more nuanced approach. Its monetary policy statement no longer mentioned the need for "pre-emptive" policy responses to anchor inflation expectations while noting the bourgeoning downside risks to growth in export markets alongside falling housing prices and household loans at home. It downgraded GDP growth projections slightly to 2.6% in 2022 (from 2.7%) and 2.1% in 2023 (from 2.4%). However, the BoK reckoned that inflation would remain elevated at around 5%-6% (2022e: 5.2%; 2023e: 3.7%), and signalled growing concern over capital flows from the Fed's rate hike, suggesting the BoK is not done raising rates yet. The next policy review is on 14th October.

- This careful balance with a skew to continued tightening was repeated by Bank of Korea Governor Rhee Chang-yong more forcefully after he listened to his peers' speeches at Jackson Hole. Taking the cue from the Federal Reserve, he observed that the BoK had to keep raising its policy rate until inflation was clearly declining and that it could not risk pausing its tightening until the Federal Reserve had indicated that it was done. Rhee was concerned that higher US rates would weaken the Won further and cause Korean inflation to rise. This was one reason he felt it was premature to say that inflation had peaked in Korea. He also indicated that, given the great uncertainties in the global environment, the BoK's policy steps would be data-dependent. So long as inflation risks persisted, the signal he was sending was a rigorous one – if Korean inflation rate continued to be well above 5%, the BoK should prioritize price stability.

In India, minutes from the July Reserve Bank of India (RBI) meeting, which raised the repo rate to 5.4%, painted a rosy picture of the inflation dynamics in India, which we had thought might have been a tad too complacent.

- Dovish members of the board shared similar views on the vigour of the Indian economy, which easily made the case for another 50bps hike as inflation remains outside of the RBI's tolerance band (2%-6%), with one suggesting real rates are near neutral (i.e. 0%). The RBI board reiterated that inflation has peaked in 2Q22, although price pressures will remain sticky above 6% till 4Q22. Separately, RBI governor Das opined that inflation will come down to 4% by FY24, which opens the door to rate cuts.

- However, on Saturday after the Jackson Hole conference, RBI Deputy Governor Michael Patra chose to emphasise the upside risks to Indian inflation, noting that price pressures still remained even as inflation had decelerated, from its peak of 7.8% in April 2022. Patra felt that the inflation trajectory continued to be heavily contingent upon the evolving geopolitical developments, international commodity prices and global financial sector developments. Like Governor Rhee of the BoK, he believed that the RBI needed to be data-dependent. It needs to wait for more incoming data before being convinced of the durability of the trend of moderating consumer prices.

Bank Indonesia pushed through with an unexpected 25bps rate hike – the first since the outbreak of the pandemic – on 23rd August. In a remarkable volte-face from July,

- BI now thinks growth will end up toward the upper end of its forecast (4.5%-5.3%), and core inflation (2022e: 4.15%) to exceed the inflation target (2%-4%). Governor Perry painted the rate hike as a "pre-emptive" move amid growing speculation that the government is readying a move to raise the prices of subsidised fuel to ensure the fiscal consolidation effort remains on track.

In the Philippines, the BSP lifted the benchmark rate by 50bps in the 18 Aug 22 monetary board meeting, bringing the reverse repurchase rate to 3.75% as it now sees inflation averaging 5.4% in 2022 (previously 5.0%), easing to 4.0% in 2023 (previously 4.2%). The BSP warned of still-salient upside risks to the inflation outlook, particularly on the supply-side, such as domestic food and sugar shortages and petitions for transport fare hikes as it sees inflation peaking by Oct 22 at the earliest. Notably, governor Medalla suggested that the BSP will "react" if the Fed raises rates aggressively. The BSP will also defer plans for the reduction in the RRR till end-2022 so as not to “confuse” the market.

Bank of Thailand (BoT) Governor Sethaput quashed suggestions that the central bank will mirror the Fed in raising rates, adding that growth concerns remain more salient in Thailand as output has yet to match pre-pandemic levels. Inflation may be “uncomfortably high” but Sethaput is adamant that the BoT is not behind the curve and the unfavourable supply dynamics should ease back to target by mid-2023 with a softening of commodity prices.

Conclusion: Upside risks to rates in EM Asia-ex China remain salient.

This is also testament to the strength of the recovery in the region, led by domestic demand with the easing of Covid-19 restrictions earlier in the year. This offsets, to an extent, the looming weakness in external demand, given the backdrop of a deceleration in the G3 economies even as commodity prices remain buoyant and electronic exports are still going strong. We upgrade our expectations for Thailand and Indonesia, going by Bank Indonesia’s hawkish tilt as we pencil in another 12.5bps hike in 4Q22 by the BoT and for BI to raise rates twice more in the remainder of this year. Also, BI’s policy hike could foretell hikes to subsidised fuel prices going forward, exerting upward pressure on inflation.

Table 1: Summary of Monetary Policy Moves (Benchmark Rate Hikes)

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Source: CEIC, Centennial Asia Advisors. *MAS meets only twice a year, in April (2Q) and October (4Q). **January move by MAS represents an off-cycle meeting.

<u>Terminal rates are in sight for some Asian economies, where inflation is peaking</u>. If the inflation dynamics in India remain salient, depending on the food price dynamics, peak rates should be firmly in sight with another 35bps hike in September before the central bank calls time on the rate hike cycle. Similarly, rates are peaking soon in Korea with household lending and the property market seeing some signs of weakness as the cost of borrowing heads north. We expect just one more 25bps hike by the BoK followed by an extended pause as inflation should ease slightly to still-giddy levels in 4Q22.

Asia: The Outlook for the Electronics Industry

Lead indicators are pointing to weakening global electronics demand. This has significant implications for Asia's major manufactured goods exporters as they are heavily reliant on the global electronics value chains. In assessing the outlook for Asian electronics, our conclusion is two-fold. First, the ongoing slowdown will inflict a measure of near-term pain on Asian economies. Second, however, there reason to expect a soft landing for Asian electronics and that long-term growth is still likely to be stellar. Owing to the heterogeneity in electronics manufacturing in Asia, we also highlight the differences in outlooks for various Asian economies.

Lead indicators are pointing to a global electronics downturn

The S&P Global Electronics PMI has been on a downward trend and declined further to 51.8 in Jul 22, down from 53.6 in Jun 22 (Chart 1). The survey's sub-indexes further illuminate slowing global electronics demand – new orders contracted for the second consecutive month and manufacturers chose to cut back on accumulating inventory. Input buying rose at the slowest pace in 22 months and electronic manufacturers chose to deplete their stocks of finished goods to complete orders.

Chart 1

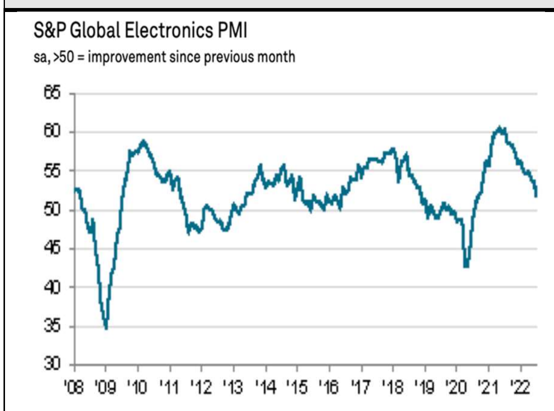
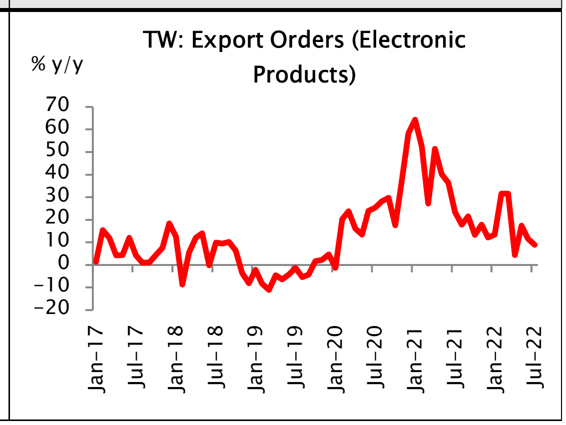


Chart 2



Source: S&P Global, CEIC

Semiconductor exports are easing in Taiwan and South Korea, bellwethers of global electronics demand. Taiwan's new export orders for electronic products (which consist mainly of semiconductors) eased to +8.8% y/y in Jul 22 (Chart 2) while South Korea's semiconductor exports eased to +2.1% y/y in Jul 22 (Chart 3). Semiconductor stockpiles have expanded at the fastest pace in more than 6 years (Jun 22: +79.8% y/y) in South Korea.

Industry organisations are also forecasting a slowdown in global electronics demand. The World Semiconductor Trade Statistics forecasts that annual semiconductor sales growth will remain robust at 16.3% in 2022 but ease significantly to 5.1% in 2023. A similar trajectory of worse magnitude was forecasted by Garner, which put annual semiconductor sales growth at 7.4% in 2022 and -2.5% in 2023.

A global electronics slump has significant implications for Asia. This is because the electronics industry is crucial to Asia – the region dominates the global electronics value chain. Globally, 62% of LED/LCD TVs, 70% of semiconductors, 76% of automobile sat-navs, 86% of smartphones, 80% of hard disk drives, and 100% of digital cameras are manufactured in Asia. With the exception of for India and Indonesia, electronics make up between 5 – 55% of Asian economies' exports.

Chart 3

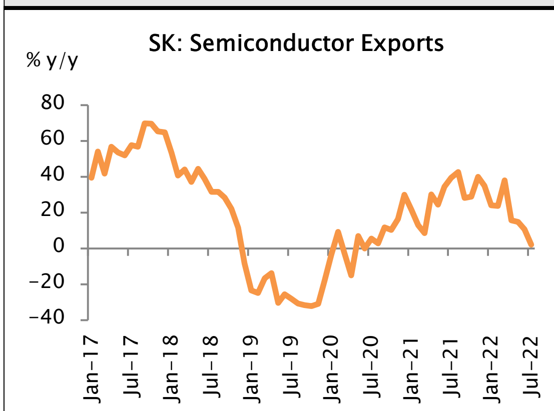
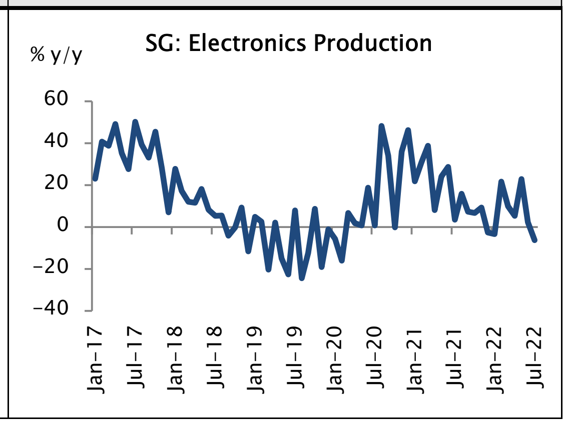


Chart 4



Source: CEIC

The cyclical downturn will be painful for Asia...

Given Asia's reliance on electronics, the ongoing slowdown will inflict some short-term pain on Asian economies. This is already evident in Taiwan and South Korea's export performance. Singapore's latest manufacturing print also demonstrates slowing growth in the electronics cluster (Jul 22: -6.3% y/y), although the year-on-year changes for Singapore's electronic exports tend to be more volatile (Chart 4).

Pin-pointing the specific sources of slowing global electronics demand would be helpful for understanding its impacts on Asia but doing so is rather difficult. This is due to the many end-markets for electronic goods (Table 1). Weaker consumer electronics demand, however, is a significant contributor. Chipmakers highly exposed to consumer demand have been hard hit:

- Qualcomm, a global leader in semiconductor chips for smartphones (more than half its total sales comes from the handset segment), forecasted 4Q22 revenue lower than Wall Street expectations last month. "We expect the elevated uncertainty in the global economy and the impact of Covid measures in China will cause customers to act with caution in managing their purchases in 2H22," said Qualcomm CFO Akash Palkhiwala.

- Intel saw a USD500mn loss in 2Q22, its first quarterly loss in decades, and slashed its annual sales and profit forecasts last month. Intel generates approximately half its revenue from semiconductor chips that power desktops and laptops.

- Chipmakers such as TSMC and Micron have also in previous months warned of weakening consumer electronics demand. In Mar 22, TSMC Chairman Mark Liu warned of a slowdown in "smartphones, PCs, and TVs, especially in China, the biggest consumer market". In a Jun 22 earnings call, Micron CEO Sanjay Mehrotra highlighted "a significant reduction in industry bit demand, primarily attributable to end demand weakness in consumer markets, including PC and smartphone."

Table 1: Types of Electronics End-Demand

<table>
<tr><th>Consumer</th><th>Industrial</th><th>Public Use</th></tr>
<tr><td>Consumer electronics</td><td>Industrial equipment</td><td rowspan="6">Electrical utilities</td></tr>
<tr><td colspan="2">Communications and networking</td></tr>
<tr><td>Consumer appliances</td><td>Computers, storage, and office</td></tr>
<tr><td colspan="2">Automotive</td></tr>
<tr><td>Medical</td><td>Defence</td></tr>
<tr><td colspan="2">Aerospace</td></tr>
</table>

Source: World Bank Report (An Investment Perspective on Global Value Chains, 2020)

.... but there is good news for Asian electronic exports beyond this downturn

We think that there is a good chance of a soft landing for Asian, and that beyond bouts of cyclical weaknesses, growth is likely to be stellar for the electronics industry in Asia. This is because we see strong multiple drivers of secular growth in the electronics industry. These growth segments will cushion the downturn for Asia and underpin a strong long-term growth outlook. We outline these drivers of secular growth below:

The first set of drivers relate to stepped-up adoption of digital technology

First, government efforts to bring about digital transformation in their economies will drive sustained growth in the electronics sector. This results from the increased use of electronic devices and components necessary for digitalisation. What this looks like specifically is more consumers adopting electronic devices such as smartphones, PCs, and tablets (this will unfold more strongly in emerging economies), and businesses processes being automated or made more efficient with digital technology. While some sectors of the economy are already far ahead in digitalisation – such as the retail sector with e-commerce and the finance sector with internet banking – many traditional sectors of the economy still have a ways to go. For example, a 2019 McKinsey report found that the engineering and construction sector is one of the world's least digitised.

There are no shortages of examples of governments embarking on digitalisation drives. The European Commission has set ambitious digitalisation targets under its "Digital Decade" strategy. Vietnam adopted the "National Strategy for Digital Economy and Society Development" in Apr 22 that aims to increase the number of SMEs using digital platforms to 50% by 2025, among other goals. Singapore will dole out SGD174mn in research grants for digitalisation projects. The list goes on.

Second, innovations in digital technology will also ramp up demand for electronics in the long-term. This innovation is known as the "Internet of Things (IoT)", where physical objects are embedded with sensors, software, and other technology that connect and exchange data with other devices and systems over the internet. The magnitude to which IoT can drive electronics demand is immense because of its sheer number of applications, from consumer products such as robotic vacuum cleaners to industrial products such as factory machinery and electrical power grids that deliver real-time data to operators. According to Fortune Business Insights, the global IoT market is projected to grow from USD478bn in 2022 to USD2,465bn by 2029, a CAGR of 26.4% in the forecast period. In turn, the IoT semiconductor market is projected to grow at a CAGR of 19% from USD33bn in 2020 to USD80bn in 2025.

The second driver is technological innovation that increases the content of electronics in manufactured goods

We cite three such innovations that we think will take-off in the coming years:

- **Automobile electronics will become more advanced…**: Technological innovations in automobiles are intimately related with electronics. To give an example of this, while software accounts for 10% of the value of a passenger car today, it is forecast to account for 30% by 2030. As a result, cars are now referred to as "computers on wheels" and cars have more technology in them than computers do. The continued development of automobiles will further drive electronics demand. The rise of electric vehicles further stimulates this growth, as an electric vehicle needs 2.3x more semiconductors as compared to an internal-combustion engine car.

- **…and so will medical electronics**: Technological innovations in medical devices are also intimately related with electronics. Take a "deep brain stimulation unit" for example – at just 20mm long and 8mm wide, it requires 13 electronic components connected with gold wires. Continued innovation in this field will drive electronics demand. Greater healthcare spending with aging populations further supports this trend. Business is already booming in the electronic manufacturing services (EMS) segment of the medical device industry. According to MarketWatch, this segment is expected to grow at a CAGR of over 4% through 2026.

- **High-performance computing (HPC) is promising**: HPC is an up-and-coming technology that will firmly drive electronics growth. HPC processes large volumes of data at very high speeds to solve advanced computational problems, and super supercomputing cluster includes tens of thousands of processors. HPC is still niche, but leading economies such as China, the European Union, and Japan are pouring large amounts of funds into its development. The potential for HPC-related electronics growth can also be seen from TSMC's earnings performance – in 1Q22, sales from TSMC's HPC segment surpassed its smartphone segment for the first time and posted the highest quarterly growth rate at 26%.

The third secular growth trend is increased defence spending.

Electronic systems form an integral part of almost all defence systems and military equipment today. Rising geopolitical tensions lie behind this trend and it is already unfolding. Taiwan has proposed a 14% jump in defence spending for 2023. Japan has announced intentions to drastically increase its defence spending "within the next five years". Germany has approved a EUR100bn fund to modernise its armed forces. Defence electronics is not too small a segment to drive growth – Fatpos Global estimates that the defence electronics market will surpass USD231.6bn by 2030.

Altogether, these factors lead us to conclude that a soft landing for Asia is possible and that Asia can look forward to robust growth once the current bout of cyclical weakness is over. At the centre of the global electronics value chain, Asia is uniquely poised to reap the growth opportunities in the electronics sector.

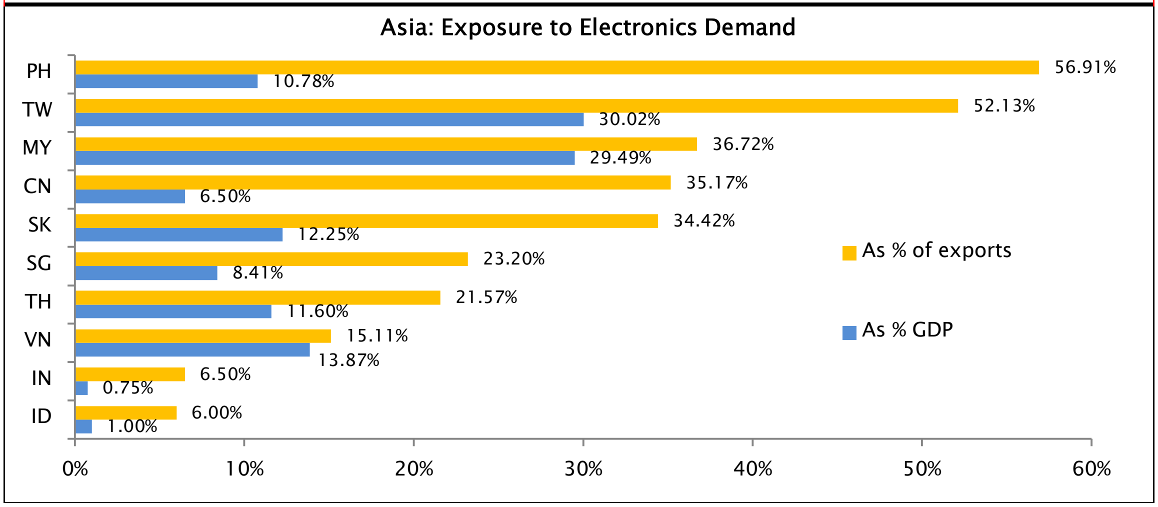
Economies have different exposures to various niches in electronics

There is substantial heterogeneity in Asia's electronics value chains. Thus, we look at how the electronic outlook differs for different Asian economies based on different measures of heterogeneity.

The first measure – exposure to electronics demand

The extent to which Asian economies will be affected by the ongoing downturn depends on their exposure to electronics demand (Chart 5).

Chart 5



- **India and Indonesia** will be the least affected by the electronics downturn. They are the least integrated into the global electronics value-chain, the latter's export base composed primarily of commodity exports. However, while this means less volatility for these economies, they also lose out strong secular growth in the electronics industry. India's government now intends to reap the spoils of electronics sector, announcing in Apr 22 a USD10bn incentive plan for semiconductor manufacturing.

- **The Philippines'** external position will be significantly impacted by the electronics downturn as electronics makes up a whopping 56.9% of its exports. However, the Philippines will be less affected in terms of growth because electronic exports make up only 10.8% of GDP.

- **Malaysia and Taiwan** are the two economies that rely the most heavily on the electronics sector both in terms of exports and growth. This renders both economies the most vulnerable to an electronics slowdown.

- **South Korea, Singapore, and China** have a large part of their exports driven by electronics but due to their lower shares of electronics as a % of GDP, they are more shielded from an electronics downturn.

- **Vietnam and Thailand** are economies in the middle-ground. Electronics exports are important drivers of growth, but their economies are not dominated by it.

Additionally, the way in which the ongoing downturn affects Asian economies also varies based on its exposure to external demand. Economies that are more exposed to external demand in terms of a % of exports will be at greater risk of terms-of-trade shocks and currency volatility. Economies that are more exposed to external demand in terms of a % of GDP will experience greater volatility in economic growth.

The second measure – value-added generated

Economies occupying the higher end of the electronics value chain may be more able to capitalise on secular growth opportunities and vice-versa. This means that economies occupying the lower end of the electronics value chain may be less shielded from downturns and enjoy less long-term growth, and vice-versa. On this dimension:

Philippines, Malaysia, Vietnam, and Thailand are at the lower end of the value chain…

- **The Philippines**: 42.9% of electronic exports are concentrated in low value-added semiconductors such as electrical diodes and transistors. Close to half of electronic companies in the Philippines are engaged in low-value assembly and testing for electronics components.

- **Malaysia**: Its electronics manufacturing industry is crucial to the global value chain, accounting for 4.0% of global exports of electrical & electronics (E&E) components and 2.0% of global exports of E&E final products. These shares are on par with Japan. However, while there are companies in Malaysia involved in higher value-added activity such as IC design, R&D, and wafer fabrication, most local electronics firms listed on Bursa Malaysia are still involved in the mid-to-lower end of the value-chain.

- **Vietnam**: Electronics production in Vietnam is dominated by labour-intensive operations outsourced by MNCs. This has led to Vietnam carving out a niche for itself in lower value-added final electronic products. Vietnam now overtakes the US and Japan in exports of printers and photocopiers, and its global share of mobile phone production at 10% is on par with the US.

- **Thailand**: Small-scale enterprises account for the majority of electronics manufacturers in Thailand. Due to limited technological adoption in such firms, they are mostly involved in lower value-added production. Hard-disk drives are still Thailand's top electronic export.

… while Singapore, Taiwan, and South Korea occupy the higher end of the value chain

- **Taiwan and South Korea** are the first and third largest global exporters of high-end ICs. The two firms that dominate high-end IC design and manufacturing in the global market are located in Taiwan and South Korea – namely TSMC and Samsung.

- Many of the world's top semiconductor companies have a presence in **Singapore**, which serves as their regional headquarters, research & development (R&D) centres or advanced wafer fabrication facilities.

As for **China**, it is a global electronics giant involved in both the exports of electronic end-products and components. It accounts for at least half of global exports of personal computers

(PCs) and mobile phones, as well as 17.0% of global exports of E&E components. The expansive nature of China's electronic industry makes it difficult to determine the level of technology it is at. However, with regards to the crucial semiconductor segment of the electronics industry, China still lags behind Taiwan and South Korea in terms of value-added generated. According to the International data Corporation, China is approximately three or four generations behind what is considered leading edge in the semiconductor industry. China's role in the semiconductor industry is instead mainly focused on the lower value-added functions of assembly and testing.

The third measure – economy-specific niches

The niches that each Asian economy possess in electronics manufacturing will also determine its capacity to capitalise on secular growth trends for robust long-term growth. An illuminating example is Malaysia and South Korea. While Malaysia is lower on the value-chain, it is well-positioned to move-up the value-chain in segments related to secular growth. From 2010-2018, Malaysia has been experiencing rapid growth in the exports of electrical components for industrial equipment and medical devices. On the other hand, while South Korea may be further up the value-chain and a global leader in consumer electronics, it is comparatively weak in non-consumer electronics markets (industrial, medical, aerospace, and automotive). Malaysia could be more capable of exploiting secular growth in medical electronics and IoT in industrial equipment than South Korea.

Conclusion

Global electronics demand is poised to weaken but that does not spell doom for Asian economies. However, the outlook for each Asian economy's electronics sector will depend on the unique characteristics of the economy.

Key Drivers of Asian Economies

Variable	Development/Assessment
Asian political risks	
Thailand: Another episode of political manoeuvring	▪ On 24 Aug 22, the Constitutional Court suspended Prime Minister Prayut Chan-o-Cha from office. The court accepted a petition by 171 opposition MPs to investigate whether Prayut had exceeded the constitutional limit on a prime minister's term. The constitution limits prime ministers to only two four-year terms, and opposition members take 24 Aug 14 as the starting date of Prayut's term, when he was made prime minister after the military coup that he led. ▪ Prayut's tenure has been a long-standing topic of debate. Prayut's supporters disagree with the opposition's interpretation but are themselves divided as to whether Prayut's term began in 2017 when the present constitution was promulgated or in 2019 when Prayut became prime minister under the current constitution, following a general election. ▪ Prayut will be suspended from office until the court reaches a verdict but the court has not stated when it will do so. In the meantime, Deputy Prime Minister Prawit Wongsuwan is stepping in as the caretaker PM. ▪ Prayut's suspension is a part of a bigger picture of Prayut's leadership in troubled waters. Last month, Prayut and his cabinet survived their fourth no-confidence vote in parliament, after the opposition accused the government of corruption, mismanagement of the economy and unnecessary accumulation of public debt. ▪ Voters are also dissatisfied with Prayut's leadership, notable events being the 2020 student protests that saw a younger generation call for Prayut's resignation and the ruling Palang Pracharath Party (PPRP) stunning defeat at the May 22 Bangkok city council elections. Out of 50 seats, the main opposition parties the Pheu Thai Party and the Move Forward Party won 20 and 14 seats respectively, while the ruling PPRP only won two measly seats. ▪ Prayut's leadership has also been beleaguered by internal divisions and infighting. Notably, Prayut's relationship with his ally DPM Prawit (also leader of the PPRP) has become increasingly strained. During the latest no-confidence vote, when the opposition attacked DPM Prawit for his role in the 2014 coup, Prawit appeared to have thrown Prayut under the bus by claiming that Prayut had masterminded the entire coup and that he "did not even know it was planned." **Assessment: Negative impacts on the economy are limited for now** ▪ **Prayut's suspension may be a net positive for political stability**: There will be a degree of political frisson with the opposition, factions within the ruling coalition, and elements such as the palace and the military seeking to exploit the situation. But political stability could also

Variable	Development/Assessment
	improve if Prayut's detractors are appeased by his suspension, lowering the risk of political protests. ▪ **Impact on policy should be limited**: Most bureaucratic appointments have been finalised ahead of the civil service's annual reshuffle in Sep/Oct 22, ensuring broad policy continuity at the working levels of government. Early elections are also unlikely as the government will have an interesting in passing the FY23 budget bill and hosting the Asia-Pacific Economic Cooperation (APEC) Summit in Nov 22. Doing so will help to boost the ruling coalition's credibility in the upcoming general elections. Together, these two factors help to ensure that the economic recovery will continue smoothly. ▪ **A comeback of the opposition?**: The opposition Pheu Thai Party has already begun campaigning for the upcoming general elections. Their goal of a landslide victory now seems to be within reach as the ruling party's popularity has been further diminished by Prayut's suspension. Changes to electoral rules also help the Pheu Thai even more possible. Essentially, the calculation method for party-list MPs will allow larger parties such as the Pheu Thai to dominate seats in parliament. Popular support for the Pheu Thai has been strong – in a poll conducted by the National Institute of Development and Administration in Jun 22, Paetongtarn Shinawatra of the Pheu Thai Party was respondents' top pick for the post of prime minister.
Malaysia: The noose tightens around UMNO	▪ **Former Premier and UMNO leader Najib Abdul Razak was hauled to jail** to start his 12-year prison sentence after his final appeal against the SRC lawsuit was dismissed by the Federal Court. When the writing appeared to be on the wall, Najib resorted to last-minute shenanigans in his appeal by flagging fresh evidence in his case and reshuffling his legal team mid-stream and applying for hearings to be adjourned by several months to give his attorneys more time to study the case. And when the courts ruled against him, Najib cried foul at the dearth of fairness in the legal process that smacked of desperation. The remaining recourse for Najib is to file for 1) a royal pardon, or 2) a judicial review, which, unlike an appeal, merely considers whether the legal process was lawful. This is not the end of Najib's legal woes, with 4 other ongoing lawsuits over criminal breach of trust and abuse of power over the 1MDB saga. Najib's conviction will unseat him as the MP for the Pekan federal constituency, unless he files a royal pardon petition. ▪ **All eyes are thus turning to the Agong (King),** who could wipe the slate clean for Najib with a royal pardon, not unlike what transpired in PKR leader Anwar Ibrahim's pardon in 2018. Najib's supporters have summited a memo to the palace seeking a pardon, and an online

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	petition advocating a royal pardon has amassed more than 110,000 signatures at the time of writing. In the absence of a full pardon, Najib would be disqualified from running for elections for 5 years after his release from jail. ▪ **Tensions flared up within UMNO** in the aftermath of Najib's jailing that reeked of desperation as the noose tightened around the so-called court cluster and party leaders embroiled in corruption trials fear they could be next to be hauled to jail. News sources indicated that PM Ismail Sabri, who is UMNO Vice President, was given an ultimatum to dissolve parliament as soon as possible or be sacked by the party during a tense political bureau meeting a day after Najib was jailed. This was later denied by UMNO Secretary-General Ahmad Maslan. But there is a palpable and newfound sense of urgency within the party, as UMNO President Ahmad Zahid, called for an immediate election and a royal pardon for Najib during a special briefing over the weekend. ▪ **The tabling of Budget 2023 has been brought forward** 3 weeks earlier than scheduled on 7 Oct 22 and just 4 days after Parliament re-convenes on 3 Oct 22. The decision to bring forward the budget proceedings was made by the cabinet with PM Ismail Sabri's go-ahead as he comes under pressure to deliver an election budget to sweeten the ground. Assessment: Growing possibility of GE15 this year ▪ **Growing pressure on PM Ismail Sabri to call for early elections**: While parliament has to be dissolved by mid-Sep 23 at the latest, UMNO bigwigs aligned to Zahid and Najib will exert more pressure on PM Ismail Sabri to bring forward elections as the noose tightens around the UMNO leaders. It is telling that Zahid has more than doubled the list of witnesses he intends to call to the stand over his corruption charges, ostensibly to stall the legal proceedings as party leaders are increasingly desperate over the prospect of losing their grip on power and UMNO. ▪ <u>How this pans out will hinge on the ability of the hitherto politically astute PM Ismail Sabri</u> to manage and fend off the pressure from Zahid to dissolve parliament. There is a non-trivial possibility that PM Ismail Sabri, having hung on for more than a year, could call UMNO's bluff and stand his ground to allow the legal process to run its course for Zahid and his coterie of supporters, in the hopes of securing a successful legal conviction that disqualifies them from contesting in GE15. In turn, this is predicated on PM Ismail Sabri's ability to seek refuge across the political aisle if Zahid's faction circles the wagons and turns on the former.

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	▪ **Could fiscal consolidation take a backseat in view of political considerations**? Budget 2023 will most certainly be an election-year budget to sweeten the ground with handouts and generous subsidies. This year's budget deficit, at 6% of GDP, is unlikely to be revised, given that fuel subsidies are likely to nearly triple from the budget MYR31bn as retail prices of fuel are still de-linked from global benchmarks. With growth on firm footing this year and possibly over the next, <u>the authorities will likely slow the pace of fiscal consolidation, bringing the fiscal deficit down to around 5%-5.5% of GDP for 2023</u>. As to whether the budget will move the needle on the level of support for UMNO remains anybody's guess.
Asian economies:	
China: Additional policy measures for a fragile economy	<u>Policy-support stepped up further</u> ▪ The State Council unveiled 19 additional policy measures to support the economy on 24 Aug 22. Total policy support amounts to approximately CNY1tr. The last large-scale fiscal stimulus package was the CNY1.9tr "33-point policy package" released in May 22. The key policy measures are as follows: ▪ Policy banks' lending quota for infrastructure projects will be increased by CNY300bn, on top of the CNY300bn allocated to policy banks in Jun 22. ▪ Local governments will be allocated CNY500bn in special bonds from previously unused quotas. The special bonds are expected to be issued by end Oct 22, a rather short timeframe. ▪ The State Council pledged to approve a batch of infrastructure projects. ▪ Local governments will be allowed to adopt city-specific policies to support reasonable housing demand. ▪ To combat the effects of the heatwave, electricity producers will be allowed to issue CNY200bn in special bonds and CNY10bn in additional agricultural subsidies will be distributed. ▪ Support was signalled for the "development and investment" private businesses and the platform economy. ▪ Policymakers reiterated caution, saying the economy will not be flooded by excessive stimulus. **Assessment: Stimulus measures may not stabilise the economy** ▪ The key question at hand is whether the additional stimulus policies will stabilise the fragile Chinese economy. The 19 policy measures – heavily focused on infrastructure spending – will help to shore up growth but they will not stabilise growth if weak consumer and business expectations persist. The additional policy measures do not address these expectations; only consumption-related stimulus and an easing of Covid-19 measures will be able to. With policymakers

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	reiterating caution in stimulus and the 20th Party Congress fast approaching, it is unlikely that any consumption stimulus or easing of Covid-19 measures will take place. We continue to watch the Chinese economy closely to determine if any downgrading to our 3.2% growth forecast for 2022 is needed. ▪ Additionally, we note a continued pace of regulatory crackdowns. Last week, the China Securities Regulatory Commission (CSRC) launched into an investigation into the broker China Merchants Securities which caused more than 20 IPOs sponsored by the broker to be halted. The China Banking and Insurance Regulatory Commission (CBIRC) has also begun probes into the property loan portfolios of some local and foreign lenders. ▪ Such regulatory crackdowns, while for the right purposes, will be counterproductive to a number of the government's stimulus efforts. First, the government has been issuing window guidance to financial institutions to provide more support to the real estate sector, but bank employees may be unwilling to sign off on such loans for fear of being implicated in misconduct. Second, the government has signaled yet again in the latest policy measures a friendlier business environment for the private sector and the platform economy, but businesses and tech companies could continue to hold back on investment plans as they witness the ongoing regulatory crackdowns in other sectors. Third, the government is stepping up infrastructure stimulus, but government officials may also be afraid to sign off on infrastructure project contracts.
Singapore: Inflation heats up, manufacturing slows down	▪ Inflation reached new highs in Jul 22. On a year-on-year basis, headline inflation reached its highest level since Jun 08 at +7% in Jul 22 (Jun 22: +6.7%), while core inflation reached its highest level since Nov 08 at +4.8% in Jul 22 (Jun 22: +4.4%). ▪ On a month-on-month basis, core inflation and headline inflation rose by 0.6% and 0.2% respectively. ▪ The intensification of core inflation was driven mostly by higher prices of food (+6.1% y/y) and electricity & gas (+24.0% y/y). As for headline inflation, both private transport (+22.2% y/y) and accommodation inflation (+4.6% y/y) picked up further. ▪ Manufacturing production declined further in Jul 22 to +0.6% y/y (Jun 22: +2.6% y/y). Excluding the more volatile biomedical manufacturing sector, manufacturing production grew 2.9% y/y in Jul 22. Contractions were recorded in the electronics (-6.3% y/y) and biomedical manufacturing (-10.8% y/y) clusters, while growth was the strongest in the transport engineering (+18.6% y/y) cluster. Assessment: MAS likely to tighten policy in Oct 22

Variable	Development/Assessment
	▪ Inflation continues to heat up, now firmly above the MAS' forecasts for 2022. MAS forecasts headline inflation at 5-6% and core inflation at 3-4% in 2022. In its Jul 22 off-cycle monetary policy meeting, the MAS stated expectations for inflation to exceed its forecasts in the near term before easing in 4Q22, but it only expected core inflation to exceed 4% 'slightly'. <u>With only one more CPI print left before the Oct 22 monetary policy meeting and a highly uncertain inflation trajectory, we expect the MAS err on the side of caution and tighten monetary policy in Oct 22 in the face of heighted inflationary pressures.</u> Price stability will take precedence over the risk of slowing down growth in the external sector, as further appreciation of the exchange rate will diminish export competitiveness at a time when external demand is already slowing down (as exemplified by this month's manufacturing data). ▪ We also note that inflation is beginning to make a dent on robust consumer spending. Retail sales, when compared with May 22 and seasonally adjusted, fell 1.4% y/y in Jun 22. Sales dipped month on month for many categories, with the largest drops coming from more big-ticket and can-do-without items like computers and smartphones, furniture and household equipment, and recreational products.

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	Year	Growth (%)	Inflation (%)	Current Account (% of GDP)	Policy rate (%)	Currency (vs USD)
China	2021	8.1	0.9	2.8	2.95	6.36
	2022	3.2	1.9	2.2	2.75	7.10
	2023	5.4	2.0	1.4	2.75	6.60
India	FY22	8.7	5.3	-1.0	4.00	74.5
	FY23	7.0	6.3	-3.2	5.75	79.0
	FY24	6.8	5.8	-2.8	5.00	77.0
Indonesia	2021	3.7	1.6	0.3	3.50	14,300
	2022	5.3	3.8	-0.2	4.25	14,750
	2023	5.5	3.3	-1.5	4.75	14,500
Korea	2021	4.0	2.5	5.0	1.00	1,188
	2022	2.5	5.0	3.9	2.75	1,300
	2023	2.0	3.5	3.5	2.25	1,200
Taiwan	2021	6.1	2.0	15.0	1.125	27.5
	2022	4.0	3.0	15.3	1.75	29.9
	2023	3.0	2.0	15.3	2.25	30.5
Hong Kong	2021	6.4	1.6	5.9	-	7.80
	2022	0.5	4.0	5.0	-	7.80
	2023	3.5	3.0	0.7	-	7.80
Singapore	2021	7.6	2.3	18.1	-	1.40
	2022	4.0	5.5	17.5	-	1.38
	2023	3.5	1.9	17.5	-	1.35
Malaysia	2021	3.1	2.5	3.5	1.75	4.18
	2022	6.0	3.0	3.9	2.75	4.40
	2023	5.6	2.5	3.8	3.00	4.25
Philippines	2021	5.6	4.4	-1.8	2.00	50.9
	2022	6.8	5.0	-3.0	4.25	55.0
	2023	6.5	4.0	-2.8	4.00	53.0
Thailand	2021	1.6	1.2	-2.2	0.50	33.3
	2022	3.5	6.0	0.5	1.125	35.2
	2023	4.5	2.5	4.2	1.625	34.3
Vietnam	2021	3.0	2.5	-1.1	4.00	23,300
	2022	6.5	4.0	1.5	4.00	23,200
	2023	6.0	3.0	2.0	4.00	22,500

Source: Centennial Asia Advisors. Forecasts for India are on the basis of the fiscal year ending March. Figures in parentheses refer to previous forecast. Figures in red indicate a downgrade; green signal an upgrade.

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