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Emerging Insight

Thailand – The price of rapid BEV adoption

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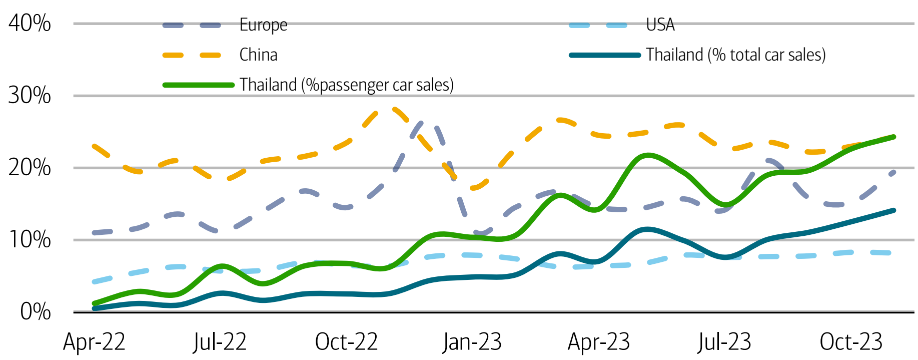
Key takeaways

- Thailand saw a sharp rise in the adoption of battery electric vehicles (BEVs), especially imported Chinese BEVs
- This comes at the expense of the ICE vehicles and parts industry, which is one of Thailand's key production industries
- The key challenge ahead is how to manage the transition and remain competitive as technology shifts

By Pipat Luengnaruemitchai

Exhibit 1: BEV penetration (% of total car sales)
Thailand's BEV penetration rose sharply, surpassing that of the US and Europe in one year



Source: Thailand Automotive intelligence unit, Kiatnakin Phatra Securities

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Thailand in Focus
The price of rapid BEV adoption

Thailand saw a sharp rise in the adoption of battery electric vehicles (BEVs), especially imported Chinese BEVs, boosted by their competitive price points, zero import tariff, and the government's generous subsidy program. This comes at the expense of the internal combustion engine (ICE) vehicles and parts industry, which is one of Thailand's key production industries. While Chinese BEV manufacturers are expected to invest in local production lines to fulfill the commitments under the subsidy program, the domestic value added is much lower than ICE vehicles. The key challenge ahead is how to manage the transition and remain competitive as technology shifts.

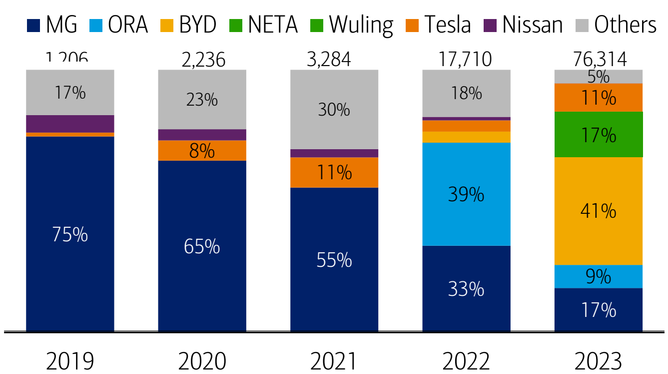
Thailand's rapid BEV adoption

The adoption of BEV in Thailand in 2023 has outpaced expectations, with the sales volume surging from 13,000 in 2022 to 76,000 units in 2023. This accounts for 9.2% of total new car sales (including pick-up trucks) and 17.6% of total passenger car sales. While the penetration rate remains below 25% of China, the pace of adoption is impressive. Most of the new BEV sales were imported from China. This was supported by 0% import tariffs on BEVs through the free trade agreement between China and ASEAN (Association of Southeast Asian Nations), fiscal subsidies for BEVs, a slow moving stance from Japanese car manufacturers, and the competitive pricing of Chinese BEVs compared to ICE vehicles.

Thailand emerges as a promising destination for increased investment by Chinese BEV manufacturers, given the excess capacity in auto production within China and rising geopolitical tensions. The influx of Chinese BEVs is poised to escalate competition, ushering in a price war. Consequently, the prices of BEVs are expected to decrease, accompanied by diverse BEV options in the market. Therefore, Thailand's BEV market is anticipated to remain robust in 2024, with expected sales reaching 100,000 units, accounting for 15% of total car sales.

As challenges remain, we expect the BEV adoption to continue but it should plateau at around 30-35% of total car sales. These challenges include the saturating demand of early BEV adoption in Bangkok, primarily due to constraints in installing BEV chargers in high-rise residential buildings. Meanwhile, upcountry sales are still leaning toward pick-ups for their practicality. Moreover, lower BEV resell values and potential brand loyalty concerns favoring Japanese car over Chinese EVs are identified as key factors shaping the adoption rate.

Exhibit 2: BEV sales by brand (%share)
Intensified competition from Chinese manufacturers



Source: Thailand Department of Land Transport, Kiatnakin Phatra Securities

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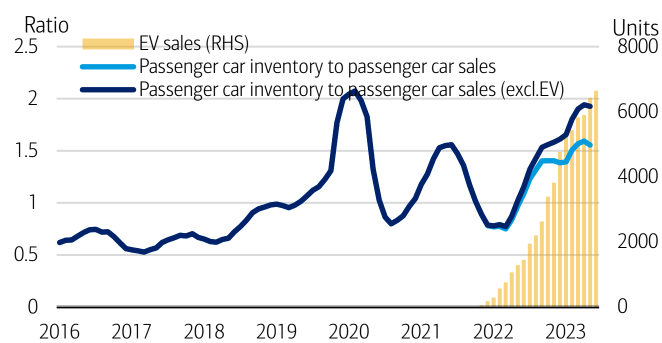
Exhibit 3: Passenger car inventory to sales and BEV sales ratio
The passenger car inventory has increased significantly after the BEV boom



Source: Thailand Office of Industrial Economics, Kiatnakin Phatra Securities

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The automobile sector: hardest hit by EVs

The rapid transition from ICEs to EVs comes at the expense of ICE sales and production in Thailand. The automotive industry and its long supply chains have been a cornerstone of the Thai manufacturing sector for decades, propelling growth and fostering nearly a million of employment. Currently, the ICE auto sector contributes a significant 10-12% of GDP. Ranked as the 11th largest global car producer, the Thai automotive and parts sector stands as the one of the largest export industries, making up 15% of the total export value.

Approximately 850,000 jobs in the auto sector are on the line as a shift from ICE to BEV is expected to reshape the labor market. The supply chain for EVs sees a tenfold reduction from 30,000 components per unit in ICE to about 3,000 in BEV. This could put 40% of auto sector jobs across nearly 1,000 companies at risk, particularly in engines and powertrains. Meanwhile, as Thailand has not been able to produce key BEV components such as batteries, electronic parts, and motors, employment gains for new investment in the BEV sector are unlikely to offset workforce reduction from the ICE industry. Meanwhile, the existing auto supply chain is poised to confront a profit margin squeeze, exacerbated by the influx of cheap Chinese imports.

The BEV impact on the Thai auto market is expected to unfold gradually rather than abruptly as the pick-up segment stands as a buffer, dominating half of the share in both the auto and parts markets. However, the impact of BEV disruption is underway, with its initial effects being felt in the passenger car segment.

Passenger cars at a critical point

Second-tier Japanese manufacturers overtaken by Chinese EVs

While we do not expect BEV adoption wipe-out of ICE anytime soon, the early stages of adoption have started to impact existing car manufacturers. A wider range of price points of Chinese BEV models have bolstered BEV adoption across all segments. As a result, Japanese ICE manufacturers, which have made Thailand their key production hub and market, have lost their market share to Chinese BEV counterparts, in particular second-tier Japanese manufacturers which have witnessed a dramatic 10% loss of market share in the passenger car market. Meanwhile, first-tier Japanese manufacturers such as Toyota and Honda have faced a significant decline in their share of the D-segment (mid-size sedans/family cars) and SUVs (sports utility vehicle). This transition has exerted substantial pressure on ICE inventories surging to unprecedented levels.

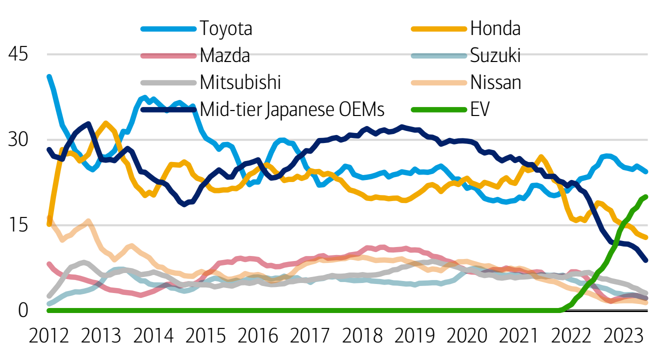
Thailand also losing ground on exports to China

The rapid adoption of BEV in key export markets like Australia and Europe has also led to a significant downturn in passenger car exports from Thailand, resulting in a loss of market share to China. Although there is a shift towards exporting more to the Middle East, it cannot offset the losses in the other key markets. Despite comprising only 35% of total auto export volume, passenger cars drive more than half of the export value for automobiles and parts. This could severely impact export figures and the current account. Moreover, EVs have transformed the export competitive landscape, placing pressure on the goal of Thailand becoming a BEV export hub in ASEAN due to direct competition with China.

Impending production shutdown as utilization rates hit dangerous lows

Japanese manufacturers struggle with dwindling sales both domestically and in the export markets, prompting production cuts to facilitate the inventory drawdown. Despite a slight decline in overall passenger car production, second-tier manufacturers face low utilization rates of 20%-30%, signaling potential losses and shutdown risks.

Exhibit 4: Passenger car sales by brand (%share)
Second-tier Japanese manufacturers witnessed a dramatic 10% loss of share



Source: Toyota Motors Thailand, Kiatnakin Phatra Securities

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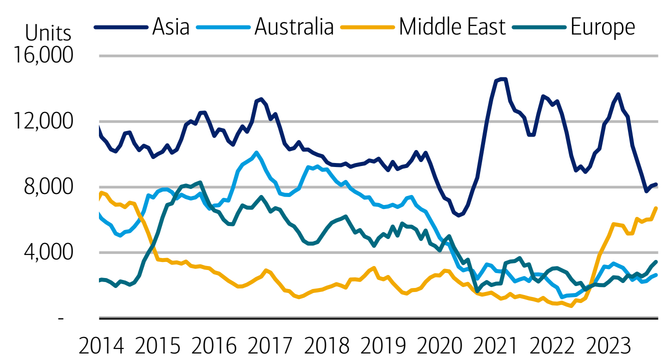
Exhibit 5: Top destinations for Thailand's passenger car exports
Car exports to Australia and EU dropped after China exports took off



Source: Thailand Automotive Intelligence Unit, Kiatnakin Phatra Securities

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Pick-up consolidation is the hope…for now

In contrast to passenger cars, the one-ton pick-up segment is unlikely to face disruption from EVs in the near term, owing to its unmatched price point and distinct functionality. Dominating the auto sector in Thailand, pick-up trucks represent nearly half of domestic sales, 60% of car exports, and 60% of total production. Additionally, local suppliers predominantly serve the pick-up market with a high local content ratio of 90%, while passenger cars only have a 30% local content ratio. The substantial pick-up linkages could extend the impact from EVs in the short run.

The consolidation of the Japanese 1-ton pick-up production in Thailand is anticipated amid declining demand and growing BEV adoption globally. Thailand stands out as the optimal choice, distinguished by its prominence in 1-ton pick-up sales and production. Consequently, pick-up exports benefit from this consolidation, gaining the market share of 1-ton pick-ups in key export markets.

While the production of pick-up trucks remain a silver lining for the Thai automobile industry, the inevitable BEV impact looms on the horizon. The pick-up consolidation is expected to demonstrate similarity to the dynamics observed in the hard disk drive market, implying unsustainable growth. Thailand thrives in the sunset industry, as reflected by the global demand slowdown alongside a domestic downturn. The local pick-up demand has gradually weakened from structural challenges, including demographic shifts and deleveraging cycles. Nevertheless, the risk of unemployment and deteriorating income resulting from the potential shutdown of auto production is expected to indirectly intensify the challenges faced by pick-up sales.

EVs adoption poses a challenge to the Thai economy

With a quick BEV adoption, the automotive industry is facing disruptive pressure. Although Chinese BEV manufacturers are expected to invest in assembly plants in Thailand to fulfill their commitment under the fiscal subsidies, which require local production of 1-2 cars for every car imported and receive rebates and subsidies during the program, the domestic value added from BEV manufacturing is expected to be much less compared to ICE production. According to estimates, the domestic value added of ICE production is 53% of the total value, compared to about 34% for EVs as one-third of auto parts are becoming obsolete and batteries make up a large proportion of the value added. The domestic value added would be much less if Chinese manufacturers rely on the supply chain from China. Thailand is expected to import batteries and electronic parts due to a shortage of local materials and a lack of economies of scale compared to China.

In addition, although Chinese manufacturers are investing in local production in Thailand, it is unclear whether with lower scale and efficiency, locally-produced cars would be as competitive as cars produced in China and whether Thailand can establish itself as a production hub for BEV exports. Due to an increased reliance on imports coupled with declining exports, the current account balance is anticipated to be under pressure, thereby amplifying the risk to the currency in the medium term.

Nevertheless, the uncertainty over the future technology of automobiles continues to pose additional risk in the industry itself. These uncertainties could hinder the adoption and investment in important infrastructure. Nevertheless, the move away from ICE seems to be a global trend. The key challenge for Thailand is to manage the transition and remain competitive as technology shifts.

News and Views

Brazil: Current Account deficit narrowed in 2023

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According to the Brazilian Central Bank's (BCB), Brazilian Current account recorded a deficit of US$28.6bn in 2023, or 1.3% of GDP. This was the narrowest deficit since 2017 (-1.2% of GDP). Compared to 2022, the improvement came from a much stronger trade balance (3.7% of GDP in 2023, from 2.3% in 2022), more than enough to offset a widening primary income balance (-3.3%, from -2.9%). From the funding side, foreign direct investment (FDI) came down from roughly US$$75 bn in 2022 to US$ 62bn in 2023, mostly due to a drop in intercompany loans by almost half (from US$ 17.5bn in 2022 to US$9.1 bn in 2023). Despite the reduction, FDI continued to be more than enough to fully fund the CAD.

Regarding the monthly result, there was a large miss from most analysts compared to actual figures. Recall that BCB usually revises foreign trade statistics every July and November, but they had to postpone 2H23 revision to December (released today). In short, for the Jan-Nov period of 2023, there were small revisions to the CA, but FDI accumulated in the period increased by US$9.6bn, due to higher intercompany loans; CAD in 2022 was 0.3p.p. of GDP narrower (at 2.5% of GDP), due to smaller income from capital holdings; FDI was also revised down by 0.7pp for the same reason, and registered a 3.8%of GDP inflow in 2022.

- **To follow:** External accounts were strong this year, mainly due to the trade balance performance. Regarding YE24, we forecast FDI at US$65bn, while current account should have a deficit of US$41bn.

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