



# Major Automotive Global Trends

September 2023



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## 1. Global

### **Tension between the US and the Chinese auto industry intensifies**

The commercial tension between China and the US started three years ago and intensified as neither side was willing to compromise. At the beginning of August, US President Joe Biden signed an order that certifies the US Minister of Finance to forbid or restrict investments by American companies or companies that receive aid from the US administration in China. The prohibition focuses on semiconductors, micro-electronics, quantum information systems, and AI systems. At least some of these have relevance to the auto industry.

The prohibition is applicable for private capital investments, VC, and JV, and it also relates to investing in Chinese companies that develop computer chip manufacturing equipment and software. It is not applicable, for now, to areas such as biotechnology, investments in traded stocks, investments in index funds, etc.. the American Ministry of Finance mentioned that the new directions would be relevant to future investments and not existing ones, although the latter may include a governmental demand for disclosure of data on past transactions. The order will take effect next year.

According to a statement made by the white house, the order was formed following a consultation with the US strategic trade partners (G7) and included their feedback. Also, it is open to public scrutiny. In reaction, the association of the American semi-conductor industry stated that it hopes the order will enable American semiconductor companies to compete globally and receive free access to major global markets, including China.



As expected, China's diplomatic response was sharp. The Chinese embassy in Washington announced that China is "Very disappointed" with this decision. The embassy spokesperson even said that the white house is ignoring the deep concerns expressed by the Chinese side regarding the order. According to him, "There are more than 7,000 American companies active in China, and these limiting steps will damage Chinese and American companies, disrupt the collaborations, and lower the trust of US investors".

The Chinese Ministry of Foreign Affairs spokesperson said: "China firmly rejects the US imposing a limitation on investments in China in a disguise of national security... their true goal is to deny China's right to develop its interests... it is economic coercion and technological bullying. The American move is violating the international economic and commercial order and damaging the stability of the global supply chain". He claims that China will keep track of these developments and fiercely defend its interests.

According to estimates, this move will affect the Chinese auto industry regarding investments in auto-tech companies that develop advanced chip and AI technologies and were planning to open production lines in China or receive finance from Chinese companies.

## 2. USA

**The US auto industry is under strike threat by the workers' unions; President Biden was forced to intervene**

The swift shift of the American auto industry from producing ICE cars to EVs is accompanied by factory shutdowns and a change in development and manufacturing resources. It creates aftershocks in the American auto



industry and opens a “Pandora’s box” regarding work relations vis-à-vis the strong UAW.

Following the union’s threats to commence a long strike if new wage agreements are not achieved, and a promise to keep production lines in the US is not given, in August, Andersen Consulting published a report about the economic implications of the strike. Company’s analysts estimate that if the union does start a strike, it will cause billions of dollars in damages to the three largest auto manufacturers in the US.

According to the report, if 150,000 GM, Ford, and Stellantis workers strike, the cumulative financial damage for each ten days of strike may come to more than five billion dollars.

Negotiations are coming on the background of growing restlessness among American auto workers that witness yearly record profits for the manufacturers, which flow mainly to the pockets of investors and managers. In contrast, the workers are not rewarded accordingly. The union aspires to reinstate workers’ working conditions and benefits that were taken from them following the financial crisis of 2008 and returned only partially since then. In addition, the union wants working conditions to improve so that existing production lines will keep operating and prevent closure and dismissals even after the shift to EVs.

Following the strike threats. That also has political importance; President Biden released a “Reconciliation statement” and called on the auto manufacturers to seriously treat the workers’ concerns about shifting to EVs. According to him, the industry should verify that the shift is made relatively and enable conversion of existing factories and production lines in the same communities they operate today while preserving the same wages”.



**The American administration is expanding subsidies for EVs and used cars. The expansion is valid for foreign models as well**

The American EV market has grown in the past two years at an impressive pace, aided by a generous subsidy policy of the US administration. However, the Achilles hill of the market was the second EV sector in which demand remained relatively low due to high prices compared with the limited purchasing power of typical secondhand car buyers in the US.

In August, the US administration found the time to close the “Loophole” and announced that used EVs will be eligible, under certain conditions, for subsidies in the form of a tax refund of up to 4,000\$. The addition of used EVs to the subsidy program will also apply retroactively to those purchased from the beginning of January 2023.

According to the regulations, which are an expansion of the Biden administration IRA (Inflation Reduction Act), those purchasing secondhand cars can be eligible for a tax refund of 30% of the car’s value and up to 4,000\$. A list of the eligible models was published on the administration’s websites.

The refund will be given on the condition that the used EV will cost up to 25,000\$ and is at least two years old. The car must be purchased from a licensed dealer, and in the case of a PHEV, it must have a battery with a capacity of at least 7 kWh.

In addition. There are limitations on the purchasers themselves, who need to earn below the average annual salary to be eligible for the subsidy. Whoever receives the bonus will not be eligible for an additional one for three years and will have to use the car within the US and not in bordering



countries. In other words, exporting EVs that received federal funding will not be possible.

Contrary to the “Patriotic subsidies” policy of the American administration, which revokes the benefit from models that are not manufactured in the US or whose battery is not manufactured in the US, foreign EVs will be eligible for the secondhand EV subsidy. This is an easing of the regulations, meant most likely to reconcile the US’s trade partners in Europe and East Asia (Japan and Korea) that suffered from revoking the subsidies for new EVs.

### **NYC municipality to demand that all shared vehicles in its’ area shift to electricity by 2030**

In August, according to the policy, NYC Mayor Eric Adams announced a new “Green mobility” policy that was formed together with the city’s taxi and limousine committee. All shared vehicles operating within its territory, most of them ICE today, will have to shift to electric propulsion by the decade’s end.

Today, taxi driver’s adoption of EVs is still limited due to their high prices and scarcity of fast charging stations, which is crucial for taxi operations. However, the municipality plans to incentivize the shift through local subsidies, combined with federal subsidies that will put BEV taxi prices at par with ICE taxis by 2027. This move completes the demand of the NY state administration to ban the marketing of ICE vehicles in the state by 2035.

Accepting shifting to EVs in the long run, the “Green mobility” strategy includes a few intermediary stages that will be implemented in phases: from 2024, the city will demand that 5% of all taxi and shared mobility drives be



done in EVs. In 2025, it will grow to 15%, and in 2026 to 25%. After that, the percentage will increase by 20% each year up to 100% in 2030.

Earlier this month, the NYC mayor announced that all Uber and Lyft cars (the city's two most dominant shared mobility companies) operating within NYC by 2030 must be zero-emission vehicles.

### **American auto market kept strengthening in August despite high prices. Soaring interest rates for car finance may prove a hurdle in the near future**

New car sales in the American auto market added up to 1.35 million units in August, 20% more than in August 2022, reveals the monthly forecast made by research company J.D. Power. According to current growth figures, the market will reach 15.3 million units in 2023.

Car sales to private customers grew in August by 10.4% compared with last August, the fifth consecutive month with a two-digit growth. However, personal deliveries are still significantly lower than pre-COVID August 2019. The development is led mainly by fleets that are still closing the gaps from the time of inventory shortage of the past two years. Fleet sales grew by more than 45% in August compared with last August.

The average deal price for a private customer kept dropping in August by a mild 1.2% compared with last year. However, it is still high at more than 45,000\$ on average.

Dealer's inventory levels kept growing in August to 1.3 million vehicles, almost 49% more than last August. The dealer's average profit for each transaction stood in August at 3,500\$, 26.4% less than last year but still three times higher than in August 2019.





28.5% of all new cars were sold in August above the MSRP. According to the researchers: “Dealers keep selling new vehicles before they enter inventory, but supply at the dealerships is also steadily growing. 45% of the dealer’s inventories were sold in August within ten days or less, compared with 57% at the peak registered in March 2022. The average inventory cycle of the dealers was 29 days, 19 more than last August but still far from a pre-COVID era when the average time in inventory was 70 days. The average discount from the MSRP was 4%, compared with 1.9% only—last August.

Despite all this, the high-interest rate for car financing still shadowed the market. According to the researchers, the yearly payments on car loans got pricier by 2.7% and reached an average of 729\$ a month. US news agencies also report a growing concern about customers’ insolvency on car loans. The company estimates that EV market share of all US sales this year will reach an all-time high of 9%.

### **J.D. Power new survey: customer satisfaction from the EV charging network in the US is declining**

In the middle of August, J.D. Power published a new survey that looked into the satisfaction of customers from the US EV charging infrastructure. The study that was conducted together with PlugShare research company surveyed over 15,000 BEV and PHEV owners between January and June 2023.

The survey focused on customer experience indexes such as ease of charging, charging speed, the physical condition of the charging station, comfort at the station, possible activities during charging, the feeling of safety during charging, and ease of paying.



According to the results, the satisfaction from the charging experience in level 2 (slow charging) and level 3 (fast charging) public stations in the US fell drastically compared with a parallel survey that was conducted last year. Only Tesla's supercharger users demonstrated satisfaction above average.

The researchers state again that most US customers who are deterred from purchasing EVs are concerned with the lack of available public charging stations. However, the faulty performance of existing stations is also a hurdle for EV mass consumption. According to the report, one of every five attempts to charge an EV failed in the first half of the year, a figure that has not improved since the beginning of 2022.

The conductors of the survey predict that satisfaction levels will continue to decline as more "Mainstream" customers buy EVs. While the early adopters and EV "Ideologists" demonstrated a willingness to overlook charging difficulties, the patience of later customers with these problems will grow shorter.

The company warns operators of charging networks that the problem may get out of control in the future and cause regulator intervention. It should be noted that in Europe and especially in the UK, regulators are now forming steps to supervise the quality of charging services.



## China

### **China has become the most prominent car exporter in the world in H1 2023, led by EVs**

While domestic car sales in China keeps trudging despite governmental attempts to stimulate the market, car export from China keeps breaking records. According to the CAAM (Chinese Association of Automobile Manufacturers), in H1 of 2023, China became the largest exporter of cars in the world, surpassing Japan, after exporting 2.14 million units, a rise of 76% compared with last year. Almost one-quarter of the export was of “New energy” cars, primarily EVs and PHEVs.

In China, it is estimated that the yearly export will amount to 4 million units in 2023, and the share of new energy cars will leap from 22% last year to around 35%. Data shows that most of the growth in car exports during the first half of the year was to Russia, where Chinese brands are almost the exclusive suppliers of new cars after most Western manufacturers froze their activity following the invasion of Ukraine. Only 205,000 units were exported to Europe in the year's first half.

However, analysts state that the American market is still closed to Chinese exporters, and the Europeans are also gradually increasing the barriers through regulation. Also, according to the analysts, the profitability of some Chinese manufacturers in exporting to the West is “Borderline,” and many don't have the required experience to form a large-scale sales apparatus. This fact may send them to “A pit of loss” if market conditions worsen.



### **3. South-Korea**

#### **Car export from South Korea keeps breaking records in July**

According to data from the South Korean Ministry of Trade, published in August, the scope of car export from Korea in July was 5.9 billion US\$ compared with 5.14 billion last July. This is the highest export figure for July ever and the 13<sup>th</sup> consecutive month in which car exports from South Korea registered a double-digit growth.

In the first seven months of the year, car exports from South Korea grew by 41% compared with last year and amounted to 41.5 billion dollars. This is also a new record since it is the first time South Korea has reached such volume in only seven months.

The main reason for the leap is a growing demand for “Green” cars, mainly EVs and PHEVs. Export from South Korea of these two categories grew this year by 36% and was worth two billion dollars in July only. South Korea exported 59,799 “Green” cars in July, a quarter of the vehicles exported that month.

An additional reason for the leap is the stabilizing of the chips supply chain, and their shortage harmed the production and export of Korean cars last year. In July, 352,971 vehicles were manufactured in July, an increase of 8.8% compared to the previous year.

**South Korean government has announced a strategic plan to support the development, advancement, and implementation of AI in Korean industrial products, including vehicles**



On August 17<sup>th</sup>, the South Korean Ministry of Finance declared a list of governmental steps to promote the self-development of AI chips in Korea and advance UAM (Urban Air Mobility) in the state to nurture new growth engines for the Korean economy.

According to the plan, South Korea will accelerate building data centers operated by self-developed AI chips. It will expand financial support for the R&D of such chips, including those intended for autonomous driving. The move is designed to increase the influence of South Korean companies in the global market for AI chips, which is currently dominated by Nvidia and Chinese companies. According to the Korean foreign minister, the government will act to remove bureaucratic hurdles that delay investments today.

South Korea will also form a working group with the participation of various government agencies to choose and allocate a designated band of wireless frequencies for the UAM industry (mainly drones for carrying passengers and cargo or “Aerial taxis”) and for leading the formation of global standards in this field. Also, South Korea will expand the areas where these devices can fly and support delivery services by drones.

Another element in the plan, aimed at accelerating the development of autonomous cars in the state, is an amendment to the privacy act so companies can build geographical databases from video reels filmed by vehicles. Also, the plan will address in the future used EV batteries as a “Resource” that can be recycled for sustainable economic growth. Today, these batteries are treated in Korea as disposable waste.



#### 4. Europe

##### **The EU approves the “Battery Act” meant to ensure efficient recycling of batteries in the next decade**

On August 17<sup>th</sup>, the EU approved the “New Batteries Act” that the EU Commission presented to the parliament last July. With that, it ended almost three years of discussions on this complicated legislation. The new act will replace a former one from 2006, and it deals with all kinds of industrial batteries over 2 kW but puts a particular emphasis on EV batteries.

The new law is meant to order the life cycle of batteries, from production to end-of-use, with an emphasis on three areas: the first is setting milestones for recycling between 2027-2031, each year with a growing number of batteries aiming for at least 80% recycling rate in the EU by 2031. At the same time, the EU set new minimum quantities for the recycling of rare materials such as Cobalt, Nickel, and Lithium; these quantities will also gradually grow.

The second area is mandatory reporting on the “Carbon footprint” of all industrial batteries over 2 kW sold in the EU. Manufacturers and distributors of batteries, including car manufacturers, will have to calculate the carbon emission associated with each battery, from mining raw materials and up to production, conveyance, and recycling, and clearly present the data. This regulation will be enforced from 2024. According to estimates, it may serve as a basis for “Battery taxing” or taxing on EVs.

The third area the act deals with is a demand from all manufacturers and distributors to attach a “Digital passport” and QR codes to each battery, containing the technical data including capacity, performance, what the battery is intended for, date and place of production, etc. these will enable



tracking of the origin of the battery, its' location, and its' condition. The EU will demand that all fellow states form a joint information system to track the batteries, and from 2026 each battery sold in the EU will have to include such a “Digital passport”.

However, analysts estimate that behind the “Batteries Act” stands a hidden agenda of improving the competitiveness of the European battery industry vis-s-vis the Chinese manufacturers. That, among other reasons, is due to the fact that the “Carbon footprint” of Chinese-made batteries, manufactured by using polluted energy (coal), is significantly higher than that of European batteries.

In China, it is thought that the new act will push Chinese battery manufacturers, especially batteries for EVs, to “Migrate” from China and establish factories in Europe to improve their competitiveness. It is mentioned in China that this trend started even before the act got the final approval. Among others, a CATL factory is being built in Hungary and is expected to work at total capacity in 2025. Chinese battery giant Sundowa announced in August that one of its subsidiaries invested hundreds of millions of Euros in the first stage of building a new plant for Lithium-ion batteries in Hungary, and BYD is also in the late stages of finding a location for creating a new battery plant in the continent.

### **France adopts a strong activist line against Chinese EV manufacturers in Europe**

The EU has avoided up until now from taking steps aimed at limiting the export of Chinese EVs to Europe because of the fear of starting a new trade war and the dependence of many countries and industries on Chinese investments and exports to the Chinese market. Strong opposition to such



steps comes from car manufacturing countries in Europe that the Chinese market is critical for them, like Germany.

However, at the same time, EU countries that depend less on China started to crystallize plans to stop or slow down car imports from China. According to recent research by Allians, this import may reach 1.5 million cars by 2030, 13.5% of all new car sales in the EU in 2022.

One of the most activist countries in the front against China is France, which during August made another critical step towards implementing the “Selective subsidies for EVs,” which it declared last May as part of an assistance package to “Green industries”.

In August, the government published the plan for public scrutiny. According to the French finance minister Bruno La Maire, the project “Paves the way for steps that will enable the European auto industry to face a massive entrance of cheap cars from China to the EU.” “ As part of the plan, a subsidy for purchasing EVs in France will be given according to CO2 emission criteria related to the production process in the country of origin. The meaning is that almost all Chinese vehicles will be automatically discriminated against since the energy for their production comes from power stations that run on coal.

The plan is expected to undergo legislation in the European Parliament by the end of the year, and it will deny car manufacturers that don’t meet the criteria from the 5,000-7,000 euros government subsidy for purchasing a new EV. According to La Maire, “The yearly cost of the government subsidy for EVs reaches 1.2 billion euros, and currently, it is given to car models manufactured by polluting industries... I am determined to support the European and French auto industries”.





Yet, La Maire added that France welcomes direct Chinese investments in Europe. It should be noted that several joint ventures for battery production and material mining for batteries between French manufacturers and giant governmental Chinese companies went underway recently. Also, French companies started new projects in China. La Maire states, “We need China as a key partner for global growth”.

### **Contrary to Israel, EV penetration in the C-SUV segment is still minimal**

While sales of C-SUV EVs are registering three-digit growth in Israel, their penetration is still minimal compared with petrol versions in Europe.

According to DataForce research company data, in the first half of 2023, sales of this category in Europe were 1.12 million units, 17% more than last year and 15% of overall sales. This category is also the largest in terms of models, with more than 40 models, starting with mini urban crossovers and ending with family SUVs.

However, the data shows this category remains a “Stronghold” of ICE in Europe. Petrol models represent 68% of all sales in this category in the first half of 2023, hybrids 13%, diesels 7.8%, and BEVs only 4.9%.

In Europe, it is estimated that the main barrier to EV penetration is high prices, despite government subsidies. Another reason is that the petrol versions in this category are considered super-profitable for the manufacturers, whose motivation to develop and manufacture expensive electric versions with extended range is minimal. Analysts assess that this situation will continue to fuel the penetration of cheap electric crossovers from China, the only ones that can break the profitability barrier.



## **London municipality advances scraping of polluting vehicles and expands the circle of those eligible for subsidies**

The London municipality launched during August a new and expanded scraping program for old and polluting vehicles as part of the preparations for announcing London as a ULEZ (Ultra Zero Emissions Zone). The original plan, launched in January, had a limited 110 million BP and was meant for specific groups such as low-income individuals, people with disabilities, and small merchants and businesses with ten or fewer employees.

According to the new plan, with an additional 50 million BP to its' budget, all London residents who own a car or a motorcycle whose emissions don't comply with ULEZ will be eligible for a subsidy of up to 2,000 BP (2,320 euros) when swapping a polluting vehicle with an EV. At the same time, the subsidizing for scraping old pick-ups and mini-buses and replacing them with EVs or low-emission vehicles will also be increased. These vehicles will receive a subsidy of up to 7,000 BP (8,210 euros) for pick-ups and up to 9,000BP (10,440 euros) for mini-buses. Every eligible resident can scrap up to three old vehicles in both cases. As for vehicles for people with disabilities that are designed to carry wheelchairs, the subsidy will be doubled from 5,000 BP to 10,000 BP (11,600 euros). The move made by the London municipality is based on the recognition that old polluting vehicles, some complying with a decade-old environmental regulation, present a substantial barrier on the road to achieving "Zero pollution from transportation".

In the meantime, in August, the House of Lords of the British Parliament announced that it will commence a feasibility examination for the government's plan to ban the selling of ICE vehicles from 2030 and hybrids and PHEVs with small batteries starting from 2035.



The Environment and Climate Change Committee of the House of Lords stated that the examination aims to “Understand how the government plans to fulfill its’ aspirations to zero-emission transportation in Britain”. The study will focus on passenger vehicles and the by-products of the plan. According to the committee’s chairperson, “The moment of truth has arrived, and we cannot achieve zero-emission transportation without changing how people live, travel, and shop”.

Currently, EVs are still more expensive than comparable ICE vehicles, and lowering their prices is critical in making them more popular. The study will also investigate the probability that the existing charging infrastructure in Britain can support the volume of EVs that will roam the kingdom’s roads towards the “Deadline”. The committee requested hearings with industry elements, local authorities, and additional institutions on these subjects.

## **5. Australia**

**Australia is developing an advanced program for decreasing greenhouse emissions from transportation, but New Zealand is way ahead of it**

In the next few months, the Australian government will present a far-reaching plan for decreasing greenhouse emissions from transportation in its territory. The project was formed following international pressure to tighten its’ environmental regulation for motor vehicles, which is lagging Europe by almost a decade.

However, the Australian regulators are facing difficulties in forming a plan that will receive broad public support due to the special conditions in the



country, including extreme climate and vast areas with sparse population, that make the use of EVs nonrealistic for many drivers and limits it mainly to urban centers. In Australia there is also heavy public pressure against tax moves that will cause a price increase of pickups and 4WDs.

At the same time, senior officials in the Australian federal government rejected the possibility that it would adopt an environmental taxing policy on cars like the one its neighbor New Zealand assumed. New Zealand's "Green tax" initiative is a "Fine or reward" system in which ZE vehicles, such as BEVs or hydrogen-powered vehicles, receive a subsidy of up to 4,700 US\$. In contrast, hybrids and PHEVs receive lower incentives.

On the other hand, cars that emit 150 grams/km of CO<sub>2</sub> or more are "Punished" with a higher tax. On the polluting side of the scale are vehicles that emit 260 grams/km of CO<sub>2</sub> or more, like SUVs, pickups, etc., that require an additional purchasing tax of 4,400 US\$.

The government in New Zealand claims that in this system, the surplus taxing on polluting vehicles helps finance the subsidies for vehicles with low emissions. Despite that, the Australian Ministry of Climate Change and Energy spokesperson said the federal government is forming independent reforms focusing on decreasing fuel consumption and efficiency, not "Fine or reward".

## **6. Japan**

**Japan is preparing to upgrade its' EV charging infrastructure to close the gap in EV penetration**

Japan is determined to close the gap in EVs, not only in sales and penetration rate but also as far as charging infrastructure and ease of use. In



August, the Japanese Ministry of Economics, Trade and Industry (METI) published a comprehensive plan to upgrade charging infrastructure in Japan, within which the government intends to ensure that there are electric power reserves for EV charging during hours with high demand. In addition, public charging stations will be deployed along the country's highways at 70 km apart from each at the most, and they will receive government subsidies.

The government also announced this year forming new regulations for public fast charging stations that will require a minimal charging rate of 90 kW, twice the average rate today. Also, the government intends to ease the regulation for ultra-fast stations with a rate of over 200 kW to make their purchasing and installment cheaper.

At the same time, Japan is preparing to change the charging and payment system for charging. According to the plan, the current system, based on setting time (parking time at the station), will be replaced by a system based on the exact sum it costs per kWh. The payment system will also enable "Roaming" between different suppliers without requiring a subscription.

In the first quarter of the year, the penetration rate of EVs in Japan was 2%, one of the lowest among the developed countries. Sales grew this year by almost three times compared with 2022, but most of them were electric micro-cars.



## **7. Israel**

### **Accelerated progress in establishing trade agreements with Asian countries will lead to the cancelation of customs taxes on cars**

Trade agreements between Israel and countries manufacturing cars in East Asia keep accelerating. Following the signing of the free trade agreement between Israel and South Korea in 2022 and the signing of the free trade agreement with Vietnam in July this year, Israel is promoting two additional strategic contracts that may lead to the cancelation of customs tax for many car models that are currently sold in Israel.

The upcoming agreement on the agenda is the one between Israel and China that the two states have discussed for a few years. According to estimates, the first draft of the agreement has already been formulated, and the contract may be signed in the last quarter of 2023 or the first quarter of 2024. However, its implementation in practice may take much longer due to its complexity and many articles. China is one of Israel's main trade partners, and the trade with China includes thousands of sectors and products.

In addition, according to estimates, there is an American objection to this trade agreement that could cause delays in the upcoming signing schedule. An unofficial assessment made by the Ministry of Finance estimates that the signing of the contract will decrease 250-350 million NIS yearly in the country's revenue from customs tax on motor vehicles.

The Israeli financial media reported that recently, there has been substantial progress in the negotiations for a trade agreement between Israel and Japan. In the past, Japan refused to enter negotiations for such an agreement, fearing it could hurt its' local agriculture sector. Still, recently, the two countries started preparing to establish a contract, among other things,



because of the ones Israel reached with other dominant countries in the region. It should be noted that even today, before the agreement is signed, a large portion of the Japanese cars imported to Israel is exempt from customs tax since it is manufactured within the EU.

Hezi Shayb, Ph.D.  
CEO – I-Via

A handwritten signature in black ink, appearing to be "H. Shayb", written in a cursive style.