Ivent Solutions Market Trend Update
July 2022

Does Ukraine Have A Technology Sector?

As in most countries, the pandemic has been a major drag on Ukraine's economy. As lockdowns disrupted local markets and global trade ground to a halt GDP contracted by 4.4 percent in 2020 and exports fell by 4.6 percent. The war has now added to this disruption significantly. But was the Ukraine ever a real player in the technology sector that we are all so familiar with?

The cities of Kyiv, Lviv, Kharkiv and Dnipro are considered the tech hubs in Ukraine and business has been on the up and up in the times prior to the war. The country's rapidly growing IT industry saw exports grow by 20.4 percent in 2020 crossing $5 billion for the first time, according to figures from the National Bank of Ukraine. The boom also showed no sign of easing off, says Alex Chubay, the chief technology officer of SoftServe, one of the country's largest IT companies with HQ's in Lviv and Austin, USA "There is a huge acceleration," he says. "Traditionally we are growing fast at 20-30% year over year, but this year has seen that increase to 40-50% growth." The pandemic has forced an unprecedented shift from the physical to the digital world as entire workforces go remote and the bulk of commerce shifts online. Companies across the world have had to undergo rapid digital transformations leading to surging demand for IT services.

Ukraine's tech industry was well positioned to capitalize on this opportunity thanks to the dramatic evolution it has undergone in recent years. Since the first IT companies appeared in the mid-1990's the sector has experienced a meteoric rise. Today it accounts for 4 percent of GDP and employs roughly 200,000 people, boasting some of the country's highest salaries. Much of this growth has been built on outsourcing. But while in the early days the main sell for international customers was the ability to hire competent programmers at lower prices, as the industry has matured the value proposition has shifted considerably, says Chubay

"It's not about the cost anymore, it's about the expertise and ultimate outcomes," says Chubay. "We have moved up the value chain. We have become more holistic, and we are gaining more and more responsibility over bigger chunks of our client's businesses.". Over the years Ukraine's leading companies have expanded from the basics of software development to higher value work like systems architecture, business analysis and experience design. At SoftServe, Chubay says they are no longer simply supporting customers' engineering, and IT initiatives, they are in the boardroom helping CEO's transform their businesses to be more competitive in an increasingly digital world. "We see an increasing role for companies like ours to help them capture value upstream before it becomes a set of engineering projects," he says. "We see more demand on the disciplines able to deliver organizational level change not just product level impact."

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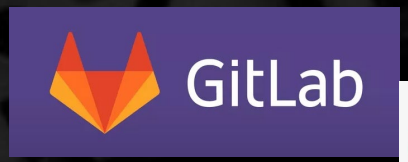

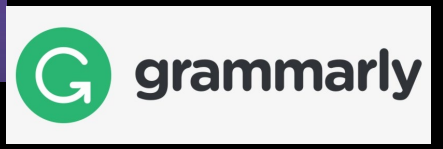

Counterintuitively, much of the credit for this rapid expansion in capabilities goes to the country's Soviet past, says Valery Krasovsky, the CEO of Sigma Software Group, which is based in Kharkiv. That might come as a surprise considering the USSR was more often associated with bureaucratic inefficiency than entrepreneurial dynamism. But a long-standing focus on high-quality education, particularly in technical disciplines like math, physics, and engineering, laid the foundation for a workforce naturally adept at the most challenging technical roles such as designing system architectures or managing entire IT infrastructures, says Krasovsky. "This ingredient is very important as it gave us the possibility to show that we are not just an affordable country where you could order basic software," says Krasovsky. "If you are well educated in these disciplines, you have much better ability to design the big computer systems. Not just program them, but design and create the architecture."

This flair for creation has also seeded a flourishing start-up scene. Last year, a record $571 million was invested in Ukrainian or Ukrainian-founded tech companies and the country has produced several unicorns - start-ups valued at more than $1 billion - including software development platform **GitLab** and online writing assistant **Grammarly**. The IT sector has played a vital role in this ecosystems development, says Krasovsky. The expertise, contacts and capital built up within the industry over the past couple of decades has laid the groundwork for a new generation of entrepreneurs to strike out on their own, he says.

Krasovsky sees enormous potential for synergy between the IT industry and newer start-ups. That's why his company has set up an incubator called Sigma Software Labs to help nurture new talent and he has also teamed up with senior colleagues at Sigma to start a venture capital fund called Inspirium Laboratories. "We are the perfect gateway for them to get into the markets where we have a presence," he says. "It's win, win. We help our customers to find innovative ideas and we help our start-ups to find customers."

This combination of plucky start-ups and experienced IT services companies is creating a vibrant ecosystem that is drawing a growing number of major corporations, including Google, Samsung and Oracle, to set up R&D centres in the country. It is also catching the eye of investors looking to get in on the ground floor of one of Europe's most dynamic tech hubs.

Ivent Solutions Market Trend Update
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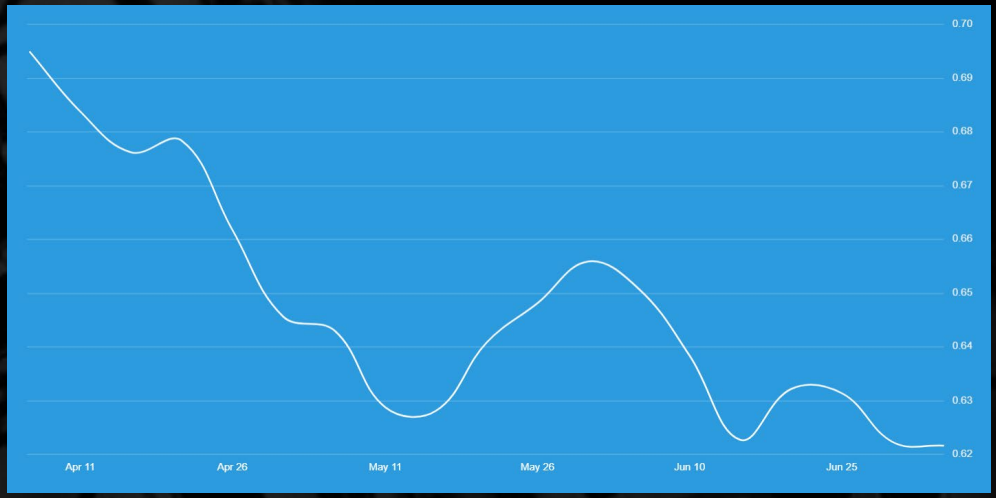
Bank forecasts for the NZ Dollar

Banks expect the New Zealand Dollar (NZD vs. USD) to slowly rise above 70 US cents in 2022. However, bank experts agree there are many risks that could impact the accuracy of this prediction. Although the easing of lockdowns and better conditions for commodity exports is helping New Zealand's economy, international borders are only now slowly starting to open up to neighbouring countries.

New Zealand will therefore continue to struggle, because the country relies on tourism for more than half of its exports. This means that while the average forecast shows the NZD improving in 2022, things could turn negative very quickly (as has been seen in recent months). Fortunately, banks predict the US dollar will remain weak in 2022, which should provide some level of support to the NZD.

Uncertainty from the coronavirus pandemic increases volatility in currency markets. Generally, safe-haven currencies like the USD, CHF and JPY could move higher. However, commodity currencies such as the AUD, NZD, CAD and ZAR exchange rates could fall.

Currently, the reverse is true. The USD is falling, which is supporting commodity currencies including the NZD. We can summarise as follows with what is affecting our currency on global markets…



- Coronavirus pandemic continues to impact New Zealand's economy, plus tourism and imports/exports are taking a huge hit.
- China's economic growth slows even more than expected from the coronavirus pandemic, reducing China trade and lowering demand for NZ imports.
- New Zealand's economy continues to slow, the Reserve Bank of New Zealand cut interest rates earlier than expected, devaluing the NZD.
- Inflationary pressures meaning further interest rate cuts in both New Zealand and our trading partners
- The coronavirus pandemic is controlled, the US economy picks up and the Federal Reserve (central bank) increases interest rates, supporting the USD

Ivent Solutions Market Trend Update
July 2022

1.7 Million People Put Under Lockdown In China

China placed 1.7 million people under lockdown in central Anhui province, where authorities reported nearly 300 new cases on Monday in the latest of a string of outbreaks testing Beijing's "no-tolerance" approach to COVID-19. China continues to be the last major economy still clinging to a zero-Covid strategy, responding to all cases with strict isolation orders and tough testing campaigns. The outbreak in Anhui, where officials first found hundreds of cases last week, comes as the Chinese economy begins to rebound from a months-long lockdown in Shanghai and disruptive Covid restrictions in the capital Beijing. Two counties in the province, Sixian and Lingbi, announced lockdowns last week, with more than 1.7 million residents only permitted to leave their homes if they are getting tested. Footage from state broadcaster CCTV showed empty streets in Sixian over the weekend and people lining up for their sixth round of mass testing in recent days. The province reported 287 new infections on Monday, including 258 people who had no symptoms, according to China's National Health Commission, bringing the total cases found to just over 1,000.

Provincial governor Wang Qingxian urged local authorities to "seize every minute and earnestly implement quick screening" as well as rapid quarantine and reporting of cases, in a statement published by the Anhui government on Monday. Neighbouring Jiangsu province also reported 56 new local infections across four cities on Monday… While cases remain low relative to China's vast population, officials insist the zero-Covid policy is necessary to prevent a healthcare calamity, pointing to unevenly distributed medical resources and low vaccination rates among the elderly. But the strategy has hammered the world's second-largest economy and the heavy-handed enforcement has triggered rare protests in the tightly controlled communist country. China's international isolation has also prompted some foreign businesses and families with the financial means to make exit plans. National authorities announced a reduced quarantine requirement for international arrivals last month, rallying most Asian markets as investors hoped the move could provide a boost for Beijing's Covid-slumped economy. But health official Lei Zhenglong has insisted the new quarantine policy was "absolutely not a loosening of (Covid) prevention and control".

Ivent Solutions Market Trend Update
July 2022

Semiconductor average lead time breaks half-year barrier

We all know the global chip shortage has been bad, though here's a new data point: semiconductor lead times grew to an average of 26.6 weeks in May. For those who have, in this era of perpetual pandemic, understandably forgotten how calendars work, this means it now takes chipmakers more than half a year, on average, to deliver a variety of semiconductors, from memory and power management chips to microcontrollers to clock and timing electronics through to analog and discrete components.

This figure came from a privately distributed report on semiconductor lead times from financial analyst firm Susquehanna, which compiles data from the industry's largest distributors. It said that after two months of chip supplies improving, the average lead time increased by two days in the last month.

Rather than talk about the CPUs and GPUs that soak up headlines about shortages, Susquehanna's report zeroed in on small but critical components that go in everything from PCs and servers to cars and a wide variety of electronics, and even that is underselling their pervasiveness. Susquehanna said there were a variety of events that impacted the supply chain in the first quarter, including Russia's invasion of Ukraine, an earthquake in Japan, and two pandemic-driven lockdowns in China. The firm suspects the effects of these may linger for the rest of the year.

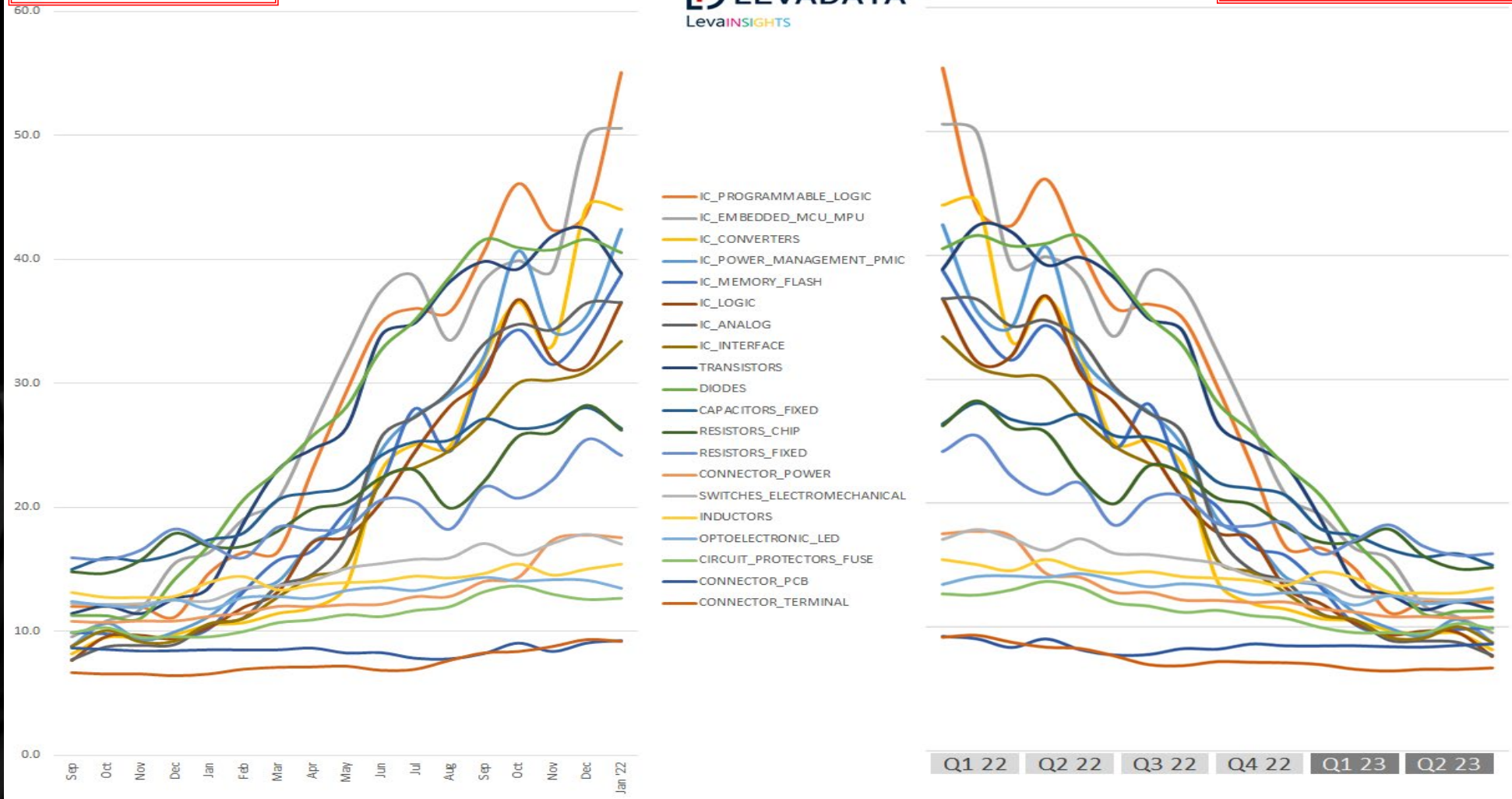
As the report lays out, the lead times for these semiconductors have worsened since the winter of 2020, when it took an average of 13.9 weeks to get these parts delivered. Susquehanna said May 2022's 26.6-week lead time, which grew by two days from the previous month, represents the highest overall average wait-time of semiconductor components it's seen since it started collecting data in 2017.

Out of all the semiconductors that saw increased waiting periods, analog chips, which handle all sorts of things from signal amplification and oscillation to power control, saw the biggest hike, adding an extra delay of 18 days in the space of a month. This brought the average lead time for those specific parts to more than 30 weeks. Additionally, a survey of electronic engineers revealed complaints of lead times of up to 50 weeks for certain microcontroller units… with no improvement yet on the horizon.

Leadtime Trends (weeks)

LEVADATA
LevaINSIGHTS

LevaMirror Forecast Perspective



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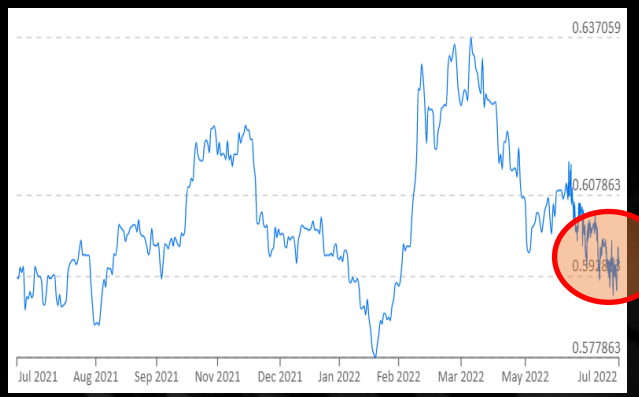
NZD versus AUD - AU$0.905 vs NZ$1.00

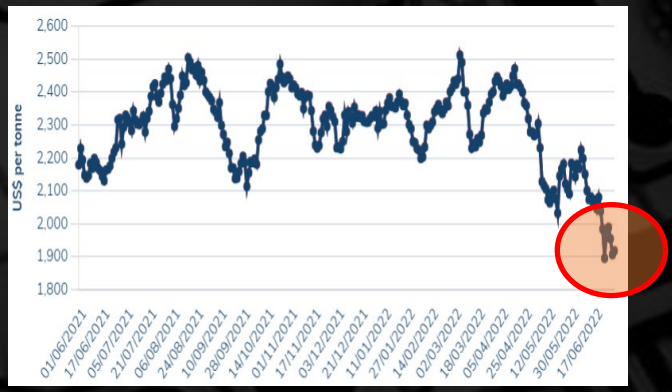
NZD versus USD - US$0.620 vs NZ$1.00

NZD versus EUR - EU$0.600 vs. NZ$1.00

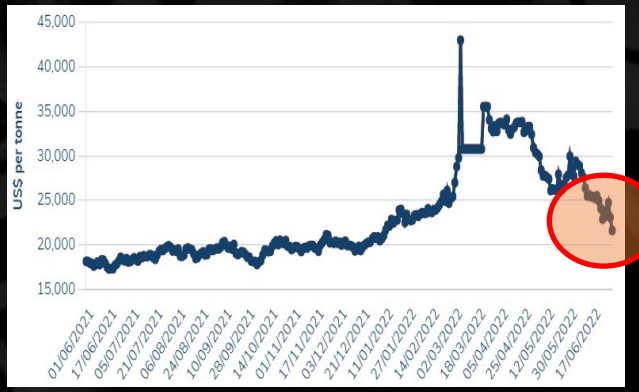


Copper - USD8000 / tonne

Lead - USD1900 / tonne

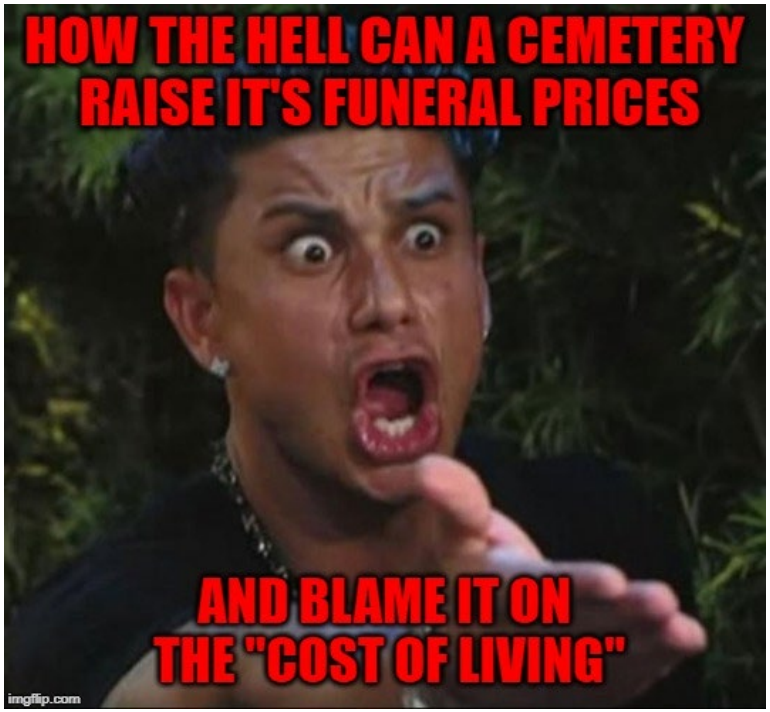


Nickel - USD21500 / tonne



Ivent Solutions 15 Year Anniversary


a life worth living
goodmeme
the costs of basic needs
young adults


HOW THE HELL CAN A CEMETERY RAISE IT'S FUNERAL PRICES
AND BLAME IT ON THE "COST OF LIVING"
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Petrol


CAR FAINTS AFTER SEEING THE PRICE OF FUEL


GAS
263
272
284
623
672
684
2021
2022


Fuel Pricing
My Salary

This Month in Tech History…

July 12, 1949 – At an IBM sales meeting, Thomas J. Watson Jr. predicts that all moving parts in machines would be replaced by electronics within 10 years. Watson's visionary ideals of where the fledgling computer industry might go helped lead his company to dominance in production of all varieties of computers, from workstations to personal computers.

July 2, 1953 – IBM announced its 650 series of computers, which were used during the remainder of the decade. The IBM 650 stored information on a rotating magnetic drum and received it on programmed punch cards. Its memory stored numbers with up to 10 decimal digits.

July 4, 1956 – MIT's Whirlwind, which had been completed five years earlier, becomes the first computer in the world to allow its users to enter commands through a keyboard. Previously, all input was accomplished through dials, switches, and/or punch cards.

July 1, 1979 – The first Sony Walkman, the TPS-L2, goes on sale in Japan. It would go on sale in the US about a year later. By allowing owners to carry their personal music with them, the Walkman and their iconic headphones introduce a revolution in listening habits and popular culture at large.

July 5, 1994 – Like many other iconic tech companies that we know today, Amazon began in its founder's garage. Jeff Bezos realized the internet's potential and launched it early on to establish it as a go-to destination for online shoppers. Originally founded as "Cadabra," Bezos's lawyer misheard the company's name as "cadaver" over the phone, and Bezos realized a name change was in order. He settled on "Amazon" because of its exotic sound and that it would appear near the top of an alphabetic list. He registered the amazon.com domain on November 1st, 1994.

July 1, 2007 – Nearly 6 months after it was introduced, Apple's highly-anticipated iPhone goes on sale. Generally downplayed by Old Word Technology pundits after its introduction, the iPhone was greeted by long lines of buyers around the country on that first day. Quickly becoming an overnight phenomenon, one million iPhones were sold in only 74 days. Since those early days, the ensuing iPhone models have continued to set sales records and have completely changed not only the smartphone and technology industries, but the world as well.

July 10, 2008 – When Steve Jobs announced the iPhone in 2007, it sent waves throughout the tech world. But, as groundbreaking as the iPhone was at launch, it lacked several crucial features such as cut/copy/paste, multitasking, and 3G support. However, there was one feature that would eventually come to define the usefulness of the iPhone that Jobs was initially against adding: the App Store. He felt that opening up the iPhone to third-party developers would put the device at risk for viruses and introduce low-quality software into Apple's walled-garden experience.

CHINA HOLIDAYS 2022

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JANUARY

						01
02	03	04	05	06	07	08
09	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

FEBRUARY

Chinese New Year

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13	14	15	16	17	18	19
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27	28					

Lantern Festival

MARCH

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APRIL

Qingming Festival

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MAY

May Day

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29	30	31				

JUNE

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JULY

Dragon Boat Festival

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31						

AUGUST

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SEPTEMBER

Mid-Autumn Festival

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OCTOBER

National Day (Golden Week)

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NOVEMBER

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27	28	29	30			

DECEMBER

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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Ivent Solutions

15 Year Anniversary

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