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Southeast Asia in the US-China Tech Rivalry I.
The Business Sector in Focus

Délkelet-Ázsia az USA és Kína technológiai háborújában I.

Fókuszban a vállalati szféra

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Abstract: Due to the unique opportunities provided by its digital economy, Southeast Asia is a major arena of market expansion for US-based and Chinese tech juggernauts today. For now, the presence and strategy of the two nation's companies in the ASEAN region has been driven by market considerations. At the same time, social media platforms and mobile operation systems can serve as sources of soft power, which means that Big Tech and ASEAN start-ups could drift into the US-China conflict in the future. In the Southeast Asian market, US tech giants do not have to worry about being crowded out by their Chinese counterparts in the short run; at the same time, China's growing economic influence in the region undoubtedly boosts the technology investments of its companies. It is a core interest of ASEAN nations to avoid taking a side in the US-China tech rivalry and thereby escape the role of being a mere data source for some global digital platforms or US-based and Chinese tech companies.

Keywords: China, USA, ASEAN, tech war, digital economy

Összefoglalás: *A digitális gazdaságban rejlő kivételes lehetőségeknek köszönhetően Délkelet-Ázsia az amerikai és kínai technológiai nagyvállalatok terjeszkedésének egyik kiemelt térsége napjainkban. A két ország vállalatainak jelenlétét és stratégiáját egyelőre piaci megfontolások vezérlik az ASEAN régióban. A közösségi média platformok és mobil operációs rendszerek ugyanakkor egyfajta soft power forrásai lehetnek, emiatt fennáll a lehetőség, hogy a big tech, illetve rajta keresztül az ASEAN start-upjai is egyre jobban belesodródnak az USA és Kína konfliktusába. Délkelet-Ázsiában az USA tech óriásaink nem kell attól tartaniuk, hogy kínai vetélytársaik egyhamar kiszorítják őket a régió piacáról, ugyanakkor Kína növekvő súlya a térség gazdasági életében minden bizonnyal elősegíti a kínai tech beruházások növekedését. Az ASEAN országok alapvető érdeke, hogy ne kelljen valamelyik fél oldalára állniuk az USA és Kína közti technológiai rivalizálásban, és ez által nagyobb esélyük legyen elkerülni, hogy alárendelt szerepet játszva csupán az adatforrás szerepét töltsék be néhány globális digitális platform, illetve amerikai és kínai tech nagyvállalat számára.*

Kulcsszavak: *Kína, USA, ASEAN, technológiai háború, digitális gazdaság*

INTRODUCTION

While Southeast Asia is one of the fastest-growing regions of the global economy, the potential of its technology sector is also remarkable. According to the analysis of Google and Temasek and Bain & Company, the growth of the internet economy of the region will surpass earlier expectations and reach a value of USD 360 billion by 2025. The relatively young population of the region is getting online exceptionally fast, with 40 million new users registered in 2020 alone. It is even more significant that 94% of new internet users plan to keep using digital services post-COVID, indicating that digital transition is not expected to slow down. Not surprisingly, the start-up ecosystem of Southeast Asia is also expanding at breakneck speed: by October 2021, 35 technology companies were already evaluated as unicorns (a privately held start-up valued at over USD 1 billion). According to estimates, the aggregate value of start-ups in the region will triple in five years, reaching USD 1 trillion by 2025. Naturally, the huge market potential has also been discovered by venture capital firms. In the first half of 2021 deals were completed in a record value of USD 10 billion, surpassing the annual level of 2020.

Beyond the economic opportunities and geopolitical interests, this spectacular development of the technology sector is also a reason why the ASEAN region has been placed in the frontline of the rivalry between the US and China. The two great powers are making diplomatic and economic efforts to draw Southeast Asian countries into their orbit. In principle, the region could take advantage of this rivalry, which was reflected in the initial statements that expected the ASEAN nations to be winners of the US-China trade war. Today it is evident that the tariff has had a diverse effect on the ASEAN economies, although it is difficult to dispute the fact that the trade conflict between the two superpowers has created new opportunities for the region.

This two-part policy brief explores whether the escalating tech war is creating opportunities or risks for the ASEAN region. The first part evaluates the US-China tech rivalry at the corporate level, also exploring the consequences for Southeast Asia. The second part of the policy brief analyses the implications of the tech war for the region in the field of digital infrastructure and data governance.

COMPETITION BETWEEN US-BASED AND CHINESE TECHNOLOGY COMPANIES

On the surface, the presence of the two countries in the ASEAN digital economy is manifested in the activity of the big tech companies. Beyond the digital economic potential described in the introduction, a cheap IT talent pool, low costs of company formation, support from the local governments, and investment programs all make the region attractive. Therefore, US-based and Chinese tech giants do not need any geopolitically motivated pressure from Washington and Beijing to be keen to open offices and regional hubs in Southeast Asia. In fact, US tech companies appeared in the region relatively early, and Microsoft and Yahoo already had 100 million users in the region in 2006-2007. The strategy of US companies was traditionally based on organic growth and cooperation with local partners, and they focused large-scale investments and acquisitions mainly on Europe and Japan, and later on India and China. In contrast, Chinese tech companies have considered Southeast Asia an obvious market for expansion and tended to pursue a more aggressive acquisition and development strategy in the region, exemplified by the recent investments of Alibaba and JD.com. At the same time, the strategy of their Chinese competitors and the growing attention towards the region is also affecting the activities of US companies, and large-scale business deals play an increasingly important role in their regional expansion. The investments of Facebook and PayPal in the Indonesian super app Gojek or the strategic investment of Microsoft in the Singapore-based ride-hailing company Grab all reflect this tendency. At the same time, in some cases US-based and Chinese tech giants are shareholders in the same Southeast Asian start-up, for example, Google, Tencent, and JD.com are co-owners of Gojek. This also highlights the fact that the operations of US and Chinese tech juggernauts in the region is mainly driven by market interests rather than geopolitics.

Although the motivation to make profit could explain the activity of US and Chinese companies in Southeast Asia, another relevant issue is whether their market expansion boosts the soft power of their home countries and thereby plays a role in the rivalry between the US and China. The data management and content moderation practices of dominant technology and social media platforms like Facebook and Tencent have had a strong impact on the evolution of data governance and technology regulation in certain countries. Mobile operating systems may also serve as sources of technological soft power, through which the developer can influence the regulatory environment and the architecture of mobile internet at the country level. US-based companies have fairly good positions in this field: while the devices of Samsung, Xiaomi, or Oppo are dominant in Southeast Asia, most of them run some version of Android OS, while Apple offers its own operating system. Moreover, the list of the most popular mobile applications reflects a massive US dominance in the region: in the prominent ASEAN economies, apps developed in China are not ranked among the five leading apps (Figure 1).

Figure 1
The most popular Android apps (as of 11 January, 2022)

	Malaysia	Indonesia	Philippines	Singapore	Thailand	Vietnam
1.	Google	WhatsApp Messenger	Facebook	Google	Facebook	Google
2.	WhatsApp Messenger	Google	Messenger	WhatsApp Messenger	Google	Facebook
3.	Facebook	Youtube	Google	Facebook	Youtube	Zalo
4.	Youtube	Facebook	Youtube	Youtube	Messenger	Youtube
5.	Google Chrome	Peduli Lindungi	Google Chrome	Google Chrome	Line	Messenger

Note: Data was not available for Brunei, Cambodia, Myanmar, and Lao PDR.

The ranking of top websites shows similar patterns (Figure 2), as only Shopee can be considered a company of Chinese interest.

Figure 2
Most visited websites (as of 1 December, 2021)

	Malaysia	Indonesia	Philippines	Singapore	Thailand	Vietnam
1.	google.com	google.com	google.com	google.com	google.com	google.com
2.	youtube.com	youtube.com	facebook.com	youtube.com	youtube.com	youtube.com
3.	facebook.com	facebook.com	youtube.com	facebook.com	facebook.com	facebook.com
4.	whattsapp.com	instagram.com	twitter.com	instagram.com	twitter.com	zalo.me
5.	shoppee.com.my	twitter.com	messenger.com	twitter.com	pgjazz.com	vnexpress.net

Note: Data was not available for Brunei, Cambodia, Myanmar, and Lao PDR.

In light of Figure 2, it comes as no surprise that among search engines Google has at least 95% market share in the countries of the region (based on statistics as of December 2021), and there is no ASEAN economy where Chinese-developed Baidu could reach a share of 1%. Analysing further the link between large tech companies and soft power, it is not difficult to see that a mobile app, a social media platform, or an internet search engine may influence society's attitude towards global politics or a given country. A good example is the Chinese company ByteDance, the developer of TikTok, which acquired the Indonesian start-up company and its news aggregation app, BaBe in 2018. According to Reuters, Babe had to remove news considered critical of the Chinese government and censor keywords such as 'Tienanmen'. BaBe commented that before setting up a local moderation team, they had had some moderation practices that were not appropriate for the Indonesian market, but these practices had been terminated since then. Given the benefit of doubt, the case can be considered a stage in the learning curve of Chinese companies where they realise that they must abandon political reflexes that are natural in their home market. Nevertheless, this case shows how Big Tech can offer tempting opportunities when it comes to the US or the Chinese government's desire to draw Southeast Asian nations into their orbit.

The above-mentioned venture capital boom targeting local start-ups can also be considered a part of tech giants' market expansion, as most US and Chinese venture capital firms are linked to large tech companies like Alibaba, Tencent, JD.com, Facebook, Google, PayPal, or Microsoft. Thus, venture capitalists mostly follow the interest of the parent company that – as reflected by the previously mentioned example – has effective tools for supporting the goals of the homeland government. It is difficult to foresee whether this scenario is only a theoretical possibility, or if it is going to emerge as common practice in the future. Western observers have very little tangible information on the relations of the Chinese leadership and the large tech companies of the country. What is certain is that in 2021 Chinese regulators introduced a series of measures to increase control over large technology companies, especially those that had been planning an IPO abroad, and the Chinese state has acquired a minority stake and a board seat in the main domestic subsidiary of ByteDance. Although the year 2021 clearly highlighted the power relations of the Chinese government and the local technology sector, it is early to tell whether Chinese Big Tech will become a tool for Beijing's geopolitical ambitions in Southeast Asia. As for US-based companies, the influencing ability and willingness of the state can be evaluated at another level due to the different nature of the political system. However, in an escalating conflict it may easily happen that Washington will try to make the most of its tech companies' influencing capabilities against China.

Another issue is whether the expansion of Chinese tech giants in Southeast Asia is linked with the Digital Silk Road (DSR) initiative. Western analysts tend to label every Chinese investment in the regional digital economy as a DSR-project, and due to the pressure for compliance with Beijing's goals, the companies themselves often express their support for the initiative as well. However, the case of Indonesia, a cornerstone country of the ASEAN's digital economy, shows that Chinese venture capitalists are more motivated by market trends than geopolitical statements. Indonesia has not signed an agreement with China on the DSR, yet the country is in the focus of the regional expansion of Chinese tech companies. This orientation does not originate in China's geopolitical interests but rather in the booming local start-up ecosystem. Five years ago, the country had no unicorns at all, while today there are six such companies. It is no coincidence that US venture capital pays similar attention to the tech companies of Indonesia.

IMPLICATIONS FOR THE ASEAN NATIONS

The growing attention of US-based and Chinese tech companies towards the region provides opportunities for the local start-up ecosystems to raise funds and build business relationships that contribute largely to the further development of the technology sector. At the same time, this cannot be seen as a consequence of the US-China technology war, even if the region is increasingly becoming a front line of the rivalry between the two great powers.

The technology boom provides an opportunity for the less-developed ASEAN countries to leapfrog in the development of their digital economy. In Myanmar, entire generations leap over traditional banking services to get directly accustomed to digital finances and fintech. This is partly due to the fact that the rate of access to the mobile network skyrocketed from 10% to 95% in just six years. However, rapid transition comes with risks, as regulation is embryonic, and local governments and companies are unprepared to address data security challenges. This means easier operating conditions for competing Chinese and US companies in countries like Myanmar, but it reflects the responsibility of foreign enterprises at the same time. Besides, the early stage of tech regulatory and data protection may provide an opportunity for the great powers to increase influence by pushing their own data governance model in the region.

While the technology boom may help certain countries to leap over stages of digital transition, this will not terminate disparities in the technology sector of the region. On the one hand, multinational tech companies tend to establish more subsidiaries in economies that attract more greenfield FDI in general, and ASEAN countries are far from homogenous in that respect. On the other hand, the sharp rise in the number of unicorn companies is mainly the success of Singapore and Indonesia. Interestingly, the level of exposure to the consequences of the US-China tech decoupling does not correlate with the development level of the digital economy in a given country. According to FDI trend analyser Investment Monitor, those countries will be caught mostly in the crossfire of the intensifying tech rivalry where the tech sector depends highly on US companies while China is a more important diplomatic partner. Beyond that, those countries are the most exposed to the effects of the US-China tech war and to being forced to take sides in the rivalry where subsidiaries of US and Chinese companies are equally significant players of the local tech sector. Based on data from Investment Monitor, in Southeast Asia it is primarily Vietnam, and to a lesser extent Indonesia, that has to face such risks. As for Vietnam, the country's huge reliance on high-tech export substantially amplifies this exposure. The model of Investment Monitor shows that Vietnam has the highest exposure globally to the possible consequences of the US-China tech war.

The rivalry of the two great powers may also have a negative impact on corporate tech investment plans in the region. This was the case in 2018, when President Trump blocked Singapore-based Broadcom on national security grounds to take over Qualcomm, a US company engaged in the 5G business. Analysts said that one reason behind prohibiting the deal was that based on earlier experiences, Broadcom was supposed to halt 5G technology-related investments at the US-based company, which would have supported the superiority of Chinese Huawei in this field. The rivalry of the two great powers may generate further difficulties for tech companies in Southeast Asia. The interagency committee authorized to review foreign investment in the US (the Committee on Foreign Investment in the United States, CFIUS) has started to screen China-related fundraising of companies that have no exact operations in the United States but the shares of which are listed on an American stock exchange. The above-mentioned Singapore-based Grab also falls into this category, as its shares are listed on NASDAQ, which means that in the future the company may have to choose between a potential Chinese investor and its presence on a US stock exchange.

CONCLUSIONS

Along with the progress of tech decoupling, the US and China are expected to increasingly isolate their tech markets from each other, therefore the competition between US-based and Chinese companies will be transmitted to developing countries. Although Western media regularly publishes opinions that Chinese tech giants already outperform their US counterparts in many respects, the competitive situation is more complex. Data from Investment Monitor show that the US is the dominant tech investor in 131 countries, only in Samoa, Uzbekistan, and the British Virgin Islands do Chinese tech subsidiaries outnumber their US counterparts. The rankings of the most popular mobile apps and websites presented in this policy brief highlight the fact that US tech juggernauts do not have to worry that Chinese competitors will soon displace them in the Southeast Asian market. At the same time, the growing share of China in the trade volume and FDI stock of the region will undoubtedly assist the increase of tech investments of the country.

In the tech dimension, ASEAN nations are likely to pursue a similar strategy to that in other fields of the conflict between the two great powers, which is to avoid taking a side as long as possible. Indonesian tech start-ups have been successful in that regard so far. For example, both US and Chinese companies are represented in the ownership structure of Gojek, and Indonesian unicorns have also been successful in raising funds both from US-based and Chinese venture capitalists. However, there are headwinds that call into question whether this balancing strategy can be maintained in an escalating great power rivalry, which is expected to make the tech sector even more politicised.

The findings of this policy brief inidcate that the presence and strategy of US-based and Chinese tech companies in the region has mainly been driven by market considerations so far, and the geopolitical rivalry of the two countries is not currently decisive at the corporate level. Nevertheless, due to the soft power aspects of technology, there is a chance that Big Tech and the successful start-ups of the ASEAN region could drift into the US-China conflict in the future. In fact, Chinese regulators' 2021 crackdown on domestic tech companies has made this scenario more likely. In contrast with the financing and other business opportunities generated by the increased attention of US and Chinese companies, this can be considered the greatest risk of the tech war for the ASEAN digital economy.

If using a given mobile app in Southeast Asia becomes an act of taking sides in the US-China tech war, it will strongly hinder the ASEAN's aspiration to pursue a unified digital economy strategy that is based on its own values. A cornerstone of that strategy should be the aim of moving up in the global data value chain to avoid merely being a data source for some global digital platforms and US-based and Chinese tech companies. What is really at stake for the ASEAN nations is whether they will remain a periphery in the data-driven global economy while the US and China continue to play a central role.