Public Consultation Report and Policy Statement on Generative Artificial Intelligence and Competition

Taiwan Fair Trade Commission

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I. Preface

Generative artificial intelligence (GenAI) has rapidly developed since 2022. In addition to text, GenAI can generate images, music, and audiovisual content. The development of GenAI has substantially affected economic and social activities as models, applications, and infrastructure have evolved. Breakthroughs in artificial intelligence (AI) technology underpin the current digital economy and have the potential to enhance productivity and efficiency and reshape industrial structures and market competition. Although GenAI can considerably enhance innovation and has numerous applications, increasing market concentration along the GenAI value chain and the gradual formation of GenAI ecosystems may increase potential risk to the market competition.

To survey thoroughly the structure of Taiwan's AI-related industry supply chain and the evolving competitive dynamics, the Taiwan Fair Trade Commission (TFTC) published a "Public Consultation Paper for Generative Artificial Intelligence and Competition"[1] on July 18, 2025. The Public Consultation Paper outlines the market structure and key characteristics of the GenAI sector and provides an overview of current developments in the hardware supply chain, model development, and application deployment. The Public Consultation Paper also identifies the principal types of conduct that may raise concerns under Taiwan's Fair Trade Act (FTA). The TFTC conducted a public consultation from July 18 to September 7, 2025, inviting the public and stakeholders to share industry experiences and provide their opinions to inform the TFTC's enforcement approach associated with GenAI.

The consultation solicited public comments from stakeholders such as domestic and international enterprises, industry associations, consumers, and government agencies and from sectors such as computers, semiconductors, cloud services, and digital application services. The TFTC sincerely appreciates the participation of all parties. The submitted comments provided valuable insights into the current conditions and competitive dynamics of the GenAI industry and will assist the TFTC in

[1] Taiwan Fair Trade Commission (TFTC), "Public Consultation Paper for Generative Artificial Intelligence and Competition" (Jul. 18, 2025).

assessing potential risks to competition. The TFTC hopes that it will continue to receive support from relevant stakeholders in its market studies and research initiatives.

This document summarizes the comments made during the public consultation. To facilitate public understanding of the consultation process, the results of the consultation are presented as comprehensively as possible without compromising privacy or divulging trade secrets. The TFTC recognizes that as AI technologies evolve and applications expand, innovation may rapidly alter current market structures and competitive dynamics. Accordingly, this document provides a preliminary overview of the competition law currently applicable to GenAI and of the TFTC's current enforcement approach. The TFTC will continue to adjust its enforcement approach as technological developments and industry conditions evolve to preserve market competition and promote technological innovation.

II. Public Comments on the Nature of GenAI and the GenAI Industry Landscape

1. Questions and Feedback on the Nature of GenAI and the GenAI Industry Landscape

Question **(**1): Should any revisions be made to the TFTC's description of GenAI and the current state of the industry[2]?

Public Comments:

Although the public comments generally agreed with the TFTC's description of the nature of GenAI and its industry landscape, they indicated that this description reflects the current condition of the industry. The competitive landscape of markets affected by AI is expected to continue to evolve dynamically. Furthermore, GenAI is likely to become a general-purpose technology applicable to various products and services. Several companies are attempting to use GenAI to enhance their core products; however, regulatory frameworks that are unclear or overly stringent may adversely affect companies' willingness to promote AI innovation.

- GenAI involves legal frameworks for copyright, personal data, and ethics. Enterprises therefore need to invest resources in compliance management, risk control, and legal review. However, if regulations are unclear, overly stringent, or impose excessively high compliance costs, they may adversely affect enterprises' willingness to enter the AI industry or promote innovation.【Domestic semiconductor company】
- GenAI is a "general purpose technology" that can be embedded in workflows, products, and services. It can work across numerous modalities and be adapted to a wide range of tasks, from drafting documents and designing visuals to analyzing financial data and writing software. 【Foreign cloud service provider】
- (1) We agree with the TFTC's overall description of the current state of the GenAI industry. Although AI is a nascent technology, it is a transformative general-purpose technology and will have the potential

[2] Including the definition of GenAI, market structure (divided into the three layers of infrastructure, models, and deployment/applications), and market characteristics. *Id*. at 1–12.

to influence various sectors of society and the economy.

(2) Taiwan has a strong foundation in semiconductor innovation, a vibrant startup ecosystem, and a clear technology strategy. Competition between GenAI models can strengthen local capabilities and provide alternatives to vertically integrated AI providers.

【Foreign foundation model developer】

- The "narratives" outlined reflect a point in time view of AI and we anticipate AI will continue to undergo significant future change shaped by the competition we see in the sector.

【Foreign cloud service provider】

2. Questions and Feedback on Key Inputs for Developing and Deploying GenAI

Question (2): In addition to computing resources, data, and specialized talent, what factors are essential to the development and deployment of GenAI (e.g., capital and energy)? Please explain the importance of these factors to market entry or expansion.

Public Comments:

In addition to computing resources, data, and specialized talent, the public comments generally indicated that capital, energy, and regulatory compliance costs are key market entry thresholds that pose barriers to small and medium-sized enterprises in particular. However, some comments indicated that, given that new market entrants are currently flourishing, several of these key inputs may not constitute barriers to market entry. Furthermore, the future development of AI-enabled end-user devices may reduce reliance on cloud computing.

- Key inputs required for developing and deploying GenAI applications comprise capital and cash flow, energy and electricity, compliance and security mechanisms, distribution channels and system integration, portable assets related to data and models, and high-quality traditional Chinese corpora in specialized domains.

【Domestic cloud service provider】

- The entry of numerous companies into the AI industry within a short period indicates that key resources have not yet constitute major

barriers to market entry.【Foreign foundation model developer】

- In addition to computing resources, data, and specialized talent, the development and deployment of GenAI depend on factors such as capital, energy, and the soundness of the regulatory environment. A lack of regulatory support that can match the pace of technological developments may hinder the growth of GenAI. Given that Taiwan has limited specialized talent and natural resources, its ability to compete with other countries with limited resources must urgently be addressed.【Domestic semiconductor company】

- The uncertainty of return on investment in adopting GenAI is a major challenge to market growth. Information services providers have generally reported that although they have integrated AI functionality into certain products, users often regard such functionality as an inbuilt feature and are unwilling to pay extra for it. However, service providers must bear the costs of developing and maintaining this functionality, which adversely affects their profit margins.【Domestic industry association】

- A systematic GenAI ecosystem should be established to connect chip design, hardware modules, operating systems, application layers, and service platforms to promote the continual expansion of the industry. In such an ecosystem, AI-enhanced personal computers (PCs)[3] serve as edge-side terminal devices that distribute cloud computing workloads, reduce inference costs, and enhance real-time responsiveness and privacy protection. As terminal devices evolve, they may break the oligopoly of a few major players.【Government agency】

- Liquidity is a major barrier for Generative AI-oriented start-ups, as demonstrated by the gravitation of promising start-ups from otherwise strong Asian research bases like Taiwan and Singapore to the more promising funding ecosystems in the U.S.【Foreign industry association】

[3] AI PCs are personal computers with strong computing and data processing abilities and that are integrated with AI technologies.

III. Public Comments on Development of the GenAI Industry

1. Questions and Feedback on Difficulties in Obtaining Computing Resources (e.g., Graphics Processing Units[4])

Question (1)：What difficulties do enterprises encounter in developing or acquiring computing resources (e.g., graphics processing units [GPUs])?

Public Comments:

Currently, computing resources are preeminently dependent on GPUs produced by Nvidia, and units cost hundreds of thousands of U.S. dollars; these prices are difficult for ordinary enterprises to afford. In addition, building and maintaining servers requires technical expertise and support personnel, which increase costs. However, some views suggest that, besides self-built, several alternative options for obtaining additional computing resources such as cloud services or shared facilities are available. It is worth noting that several large technology companies are also actively investing in the in-house development[5] of AI chips as alternatives to Nvidia GPUs, although the progress of such development remains to be seen.

- The construction, maintenance, and management of GPU servers involve certain technical thresholds and require personnel with specialized expertise, which may pose barriers to market entry and expansion for some enterprises.【Domestic semiconductor company】
- (1) Chips capable of handling AI workloads that can serve as alternatives to Nvidia GPUs are increasingly being developed.
  (2) Taiwan supplies 83% of the world's servers and 90% of its AI servers. Semiconductor designers, cloud service providers, and AI developers worldwide are therefore highly dependent on Taiwan.
  【Foreign cloud service provider】

[4] Graphics processing units are a type of semiconductor chip designed for image display and graphics processing. Because of their excellent parallel computing capabilities, which enable them to process large volumes of data simultaneously, GPUs are well suited to the development of GenAI.

[5] The release of Google's Gemini 3 model and its in-house AI chip, the TPU (tensor processing unit), has presented one alternative to Nvidia. See "Will Google TPU Challenge NVIDIA's Dominance? ", *Business Today*, (Dec. 3, 2025); and "Gemini 3 Trained Entirely on In-House Chips! Google Accelerates TPU Commercialization—Is NVIDIA's Dominance Beginning to Weaken?", *Global Views* (Dec. 7, 2025).

- Procurement costs are high. A single Nvidia DG H100 can cost more than US$300,000; in addition, the costs of storage, networking, and electricity required for AI training are substantial. Small and medium-sized enterprises in particular often find it difficult to afford AI computing infrastructure.【Government agency】

- Nvidia is an extremely active investor in AI start-ups, and has given special allocations of its chipsets to these start-ups accordingly. Most recently, Nvidia announced an investment of up to $100 billion in OpenAI. This has enabled these start-ups to enter and expand in the provision of AI-ready cloud services.【Foreign cloud service provider】

- While customers have multiple options for obtaining compute capacity they need (on-premises solutions, cloud-based services, co-located environments etc.), certain Taiwanese regulatory requirements could potentially restrict customers' computing resource choices. One example is legislation that requires certain data to be held locally. The "Taiwan Regulation Governing the Production and Management of Electronic Medical Records in Healthcare Institutions" requires local storage of electronic medical records in principle, effectively excluding the use of offshore computing resources.
  【Foreign cloud service provider】

2. Questions and Feedback on Cloud Service Providers and Whether Other Foundation Model Providers Are Excluded from the Market

Question (2): Which companies in Taiwan provide cloud services? When enterprises require cloud services to develop or deploy AI models, which cloud service providers (CSPs[6]) do they most commonly adopt, and why?

Public Comments:

In principle, enterprises adopt CSPs on the basis of their unique needs, and most do not partner exclusively with a single CSP. In practice, enterprises most often partner with large international CSPs because these afford advantages in terms of technology, scale, and

[6] The services provided by CSPs comprise infrastructure such as servers (IaaS), computing platforms for software development and testing (PaaS), and various software services (SaaS). See also TFTC, *supra* note 1, at 6–7.

service diversity. However, domestic CSPs in Taiwan such as Chunghwa Telecom Hicloud and Taiwan AI Cloud are also competitive. When government sovereignty concerns or data security and protection requirements are involved, the cloud services of domestic providers may be preferrable.

- (1) Enterprises first select the most suitable, high-performing large language model (LLM) on the basis of their needs before adopting a CSP. For example, to integrate with tools such as Microsoft Office, they may choose Microsoft Azure's Copilot suite. For applications such as optical character recognition (OCR) processing, they may choose Google Cloud Platform, which offers AI models with higher recognition accuracy.
  (2) Due to factors such as data gravity,[7] the continuity of system architectures, or preferential pricing, GenAI applications may be deployed with the CSPs with which enterprises have partnered.
  (3) Based on regulatory requirements imposed by competent sector authorities, as well as information security and data protection requirements, GenAI is only employed on servers located on our premises.【Domestic cloud service provider】

- When developing or deploying AI models, our company typically uses AWS,[8] Azure,[9] or GCP.[10] Our company requires their abundant global computing resources, mature technologies, support for a wide range of AI development tools, comprehensive ecosystems that support multiple AI frameworks and stable services that comply with international certification and information security requirements.【Domestic semiconductor company】

- In addition to global CSPs, there are increasing domestic CSPs which provide highly attractive and competitive products, particularly Taiwan AI Cloud (the fourth-largest cloud provider in Taiwan, supported by Taiwania 2) and Chunghwa Telecom's Hicloud (container as a service, CaaS) cloud computing services.【Foreign cloud service provider】

[7] Refers to data and applications becoming increasingly integrated; as data sets become larger, transitioning them across providers becomes increasingly difficult.
[8] Amazon Web Services, the cloud service platform provided by Amazon.
[9] Microsoft Azure, the cloud service platform provided by Microsoft.
[10] Google Cloud Platform, the cloud service platform provided by Google.

- In our experience, most businesses do not work with just one particular cloud provider. Rather, customers choose IT providers based on the specific problems they need to solve and whether the provider can meet their requirements. For example, for a flight operator who needs real-time data access may be more likely to use the databases, which are optimized for sub-millisecond latency, alongside other IT services, than a customer who does not need to access the databases with such a speed.【Foreign cloud service provider】

- Enterprises in Taiwan often partner with large international CSPs, and one of the reasons is that such a partnership typically provides strong security measures, high scale and stability, robust data security and technical support, and the ability to provide IaaS[11] (infrastructure), PaaS [12] (development and testing platforms), and SaaS [13] (AI development frameworks, tools, and applications) and enable one-stop solutions for development, deployment, and monitoring needs.【Domestic industry association】

Question (3): Do large CSPs such as Google, which develop their own foundation models, [14] exclude other foundation model developers from obtaining computing power? If so, how do they do so?

Public Comments:

The public comments did not indicate that large CSPs have openly sought to exclude foundation model developers from obtaining computing power. However, in terms of resource allocation, computing power may be prioritized for proprietary foundation models or those developed by partners. In addition, commercial arrangements such as computing power prioritization, exclusive partnerships, and the bundling of proprietary chips may increase the difficulties experienced by other foundation model developers in obtaining computing power.

[11] IaaS is the abbreviation for Infrastructure as a Service.
[12] PaaS is the abbreviation for Platform as a Service.
[13] SaaS is the abbreviation for Software as a Service.
[14] Foundation models are the basis of GenAI. These models are trained on large volumes of data and can be applied to text or image generation and various other tasks. Foundation models can also be fine-tuned to users' needs. See also TFTC, *supra* note 1, at 4–5.

- Under current conditions, the three major international CSPs[15] operate respectively AI platforms capable of integrating multiple third-party models while also offering their own proprietary models. However, because incentives to allocate resources are present, "strategic investments/partnerships" may result in some enterprises receiving preferential access to computing resources or distribution channels, increasing risks to competition.【Domestic cloud service provider】

- Large CSPs do not openly exclude other foundation model providers from using their infrastructure. In practice, however, they often engage in a form of "soft exclusion" through institutional arrangements and commercial terms that substantially increases the difficulty of obtaining access to high-performance computing resources for external foundation model developers. Common soft exclusionary practices comprise (1) computing power prioritization and quota mechanisms: Internal model teams and large strategic clients are granted priority access to computational resources; (2) exclusive or semi-exclusive partnership clauses: Investment or cooperation agreements often include provisions granting priority in the use of certain cloud services or models, restricting other partners from adopting competing cloud infrastructures or models; (3) closed bundling of proprietary chips and cloud services: Certain chips can only be accessed through certain cloud platforms; and (4) price and condition discrimination: Offering substantial cloud discounts or bundling model application programming interfaces (APIs) with cloud services.
  【Domestic industry association】

- Our company advocates for a multi-cloud approach and customer choice. The tools we provide reduce technical barriers, promote interoperability (the ability of systems to operate across cloud platforms), enhance users' ability to conduct multi-cloud operations with other CSPs, and help AI developers reduce technical dependence on a single CSP to avoid vendor lock-in. Maintaining openness in the cloud services market is the most effective means of avoiding the concern raised by the TFTC that "the large tend to become larger."
  【Foreign cloud service provider】

[15] Microsoft, Google, and Amazon. See also TFTC, *supra* note 1, at 6–7.

- OpenAI models are currently primarily deployed on Azure, whereas Google's proprietary tensor processing unit (TPU) resources tend to serve Gemini. Other foundation model providers such as Anthropic and Mistral have also obtained computing support through investments from major CSPs.【Government agency】

3. Questions and Feedback on Transaction Terms for Cloud Services and Switching CSPs

Question (4): What are the terms of transactions for cloud services (e.g., pricing structures, data egress or traffic fees, or other terms or restrictions)?

Public Comments:

Cloud service pricing is predominantly "usage-based," with billing based on central processing unit (CPU)/GPU usage time, network traffic, or token[16] use. Other models include subscription plans, prepaid arrangements, and long-term contracts in exchange for discounts.

- Cloud services are predominantly priced on the basis of computing, storage, and network transmission (including egress fees to the Internet). Charging egress fees is a common practice (with tiered pricing based on region and usage) and a major cost factor that must be considered when switching CSPs. In addition, transaction terms may require signing long-term contracts in exchange for discounted pricing.【Domestic cloud service provider】

- The transaction terms for cloud services typically involve pricing and usage restrictions. Pricing is predominantly usage-based, being calculated on the basis of hourly CPU or GPU rental rates, storage capacity, network bandwidth, or token consumption. Subscription-based or prepaid plans are also available. Some services may additionally charge data egress fees and impose conditions such as minimum usage requirements or contract periods. Enterprises therefore need to evaluate the cost structures and flexibility of such arrangements before adopting them.【Domestic semiconductor company】

[16] Tokens refer to the basic unit of text processed by LLMs. See also TFTC*, supra* note 1*, at 1.*

- We offer pay-as-you-go pricing, where customers pay only for the individual services they need, for as long as they use them. We do not require long-term contracts and do not charge termination fees if customers choose to leave. We have never charged customers a standalone fee to switch to another IT provider.
  【Foreign cloud service provider】

Question (5): Large CSPs each have their own ecosystems. Is switching between CSPs easy? If users wish to transition to a different CSP, must they bear switching or migration costs (e.g., data egress fees)?

Question (6): In the cloud services market, do users typically adopt a multi-homing approach (using services provided by several CSPs simultaneously) or a single-homing approach (using the services of only one CSP)? Why?

Public Comments:

The majority of enterprises adopt a multi-homing strategy, and CSPs often provide support for interoperability and data portability across foundation models and cloud services through cross-platform operations and automated migration tools that reduce barriers to switching CSPs. Nevertheless, differences between CSPs in API[17], permission architectures, and ecosystem integration persist. Consequently, when enterprises migrate to new CSPs, their system architecture may require redesigns, new models, and retraining or refactoring code in addition to data egress fees.

Adopting a multi-homing strategy not only enables enterprises to leverage the advantages of different CSPs but also helps diversify data and operational risks, and enhances bargaining power. However, small and medium-sized enterprises may adopt a single-homing strategy because of their limited resources and personnel, which may increase the difficulty of switching CSPs.

- (1) Different cloud service platforms have distinct ecosystems and services. If users wish to switch CSPs, they incur substantial costs

[17] It is a software interface that facilitates operability between computer programs.

(including those associated with differences in service interfaces, rebuilding identity and access management systems, data egress fees, and risks of service downtime), which may result in vendor lock-in.
(2) Large enterprises tend to adopt a “multi-homing” approach. However, once startups or small and medium-sized enterprises establish partnerships with large CSPs, they often become highly dependent on these platforms because they lack financial support or have infrastructure that is heavily integrated with large CSP, which may lead to barriers in switching ecosystems.
【Domestic cloud service provider】

- (1) We do charge customers to use our proprietary global network to transfer data, but a fee is only charged if the transfer exceeds free tier in which over 90% of our customers fall into the free tier. The fee is charged regardless of the reason why the data is being transferred and we do not know the reason why a customer is transferring data across its network. Therefore, it cannot be said that the fee is for the purpose of preventing a customer from leaving us.
  (2) We support interoperability of FMs produced by third-party developers with our services. We also support the industry standard protocols, data formats, and software that customers require to operate workloads spanning across clouds. There is no barrier to switching between different IT or cloud providers.
  (3) It will always be the case that the costs for migrating to a different cloud provider depended on how the customers configure their workloads and their existing IT solutions. AI is increasing making it easier for customers to switch or manage IT solutions across different IT environment.【Foreign cloud service provider】

- (1) The difficulty experienced in switching CSPs depends on the depth of product integration with cloud platform services. Migration is easiest when users simply utilize cloud virtual machine resources and rarely use other platform services such as storage or databases. The most difficult cases involve services that are deeply tied to proprietary cloud offerings, which cannot simply be “exported and re-imported;” instead, resources must be invested in redesigning system architecture, migrating models, and retraining or refactoring related code.
  (2) The AI cloud services market is currently predominantly

characterized by a multi-homing ecosystem. Companies that use a single CSP are typically early adopters or those with limited resources seeking to reduce complexity and costs. Different CSPs have distinct strengths, and spreading data across multiple CSPs can enhance an enterprise's resilience in the event of disasters or attacks.
【Domestic industry association】

- Different CSPs have developed distinct ecosystems, AI frameworks, storage formats, and API interfaces. If users wish to migrate from one CSP to another, they often need to refactor code, make compatibility adjustments, pay egress fees, and manage the risk of service interruptions, which creates barriers to migration.【Government agency】

- (1) Currently, most cloud services for GenAI process data on a temporary basis and do not store them long-term; therefore, switching or migration between CSPs has yet to become common.
  (2) Our company currently adopts a multi-homing strategy, using resources from multiple CSPs simultaneously to diversify operational and technological risks, minimize overall costs, and flexibly combine each platform's advantages in pricing, functionality, geographic distribution, and compliance requirements.
  【Domestic semiconductor company】

4. Questions and Feedback on Data Access

Question (7): When enterprises train AI models or provide AI products and services, what are their primary data sources, and what are the transaction terms (e.g., pricing structures, charging mechanisms, and restrictions)?

Question(8):What difficulties are encountered in obtaining the aforementioned data? Please specify these difficulties and explain why such data are valuable.

Public Comments:

The principal sources of data noted in the comments comprised enterprises themselves, the government, and synthetic data sets. Data are generally difficult to obtain, and may pose legal risks if the data are not public information provided by governments. Common transaction

terms for obtaining data include restrictions on use, whether data may be used for further training or fine-tuning,[18] rights to commercial output, auditability and downstream liability, and restrictions on handling sensitive data (such as restrictions related to de-identification and storage location). It is widely recognized that data are important for model training and applications. However, it has also been pointed out that data volume is not the only key factor; quality and diversity are also crucial. Accordingly, a company's competitive advantage does not depend exclusively on data accumulation; it also depends on the company's innovative approaches to organizing and understanding them.

On the other hand, the types of data required and the means by which these data are accessed are evolving. For example, with the development of multimodal foundation models, data demand may shift from text corpora toward audio-visual data. Some views also suggest that synthetic data may in the future surpass real-world data in practical use. In addition, when models are developed for specific industries, required data tend to be industry-specific rather than general-purpose.

- (1) The principal sources of data for GenAI enterprises comprise enterprises themselves, public repositories of governments, and synthetic data sets.
  (2) Data that do not originate from government sources are often difficult to obtain, and the legality of such data can be difficult to verify; consequently, mitigating compliance risks still poses a major challenge. Because the performance of AI models is highly dependent on the quality and diversity of the data used to train them, insufficient or biased data may cause models to produce biased responses, hallucinate, or fail to be effectively deployed in practical.
  【Domestic semiconductor company】

- Competitive advantage does not result from data accumulation (data are often repetitive, may be non-exclusive, and easily become outdated) but from innovative organization and interpretation of these data. Therefore, data advantages may not constitute a persistent entry barrier

[18] Fine-tuning refers to additional training of a pre-trained model to optimize it for specific tasks or domains. Fine-tuning a model for specific commercial fields or applications can enhance performance.

to market competition. Because different applications require different data types, the data required for certain applications may require sourcing from several sectors.【Foreign foundation model provider】

- (1) Model pre-training depends heavily on large data sets from publicly available sources. Another major source of data is synthetic data, artificially generated data used to simulate real-world data and address problems such as the scarcity of real-world data, privacy concerns, and algorithmic bias. By 2030, the use of synthetic data in AI training will surpass that of real-world data.
  (2) High-quality data derived from "Reinforcement Learning from Human Feedback (RLHF)" are key to training and fine-tuning models. Such data require humans to "rate" them or "apply" them to fine-tune AI models; the costs of generating such data are higher than those associated with other data sources.
  (3) The development of "video/image modalities" and "multimodal foundation models" has expanded the range of data sets available to foundation model developers and created opportunities for smaller startups to develop data sets.【Foreign cloud service provider】

- (1) Common limitations on data acquisition: comprise restrictions on use, on whether data may be used for further training or fine-tuning, on commercial rights to model outputs, on auditability and downstream liability, and on handling sensitive data (such as requirements related to de-identification and storage locations).
  (2) Major difficulties in accessing data: comprise the scarcity and high cost of high-quality representative data with clear copyright status, stringent requirements to comply with privacy and personal data protection laws, and a lack of data portability and interoperability.【Domestic cloud service provider】

- The volume of data does not alone determine the success of a model and the most effective solutions may be a smaller, smarter, more efficient (and often cheap-to-use) model. Furthermore, more models are being developed for specific industries like healthcare and manufacturing. These models use industry-specific data instead of the vast amounts of broad data used by general chatbots.
  【Foreign cloud service provider】

5. Questions and Feedback on AI Talent

Question (9): At present and in the foreseeable future (within the next 5 years), in which fields (hardware, software, or interdisciplinary areas) is a talent shortage of AI developers imminent? What talent is required across sectors such as infrastructure, foundation models, and deployment? How much time is required to train professionals in these areas?

Question (10): Do enterprises currently face difficulties in recruiting AI talent? For example, is competing with well-funded companies in attracting talent a challenge, or do constraints from no-poaching agreements or post-employment non-compete clauses unable firms to compete effectively?

Public Comments:

The public comments indicated that the demand for AI talent in Taiwan is increasing in areas such as chip design, computing architecture, and integrated development of foundation models as well as in interdisciplinary applications. Talent shortages are greatest in software and interdisciplinary integration.

Regarding training periods, AI infrastructure and model development typically require master's-level or doctoral-level expertise, with training periods of approximately 2 to 5 years. At the application and deployment layer, demand is highest for interdisciplinary talent with industry backgrounds and AI skills, with training periods of approximately 6 months to 2 years. At present, the pace of talent cultivation can barely match that of demand.

Public comments regarding talent recruitment were polarized. Some enterprises reported difficulties in competing with large companies in terms of salaries and benefits. Several companies have also strengthened data confidentiality and non-compete clauses when terminating employments, which may adversely affect talent mobility. By contrast, some public comments indicated that talent flowed freely and that several new entrants and startups had entered the industry.

- Due to the fact that Taiwan has historically had a strong foundation in hardware manufacturing, there is a noticeable shortage of talent in

software and interdisciplinary fields. There is also a major shortage of talent in AI deployment (products, data science, prompt engineering, and RAG/Agent).【Domestic cloud service provider】

- Enterprises have not generally had difficulty recruiting AI talent, nor has such talent been monopolized or concentrated within specific firms. AI talent is highly mobile across industries, and this mobility has promoted innovation and enabled new companies to enter the market. The numerous new market entrants within a short period suggest that human resources are not scarce and that employees have sufficient opportunities to transition between companies.
  【Foreign foundation model provider】

- The knowledge-intensive and technologically sensitive nature of the AI sector has led many companies to strengthen confidentiality obligations and non-compete clauses when employees leave. Such policies have reduced the circulation of talent and the potential for collaboration, creating the double challenge of "retaining internal talent" and addressing the "lock-in of external talent."
  【Domestic industry association】

- (1) The most difficult talent to recruit, in order of difficulty, is AI data scientists, AI consultants, and AI project managers. In terms of training and experience, engineers and data scientists generally require 2 to 5 years of practical experience, whereas project managers and consultants typically require more than 5 years of cross-disciplinary experience.
  (2) AI startups are at a disadvantage in competing for talent, whereas large information service providers tend to have an advantage. Although no-poaching agreements or non-compete clauses do not generally constitute a major barrier to market entry, they may influence sectors involved in sensitive technologies.【Government agency】

- (1) AI infrastructure and foundation model development typically require talent with master's-level or doctoral-level expertise, with training periods ranging from 2 to 5 years. By contrast, deployment and application layer depends predominantly on cross-disciplinary talent with both industry knowledge and AI technical skills, with training periods ranging from 6 months to 2 years.

(2) Highly qualified talent tends to pursue opportunities in Europe, the United States, China, and Singapore. In addition, the pace of talent cultivation in the industry has struggled to match market demand, intensifying talent shortages.【Domestic semiconductor company】

6. Questions and Feedback on Development and Application of Foundation Models

Question (11): What are the principal difficulties companies currently face when developing GenAI models? Do companies tend to use open-source or closed-source models, or do they develop proprietary models?

Question (12): What factors must be considered in choosing between open-source and closed-source models, and to what extent are the two types of models substitutable? If an open-source model is to be used, what are the current priority options, and why?

Public Comments:

Currently, only a few companies with strong research and development capabilities, capital, and data resources have developed proprietary models. Companies that develop their own GenAI foundation models face high costs associated with computing resources, data quality and legality, as well as model fine-tuning and maintenance. In addition, some companies reported that currently these costs are not justified by the commercial value they derive from GenAI.

Competition in the development of foundation models is intense, and companies choose which models to use depending on different scenarios or performance requirements. For example, some advanced functions still rely on closed-source models. However, if strong confidentiality requirements or a need for strong industry-specific customization prevail, companies may consider developing open-source models in house. Companies may also use both open-source and closed-source models simultaneously. As the performance of open-source models gradually approaches that of closed-source models, their substitutability is likely to increase. Meanwhile, providers of existing closed-source models may also respond to feedback from users

and deployers by releasing open-weight models.[19]

- (1) The major difficulties enterprises encounter in developing GenAI models are a lack of model-compliant data and high costs of computing power and energy in the early development stage, as well as costs related to compliance, security, and data governance. In addition, AI models require continual fine-tuning after they have been developed, and applications with sufficient commercial value to justify the frequently substantial development costs can often be identified only with difficulty.
  (2) Currently, most enterprises rely predominantly on fine-tuning open-source models with specific data sets to develop their own models. Recently, the performance of several open-weight models has rapidly approached that of closed-source models, rendering them substitutable for most enterprise workloads.
  【Domestic cloud service provider】

- （1）There is no consensus on a single favored provider of FMs. Queried our Members that deploy AI reported using a variety of FMs, often interchangeably or simultaneously depending on their use case or performance differences.
  （2）User and deployer sentiment continues to carry significant market power, forcing incumbents to act reactively. OpenAI responded to the growing popularity of open-source models by recently releasing open-weight models of its own, and user backlash following the release of GPT-5 recently prompted the return of GPT-4_o.
  【Foreign industry association】

- When choosing between open-source and closed-source models, our company primarily considers factors such as cost, licensing restrictions, technical transparency, customization, performance, and cybersecurity and compliance requirements. As the performance of open-source models gradually approaches that of closed-source models, their substitutability has increased and they offer cost advantages. However, certain advanced functions and language capabilities are still better

[19] When the parameters of an AI model (the values learned during training that determine how a model generates responses) are made public, the model is considered open-weight. Although open weighting provides transparency and control, it differs from open sourcing. See "Is OpenAI's Open-Weight Model Related to DeepSeek? Altman Answers Personally", *Liberty Times Net* (Aug. 19, 2025).

delivered by closed-source models. Accordingly, our company currently adopts both open-source and closed-source models and adjusts its approach dynamically on the basis of the practical needs and technological developments.【Domestic semiconductor company】

- GenAI models are highly dynamic, with industry incumbents and new entrants actively investing in and launching new models. However, whether operating system or application store providers impose restrictions to affect the use of such models on new platforms and devices warrants ongoing scrutiny.【Foreign foundation model provider】

- (1) Some industries require high data confidentiality and extensive customization tailored to industry-specific characteristics. In such cases, open-source or "open-weight" models are essential. Currently, only a few companies with strong research and development capital and data resources choose to develop proprietary models, whereas most enterprises tend to rely on open-source platforms and open resources.
  (2) Although open-source models offer considerable flexibility, enterprises must invest substantial time, resources, and data in model training and optimization during the initial adoption stage, all of which incur non-negligible costs. In addition, restrictions on uploading sensitive data to the cloud are a major factor leading enterprises to establish local open-source models.【Domestic industry association】

Question (13): Are small language models[20] and edge AI preferred by companies in Taiwan apart from LLMs? Why? What small language models have been developed and deployed in Taiwan?

Public Comments:

The majority of the public comments indicated that the models adopted currently depend on the user scenario. Therefore, in practice, companies do not rely on a single language model. Although LLMs generally perform optimally on complex tasks, small language models may be superior when low latency is required or when sensitive data are involved. Some industry participants also argued that compared with

[20] For explanations of LLMs and small language models. See also TFTC, *supra* note 1, at 4–5.

LLMs, small language models were superior for use in Taiwan's innovation ecosystem.

In addition, since Taiwan's industries have advantages in AI hardware manufacturing, some comments suggested that Taiwan was well positioned to develop device-side AI and that small language models can be readily optimized for local hardware.

- There can be meaningful substitutability across foundation model types, depending on use case. Small and medium foundation models, for instance, may be just as well suited for a particular use case as more powerful larger foundation models. There is also no clear driving line at which point a small language mode becomes a medium model or a medium becomes a large language model, and what was once considered large may now be considered small.
  【Foreign Cloud Service Provider】

- Taiwan's industrial strengths predominantly lie in vertical application domains such as manufacturing, health care, retail, and smart cities. These scenarios generally require low latency, high real-time responsiveness, and AI solutions that can be deployed on-premises. For example, predictive maintenance of machinery in smart factories, medical image analysis assistance in health care institutions, or customer service dialogue engines in retail environments can all be aptly managed by small language models deployed on edge devices or within private environments.【Domestic Industry Association】

- (1) Small language models are superior to LLMs in Taiwan's innovation ecosystem. Small language models can lower entry barriers for local firms because they require fewer computing resources and can be deployed locally or at the edge; they also provide stronger protection and cost control.
  (2) Taiwan's competitive advantage in the semiconductor sector enables it to lead in efficient edge AI deployment. Small language models can be highly optimized for local hardware to stimulate the development of domain-specific applications and reduce reliance on cloud infrastructure.【Foreign Foundation Model Provider】

- (1) From the perspective of AI applications, when cloud services can be adopted, LLMs generally deliver better performance, and

enterprises in Taiwan tend to prioritize adopting them. Small language models are only considered by enterprises without Internet connectivity or in applications that are highly latency-sensitive or involve sensitive data.

(2) From the perspective of AI development, when enterprises in Taiwan need to rapidly deploy across multiple locations or devices or when sensitive data need to be handled, small language models and edge AI are preferable. Small language models and edge AI inference can reduce cloud costs and egress fees, improve latency, and protect data sovereignty.【Domestic Cloud Service Provider】

- LLMs require substantial computing power and data. Given leading international LLMs are competitive, domestic proprietary LLMs currently lack competitiveness. We suggest establishing a Taiwan-centric traditional Chinese data set and collaborating appropriately with international providers. In addition, leveraging Taiwan's strengths in AI hardware manufacturing to deploy small language models on the edge or on devices could create superior prospects for application development.
  【Domestic Cloud Service Provider】

- (1) Like all of our Members in Taiwan and across the region are active users of digital services from a wide range of providers across the world. This empowers them to make decisions on technology deployment that are right for them, selecting for factors like effectiveness, security, or cost, depending on if they feel the need to compete on equal terms with foreign competitors, or manage expenses appropriately.

  (2) In the case of AI, the majority of our Members and Taiwanese startups more generally are AI deployers, and while local Taiwanese FMs such as TAIDE have become commercially available, their effectiveness in catering to users of Traditional Chinese may not be the foremost priority of developers aiming to grow their business outside of the region.【Foreign Industry Association】

7. Questions and Feedback on Product or Service Tying and Bundling

Question (14): Do AI industry members engage in tying or bundle

purchases of their products or services (e.g. requiring the purchase of product B with product A)?

Public Comments:

Most companies indicated that they had not observed tying or bundling of GenAI products or services. Users are generally free to combine such products or services with products from other companies, and no restrictions are typically placed on service choice, nor is mandatory bundling common. However, some comments noted that the use of certain models requires compatible specific software, which may create an ecosystem lock-in effect.

- If an enterprise seeks to use a particular foundation model, it must first obtain a license for compatible software from the provider (through a bundling arrangement). Although the purchase of a full suite is not formally required, this practice effectively results in ecosystem lock-in. 【Domestic Cloud Service Provider】
- There is no bundle or tie cloud services with generative AI services. Customers are free to use services in isolation, or in conjunction with other our services, or with third party services, as appropriate for their use case.【Foreign Cloud Service Provider】
- We caution that blanket characterizations of self-preferencing and tying practices should be avoided because they are more likely to be pro-competitive examples of vertical integration. Such practices can produce greater efficiency, better quality or lower costs for consumers, and there are minimal antitrust issues when users can easily switch to another platform.【Foreign Industry Association】
- To date, we have not observed any instances of AI products or services being bundled with or locked behind prerequisite purchases. 【Domestic Semiconductor Company】

8. Questions and Feedback on Startups and National Policies

Question (15): Regarding the activeness of GenAI in Taiwan, do startups (including internal startup units within enterprises) focus on AI model development or application deployment? What

difficulties do they encounter in establishing such startups? And will their future development be likely to lead to acquisition?

Public Comments:

GenAI startups in Taiwan are mostly focused on the application layer in areas such as health care, marketing, language services, and smart manufacturing; few are engaged in developing foundation models. Several comments noted that as AI startups require financial support, many are not opposed to being acquired, and acquisition may even be their ultimate goal. Imposing unnecessary regulatory burdens on mergers and acquisitions could therefore weaken incentives for innovation. However, acquisitions are influenced by the dynamics of the capital market and by large technology companies.

- Domestic startups are heavily concentrated in certain vertical applications (e.g., customer service automation, content generation, and smart manufacturing). Such startups have limited ability to independently develop models because traditional Chinese training data are lacking, the cost of computing power is high, and the regulatory environment is uncertain. Whether GenAI startups are easy to acquire depends on domestic and international capital markets as well as on the investment strategies of large technology companies.
  【Domestic semiconductor company】

- Taiwan's vibrant investment environment enables smaller startups and well-established GenAI companies to obtain substantial funding and access to technical and financing expertise. This ease of access to funding and expertise is evident in the growing number of successful companies, which include unicorns such as Appier, and in the expanding startup community of Taiwanese scientists, engineers, and other professionals, such as Anivance AI, iKala, and InfuseAI.
  【Foreign cloud service provider】

- Currently, GenAI startups in Taiwan mainly focus on applications in areas such as health care, marketing, and language services, such startups mostly adopt approaches based on fine-tuning open-source models and retrieval-augmented generation (RAG). These startups face challenges associated with computing resources, high capital

thresholds, reliance on external suppliers of AI technology, and long validation periods for business models.
【Domestic cloud service provider】

- (1) The majority of generative AI startups are AI deployers and presently encounter few if any challenges in accessing most major and emergent AI models.
  (2) Starting a Generative AI-based business in Taiwan is limited primarily by the liquidity available in the Taiwanese market, which is a significant limiting factor.
  (3) Adjustments to competition law addressing mergers and acquisitions should take into account the end-goals of many startups, which is to be acquired. Burdening parties in mergers and acquisitions with unnecessary oversight may undermine incentives for entrepreneurship and innovation, driving vital talent to other markets.
  【Foreign industry association】

Question (16): What role do current national policies play in the GenAI sector, and what are the impacts?

Public Comments:

The Taiwanese government plays the role of both "a promoter and a regulator" in the GenAI sector. From the perspective of a promoter, current government policies mainly to promote GenAI principally focus on enhancing cloud infrastructure and talent development; while future policies may promote on-premises deployment. The public comments generally were supportive of the government assisting industrial development and encouraging innovation through measures such as R&D subsidies and talent cultivation. In addition, countries are increasingly acting to increase control over their AI systems and data through measures such as establishing sovereign AI and strengthening localized data regulation. These trends stimulate the development of related domestic industries.

- The Taiwanese government plays the role of both "a promoter and a regulator" in the GenAI sector. The government seeks to promote the development of startups and industry through policies related to investment, providing computing resources and open data, and talent

cultivation and to ensure privacy and cybersecurity. The goal is to balance innovation and risk, assist enterprises in adopting AI, and enhance market trust.【Domestic cloud service provider】

- Countries are increasingly seeking to control their AI systems and data. In certain vertical sectors with distinctive development characteristics such as finance, health care, and national defense, data protection and localization requirements are being used to encourage the establishment of domestic data centers or cloud services in order to strengthen national development capacity. In addition, in response to the effects of the pandemic and geopolitical tensions, countries have begun promoting the development of "sovereign AI" to reduce dependence on external technologies, safeguard national interests, and promote strategic autonomy.【Domestic industry association】

- As noted in the TFTC's Public Consultation Paper, Taiwan's AI policy demonstrates a balanced and forward-looking approach that encourages innovation while incorporates safeguards. Our company supports the principles of openness, transparency, and sustainable development emphasized in the draft of the Artificial Intelligence Basic Act and recommends adopting flexible regulations to mitigate premature constraints on innovation.
【Foreign foundation model provider】

- Current policies are primarily focused on cloud infrastructure and talent subsidies. However, GenAI applications are increasingly transitioning toward deployment on end-user devices such as AI PCs. Therefore, when promoting GenAI, the Taiwanese government should support key areas such as on-device AI computing power (e.g., specialized chips such as NPUs or TPUs), AI PC research and development, local deployment of open-source models, and strengthened data security and privacy protections.
【Government agency】

IV. Public Comments on Competition Issues From the GenAI Sector

1. Questions and Feedback on Competition Issues Outlined in the Public Consultation Paper

Question (1): Should any adjustments be made to the TFTC's description of the competition issues related to GenAI?

Public Comments:

The majority of the public comments indicated that AI development remained in an early stage and that several new competitors were entering the market. Currently, the market structure does not indicate the presence of clear competition concerns, although continued observation is warranted. Some comments indicated that in the absence of evidence to the contrary, the market for AI-related services should not be presumed to be more prone to competition issues than are other markets that also require capital-intensive investments.

- We have no objection to the TFTC's position on the competition concerns associated with GenAI. However, owing to the industry and regulatory environment are rapidly changing, some factors should be warrant such as international monitoring trends, data resource concentration, and competition in cross-border services.
  【Domestic semiconductor company】

- Generative AI is a highly competitive sector across the global economy and the pace of innovation in AI only continues to accelerate. In just the past few months, multiple companies have released new leading-edge generative AI models and applications including Google, Anthropic, xAI, DeepSeek, Amazon, Alibaba, Meta, Mistral AI, and OpenAI. Further profound changes to the competitive landscape can be expected in the coming months and years.
  【Foreign cloud service provider】

- (1) Access to compute resources for training AI models is not a barrier to entry given the number of options for companies to obtain compute resources.
  (2) The volume of data does not alone determine the success of a

model and the most effective solution may be a smaller, smarter, more efficient (and often cheaper-to-use) model.

(3) We do not consider there to be material technical, commercial, or other barriers limiting a company to switch between cloud providers.

(4) Investments and transactions in this space are an efficient way to bring together resources and skills to enable more rapid and effective invention than companies could achieve on their own.

【Foreign cloud service provider】

- We strongly disagree with accusation from some policymakers that AI services are somehow more prone to competition problems than other markets with capital-intensive inputs, particularly when this assertion relies on an inaccurate picture of the markets for AI services. At present, markets impacted by generative AI are experiencing robust competition at the computing resources, model, and application layers, and any intervention by the Taiwanese government should be predicated on clearly demonstrating the opposite.

【Foreign industry association】

2. Questions and Feedback on Commercial Use of GenAI

Question (2): How is GenAI used in making business decisions (what tools are used and what types of decisions are made)?

Public Comments:

Several companies have begun applying GenAI in their commercial activities. GenAI can efficiently collect, summarize, and analyze data, thereby assisting companies in making business decisions. Its applications are manifold and include customer service (customer routing), marketing (customer segmentation analysis), and compliance (contract review). However, general-purpose AI decision-making models are of limited use, and they typically need to be fine-tuned by using a company's internal data and databases to align with the unique decision-making logic of an enterprise.

- Taiwan's linguistic diversity, highly digitalized economy, and export-oriented industries (e.g., electronics, health care, biotechnology, and logistics) render its enterprises particularly well positioned to adopt AI tools to facilitate multilingual document generation, customer

communication, and interindustry data analysis.
【Foreign foundation model provider】

- Our company has developed an in-house GenAI conversational assistant that offers high data security and productivity support. This assistant connects to multiple LLMs and helps developers create diverse plugins to expand application scenarios and functionalities; it is highly integrated and expandable. Although it is not directly used for commercial decision-making, it has been extensively adopted across various functional departments to assist with daily work, improve efficiency and productivity, and indirectly support corporate decision-making processes.【Domestic semiconductor company】

- Externally sourced AI tools approved within our enterprise (e.g., Microsoft 365 Copilot and NotebookLM Enterprise) are used collaboratively to support corporate management decision-making, information referencing, and data collection. Applications of GenAI that contribute to decision-making include customer service/operations (e.g., intelligent customer service routing and network degradation prediction), marketing (e.g., customer segmentation analysis, copywriting, and producing advertising materials), and risk control/compliance (e.g., contract review and cybersecurity compliance checks).【Domestic cloud service provider】

- (1) Commercial decision-making involves company-specific algorithms, risk thresholds, and compliance procedures. Standard tools rarely directly meet these requirements. A common approach to overcoming this involves using a general-purpose LLM as the engine and embedding a company's unique data, rules, and decision-making processes through methods such as prompt engineering, RAG[21] and fine-tuning (instruction tuning).
  (2) What would be useful is a system attuned to a company's individual decision-making logic and governance requirements rather

[21] Retrieval-Augmented generation (RAG) integrates external knowledge bases to enable LLMs to retrieve information in real time, increasing the accuracy, reliability, and timeliness of responses. See Institute for Information Industry, Digital Transformation Institute, "How Can Security and Innovation Be Achieved Simultaneously? RAG Technology Faces Dual Challenges in Unlocking AI Potential and Addressing Security Risks," (Jul. 30, 2025).

than a general-purpose decision-making AI model.
【Domestic industry association】

3. Questions and Feedback on GenAI Partnerships

Question (3): What are your views on business partnership, investment, or even organizational integration in the GenAI sector (e.g., Microsoft integrating OpenAI's GPT models into its Copilot AI assistant)? What factors hinder or exclude competition in this sector?

Public Comments:

The public comments cited several cases of business partnerships and acquisitions between large technology companies and startups in the GenAI sector. For example, although the vertical integration between Microsoft and OpenAI offers some advantages, it does not necessarily preclude market competition because other firms can also pursue innovation through deployment layer. In addition, when startups obtain funding, computing resources, and other assets through partnerships, they can often achieve innovations that would be difficult to accomplish independently. The influence of such partnerships on competition can be examined by reviewing agreements between enterprises and evaluating them in accordance with the principles of competition law.

- Situations in which business partnerships in the GenAI sector may hinder or exclude market competition include (1) firms prioritizing displaying or recommending models developed in house on proprietary platforms, or exclusively or preferentially display models of strategic partners. Such practices can consolidate a firm's market advantage and crowd out opportunities for other model developers to gain exposure and users, thereby potentially restricting market competition; (2) AI models or applications that have been developed by partner firms only being available for use on a firm's own cloud services; (3) tying or bundling a firm's products or services with a partner firm's existing dominant products (e.g., office suites, search services, operating systems, or default browser settings).
【Domestic cloud service provider】

- (1) Partnerships between startups and established companies are uniquely beneficial to competition. They enable startups to grow by providing access to funding and cloud computing resources, and combine the complementary assets of different firms to drive innovation that a single firm cannot accomplish independently. Given the number of companies looking to invest in foundation model developers, there is strong competition for investment opportunities, and foundation model developers with promising models are able to select the investors they want to partner with.
  (2) Partnerships and investments have played an important role in accelerating innovation and entry in the era of generative AI. If investment by technology companies were to be cut off or unduly restricted, those companies would likely redirect funding to internal R&D efforts.【Foreign cloud service provider】

- (1) As GenAI is an emerging technology, its business models and applications are still in a phase of widespread experimentation. Establishing a generally agreed upon definition of the "GenAI market" under competition law has proven elusive.
  (2) The competitive effects of partnerships depend on the specific terms of agreement, and potential competition concerns could be assessed on the basis of the principles of competition law.
  【Foreign foundation model provider】

- Partnerships and acquisitions between startups and larger firms play a pro-competitive role by injecting new talent, technology, and ideas into the market. Far from entrenching dominance, these arrangements often accelerate innovation and help smaller scale.
  【Foreign industry association】

- The vertical integration between Microsoft and OpenAI offers advantages but does not indicate that market competition has been impeded. In the AI PC sector, some firms have launched AI assistants with built-in small language models, whereas others have deployed on-device AI through their proprietary operating systems and chips; these advances indicate that brand manufacturers and system vendors have not been prevented from innovating.【Government agency】

4. Questions and Feedback on Development of GenAI Ecosystems

Question (4): Are ever-evolving GenAI ecosystems the future trend? Please explain how the development of such ecosystems may alter the existing competitive landscape.

Public Comments:

The development of GenAI is likely to transition toward integrated ecosystems, with the focus of competition shifting from individual products to integrated services. Within AI ecosystems, former competitors may become partners, and competition among firms may evolve into competition among ecosystems. These trends may lead users, developers, or enterprises with limited resources to become more dependent on particular ecosystems thereby increasing switching costs. The TFTC is encouraged to monitor the potential impact on competition of such ecosystem designs.

- As models are increasingly being integrated into development platforms, operating systems, productivity tools and app stores, the structure of ecosystems is likely to increasingly influence competitive dynamics. This trend itself is not inherently anti-competitive, but rather a natural competitive parameter that emerges as technology matures. 【Foreign foundation model provider】

- In the future, GenAI ecosystems will continue to strengthen and may integrate AI platforms, cloud services, hardware, applications, and data. This trend may lead users, developers, and resource-constrained enterprises to become more dependent on particular ecosystems, potentially increasing switching costs. The focus of competition may also shift from individual products to integrated services, and these developments warrant continued observation.
  【Domestic semiconductor company】

- (1) Competition is transitioning from single-point technology to integrated ecosystems. AI is no longer limited to a single technology or tool but encompasses a multi-layered architecture of computing power, models, applications, and governance. Enterprises that cannot integrate internal resources and participate in external ecosystems will struggle to maintain competitiveness. Within AI ecosystems, former

competitors may become partners, and inter-industry collaboration or partnership is likely to become the new norm.
(2) The development of AI ecosystems not only involves technological evolution but also a fundamental shift in the logic of industrial competition. Competitive enterprises will be "those that can integrate more resources and deploy applications more rapidly than others" rather than those that act alone.【Domestic cloud service provider】

- (1) In the future, the key competitive factor that distinguishes GenAI enterprises is likely to shift from the capabilities of individual models and computing power to the ability to integrate ecosystems.
  (2) From chips, operating systems, and cloud resources to on-device AI PCs and application services, enterprises will focus on increasing end-to-end vertical integration and interindustry collaboration. This ecosystem development will likely alter the previous competition logic of "single-point innovation," and create a competitive landscape centered on platforms and strategically focused on user touchpoints such as AI PCs.【Government agency】

5. Questions and Feedback on Unilateral Conduct in the GenAI Industry

Question (5): Which enterprises possess substantial market power in the AI sector and warrant close scrutiny? Alternatively, which enterprises with substantial power in other markets may be able to extend that power into the AI sector and thus require close scrutiny? Please explain why you believe these enterprises warrant close scrutiny.

Public Comments:

Some public comments suggested that enterprises with substantial market positions in GPUs, cloud services, or large digital platforms (e.g., Nvidia, Microsoft, Meta, Google, Apple, Amazon, and TikTok) may extend their market power to AI application services through hardware supply or their service ecosystems. However, other comments maintained that since the development of AI technology is highly dynamic, the market positions of existing enterprises are not firmly entrenched, and they may experience difficulty in maintaining a

long-term market position. Overall, no major concerns regarding enterprises extending their market power to the GenAI sector were raised.

- Based on publicly available information, major international technology companies such as Microsoft, Google, Amazon, and Meta, as well as AI-focused companies such as OpenAI and Anthropic, already possess significant advantages in areas such as cloud computing, foundation models, application services, and data resources. Through their existing user bases and ecosystem integration, these companies may extend their market power into the AI sector. The technological positioning, partnership strategies, and market conduct of such enterprises may affect competition in the industry and therefore warrant continued scrutiny.【Domestic semiconductor company】

- AI has the potential to disrupt technology and industry incumbents. Overall, major concerns that companies with substantial market power may adversely affect competition have yet to be raised. We agree that the TFTC should continue to monitor the competitive conditions of the AI infrastructure and application layers and promote competition. 【Foreign foundation model provider】

- No one tool will meet every customer need and/or use case and, therefore, there remain significant opportunities for new AI application providers to enter this space and offer further new and innovative tools. We expect the AI applications space to become increasingly competitive in the coming years and provide a huge selection of AI applications.【Foreign cloud service provider】

- At the end-user access and distribution layer (OS, search engines, social media video and advertising, and productivity suites), major platforms (e.g., Apple, Google, Meta, Microsoft, Amazon, and ByteDance [TikTok/Douyin]) control default entry points, device-level permissions, and ranking rules, enabling them to extend their market power across AI assistants, AI search, and application distribution, which reinforces ecosystem lock-in.【Domestic industry association】

6. Questions and Feedback on Concerted Action Facilitated by GenAI

Question (6): Does GenAI make it easier for firms to engage in concerted action (e.g., to reach price agreements)? What enforcement tools or deterrence measures might be effective in these areas?

Public Comments:

Similar to other technologies, GenAI offers positive benefits but may also be misused for unlawful purposes. At present, the actual impact of GenAI on concerted action remains unclear. Some public comments noted that with ongoing advances in algorithms and the increasing transparency of pricing information may shift competition from being oriented toward price to being oriented toward quality, innovation, and value-added services. The TFTC should therefore maintain an open mind and explore the benefits of AI algorithms as an assisting tool to pricing decisions.

- It remains unclear how AI will affect concerted action by firms. Similar to other technologies, AI can be used for beneficial purposes but may also be misused for harmful ends.
  【Foreign foundation model provider】

- With the development of AI and rapid innovation in algorithms, market price information has become increasingly transparent, and price comparison websites are widespread. The traditional competitive environment based on price uncertainty is therefore likely to undergo fundamental changes, transitioning from being based on price competition toward being based on quality, innovation, and value-added services. This positive effect is the promotion of competition generated from the AI development. Therefore, an excessive focus on regulating price competition (such as readily presuming algorithmic collusion) may hinder the adoption of AI and the momentum of algorithmic innovation and could open regulators to criticism and pose challenges for regulatory authorities.
  【Domestic industry association】

7. Questions and Feeback on Improper Marketing Facilitated by GenAI

Question (7): How might GenAI increase the incidence of improper marketing? What enforcement tools or deterrence measures might be effective against such marketing?

Public Comments:

The development of GenAI technology has resulted in improper marketing that has 3 features: “low-cost, highly customized, and difficult to detect.” For example, advertisements may be produced using deepfake technology, or inaccurate content may be generated by AI hallucinations. Some public comments suggested that some businesses are strengthening protective measures through self-regulation and increasing transparency in their use of AI technologies.

- GenAI may produce inaccurate, erroneous, or biased content through “AI hallucinations.” GenAI may also be used to create misleading advertisements through deepfake audio and video, fake reviews, or fabricated testimonials.【Domestic cloud service provider】
- (1) Our company currently provides transparency regarding AI-generated content in advertisements, allowing users understand how AI tools are involved in the creation of advertising content.
  (2) From a safety and cybersecurity perspective, open-source models may also offer potential benefits. Enabling a broader community to participate in review and creation can help identify and address vulnerabilities.【Foreign foundation model provider】
- (1) GenAI has facilitated improper marketing that is “low-cost, highly customized, and difficult to detect.”
  (2) Visibility and traceability should be enhanced, including by establishing mandatory labeling and high-risk warnings for AI-generated or highly realistic synthetic content.
  【Domestic industry association】

V. Public Comments on the Future Direction of TFTC Policy

1. Questions and Feedback on Competition Issues Requiring Greater Attention from the TFTC

Question (1): What challenges to competition require greater attention from the TFTC?

Public Comments:

The FTA is sufficient to address potential competition concerns arising from the use of GenAI. Most public comments noted that regulatory approaches to GenAI vary in strictness across countries. If compliance costs for GenAI regulations are too high, they may create barriers to market entry and place domestic enterprises at a competitive disadvantage relative to foreign firms.

- If the compliance costs associated with GenAI become excessively high (e.g., through requiring substantial resources to handle copyright licensing and personal data reviews), such costs may create barriers to market entry and limit opportunities for firms to participate. As the relevant regulations impose criminal liability, whereas most countries impose only civil liability, Taiwanese firms face higher legal risks and operating costs in international competition. Foreign firms may therefore be able to enter the Taiwan market at lower cost, which could create an uneven competitive environment. These conditions may adversely affect the development of local industries and may indicate a need for a review of the current competition policy under the FTA.【Domestic semiconductor company】
- The examples of potential anticompetitive behavior competition regulators have raised (such as tying, bundling, exclusive dealing, and anticompetitive M&A transactions) fall squarely within traditional competition law and do not raise new or unique concerns or legal issues. There is no evidence that existing competition laws are not adaptable to new technologies and industries, and that remains true in the AI context.【Foreign cloud service provider】
- Currently, no evidence indicates pervasive anti-competitive conduct in the GenAI industry in Taiwan or other jurisdictions. Nevertheless, our

company encourages the TFTC to remain vigilant regarding competition challenges.【Foreign foundation model provider】

2. Questions and Feedback on Recommendations on Use of Enforcement Tools

Question (2): Do you have any recommendations on the use of enforcement tools?

Public Comments:

In rapidly evolving fields such as AI, regulation and enforcement must maintain a balance between innovation and competition. The TFTC is recommended to carefully monitor market developments and should not prematurely intervene or impose regulations; it should encourage the development of related industries and minimize entry barriers for startups and small firms.

- To foster an environment favorable to industrial innovation, it is recommended the TFTC to encourage the development of GenAI applications. At this stage, imposing excessive restrictions on the development of AI technologies or stringent regulations for applications where no clearly identifiable risks have yet been identified would be inappropriate.【Domestic startup】
- We believe that it is important for regulators, including competition authorities, to keep abreast of developments in this space. Conducting market studies and engaging with technology providers, as the TFTC is doing, is a helpful way to ensure that any regulation or enforcement activity is appropriately targeted and grounded in market reality. At the same time, the incredibly rapid pace of development, innovation, entry, and expansion, suggests that competition and consumers will benefit if the market is provided with sufficient freedom to continue to develop naturally and intervention is limited in this nascent sector.
  【Foreign cloud service provider】
- It is recommended that the TFTC should adopt a prudent, innovation-friendly regulatory approach and should not engage in overregulation. As Taiwan develops its AI capabilities, the TFTC is suggested to adopt an observational approach, closely monitoring AI

developments and their effects on the market to ensure that policy decisions remain evidence-based and balance innovation with fair competition.【Foreign foundation model provider】

- (1) Existing competition regulations in Taiwan are sufficient to support robust competition among both developers and deployers of AI. For start-ups and small digital businesses who face constraints on financial resources and manpower, concerns can be succinctly summarized under three categories: cost, complexity and choice. Measures which increase regulatory complexity, and limit access to a range of effective and cheap digital solutions, will raise costs and barriers to entry for small businesses.
  (2) Given the nascent stage of development of AI technology, the TFTC to exercise restraint in designing and introducing laws governing competition within the Generative AI space as it evolves in potentially unexpected ways and configure its approaches to support AI adoption to encourage adaptability among Taiwanese small businesses and start-ups.【Foreign industry association】

- We strongly encourage Taiwan to support pro-competitive dynamics in generative AI markets, which include lower overhead costs, greater consumer access, simplified market entry, and strengthened intellectual property protections for developers. The European Union's AI Act, like its Digital Markets Act (DMA), is unquestionably a protectionist anti-trade measure that Taiwanese policymakers should carefully avoid aligning with.【Foreign industry association】

VI. Public Comment Highlights and Policy Statement

1. Summary of Public Comments

This consultation marked the TFTC's first effort to solicit industry views on competition law regarding GenAI. The results will help the TFTC form a preliminary understanding of the competitive landscape in this emerging area. A summary of the public comments on competition issues are presented in the following table:

	Competition issues	Summary of Public Comments
1	Restricted access to key inputs such as chips and data	◆ At present, computing resources are still dominated by GPUs produced by Nvidia, with prices reaching hundreds of thousands of U.S. dollars, rendering them difficult for ordinary enterprises to afford. In addition, building and maintaining servers requires technical expertise and operational support personnel, which also constitutes additional costs. Although major technology companies such as Google are developing their own AI chips, whether these can replace GPUs remains to be seen. ◆ In addition to purchasing AI chips and building computing infrastructure, enterprises may also rely on cloud services to obtain computing resources. Firms typically select CSPs on the basis of their specific application needs, and most do not rely exclusively on a single CSP. ◆ Sources of data comprise enterprises themselves, information released by governments, and synthetic data sets. Data that do not originate from government sources are generally more difficult to obtain and may be subject to legal risks. ◆ Common terms governing the use of data involve restrictions on use or the field of application, permissions for retraining or

		fine-tuning, commercial rights to outputs, auditability and downstream liability, and requirements for handling sensitive data (e.g., requirements for de-identification and storage location).
2	Self-preferencing by CSPs or difficulties in switching between providers	◆ Cloud service pricing is predominantly "usage-based," with billing based on CPU/GPU usage, network traffic, or token consumption. Other models involve the use of subscription plans, prepaid arrangements, and long-term contracts in exchange for discounts. ◆ Enterprises commonly partner with major international CSPs, given their advantages with respect to technology, scale, and service diversity. However, domestic cloud providers such as Chunghwa Telecom's HiCloud and Taiwan AI Cloud also are competitive. For example, when government sovereignty or data security are relevant factors, enterprises may prioritize cloud services provided by domestic providers. ◆ Differences in API interfaces, permission architectures, and ecosystems across cloud platforms, in addition to data egress fees associated with data transfer, create barriers to switching CSPs. ◆ Adopting a "multi-homing" strategy not only enables enterprises to leverage the advantages of different CSPs, but also helps diversify data and operational risks, and enhances bargaining power. However, small and medium-sized enterprises may adopt a single-homing strategy due to limited resources and personnel, which may increase the difficulty of switching CSPs. ◆ At present, major CSPs do not appear to have explicitly sought to prevent foundation model

		providers from accessing computing resources. However, in terms of resource allocation, computing power may be prioritized for in-house foundation models or those developed with partners.
3	Bundling/tying and ecosystem integration	◆ Firms with substantial market positions with respect to GPUs, cloud services, or large digital platforms such as Nvidia, Microsoft, Meta, Google, Apple, Amazon, and TikTok may be able to extend their market power to AI application services through hardware supply or service ecosystems. However, some comments suggested that AI development is highly dynamic; the market positions of incumbent firms are unstable and may not endure over the long term. ◆ Most enterprises noted that they have not observed tying or bundling of GenAI products or services. Users are generally free to combine products from different providers without restrictions or forced bundling. Nevertheless, some comments indicated that the use of certain models requires compatibility with specific software, which may generate ecosystem-level lock-in effects. ◆ The development of GenAI is expected to transition toward more integrated ecosystems, with the focus of competition shifting from individual products to integrated services. This trend may increase user, developer, and resource-constrained firm reliance on specific ecosystems, thereby enhance switching costs. In AI ecosystems, former competitors may become partners, and competition between firms may evolve into competition between ecosystems.
4	Talent mobility	◆ Regarding training periods, AI infrastructure and

		model development generally require expertise at the master's or doctoral level, with training periods of approximately 2 to 5 years. By contrast, the application and deployment layer of the AI ecosystem depends on interdisciplinary talent with industry background and AI skills, with training periods ranging from 6 months to 2 years. Currently, the pace of talent development struggles to match demand. ◆ Some enterprises reported recruitment challenges and difficulties in competing with large corporations in terms of salary and benefits. Many firms have also strengthened data confidentiality and non-compete clauses when employees leave, which may adversely affect talent mobility. ◆ International companies observed that talent mobility remains active, bringing a steady influx of new entrants and startups into the industry.
5	Mergers	◆ Numerous partnerships and acquisitions between major GenAI technology companies and startups were cited. ◆ AI startups require financial support, often do not resist being acquired, and sometimes develop with the goal of being acquired. Imposing unnecessary regulatory burdens on mergers and acquisitions may weaken incentives for innovation. ◆ When startups obtain funding, computing resources, and other assets through partnerships, such collaboration promotes innovations that would be difficult for a single firm to achieve independently. The effects of such partnerships on competition can be further assessed by examining the terms of agreements between firms under the principles of current competition law.

		◆ GenAI firm mergers and acquisitions are affected by capital markets and the strategic dynamics of major technology companies.
6	Concerted action/cartels	◆ It remains unclear how AI will affect concerted actions among firms. Similar to other technologies, AI can be used for beneficial purposes but may also be misused for harmful ends. ◆ With ongoing algorithmic innovation and increasing price transparency, competition may transition from a price-driven model toward one based on quality, innovation, and value-added services. Attention should be given to the positive benefits of using AI algorithms as a tool to assist pricing decisions.
7	Improper marketing	◆ GenAI has rendered improper marketing "low-cost, highly customizable, and difficult to detect." ◆ Some platform operators are strengthening safeguards through self-regulation and enhancing transparency in their use of AI technologies.

2. Policy Statement

GenAI and the "White Paper on Competition Policy in the Digital Economy" —

As the legal maxims hold, "*ex facto jus oritur*"— (law arises from the facts), and "No law, written or unwritten, can be understood without a full knowledge of the facts out of which it arises, and to which it is to be applied."[22] The Public Consultation Paper of the TFTC on competition laws related to GenAI explores business models and competition in the current GenAI sector and provides a fact-based foundation for the regulation of the AI industry in Taiwan. The public comments reported therein clearly demonstrate that the AI industry and market competition are evolving at an extremely rapid pace. In the near future, technological advancements may substantially reshape the market landscape and competitive environment. AI is also evolving into a general-purpose technology that integrates seamlessly with various products and services, indicating it holds strong potential to promote broad societal and economic transformation.

In 2022, in response to the rise of the digital economy, the TFTC released the "White Paper on Competition Policy in the Digital Economy"[23] (hereinafter the "White Paper"), which explores competition concerns related to digital platforms, algorithms, and AI. The White Paper articulates the position and provides directions for regulatory enforcement. Consultation feedback indicated that the GenAI market exhibits the characteristics described in the White Paper, with "platforms serving as intermediaries for transactions" and "data" being key to competition. However, dynamic competition and the high uncertainty induced by rapid technological change have rendered the AI market increasingly characterized by a pattern of "cooperation and competition." Intertwined strategic alliances between major foundation model providers focusing on "chips," "data," "computing power," and other factors, as well as alliances between foundation model providers and small and medium-sized enterprises and startups within the supply chain, have become increasingly

[22] Louis D. Brandeis, *The Living Law*, 10 ILL. L. REV. 461, 467 (1916).
[23] TFTC, Summary of English version available at https://www.ftc.gov.tw/upload/c1697761-9974-412f-b6cb-28befbc9e8d3.pdf (last visited May 26, 2026).

frequent. Such alliances explore the diverse applications of GenAI technologies and promote industrial innovation and market development.

As repeatedly highlighted in the public comments, the trend toward competition in the AI industry is "ecosystem-based,"[24] which will be a major factor in subsequent competition assessments by the TFTC. This transition is consistent with the White Paper's observation that digital markets are evolving toward "competition for the market." This transition also poses considerable challenges for the TFTC in integrating procompetitive and anticompetitive effects across multisided markets involving GenAI ecosystems into its delineation of relevant market, assessments of market power, and evaluation of justifications for disputed conduct. On the basis of its established precedents and the suggestions of the White Paper, the TFTC will continue to enhance its digital enforcement capabilities and collaborate closely with academia and industry to ensure that policy and enforcement initiatives are conducive to the development of the GenAI industry and the market and that consumers share the benefits of GenAI.

The public comments generally indicated that, given GenAI remains in an early stage of development characterized by dynamic competition, premature regulation or intervention may increase compliance costs by introducing uncertainty or excessively stringent regulations, potentially stifling innovation. This argument is consistent with the White Paper's cautious stance on whether "ex ante" regulatory measures should be adopted in digital markets. The White Paper proposes the principles of an "issue-driven and evidence-based approach," "emphasis on local nexuses," "maintaining market contestability," and "case-by-case assessment under a rule-of-reason framework." The results of the public consultation indicated that these principles should continue to serve as key references for the TFTC in developing its enforcement approaches for a GenAI competition policy.

[24] The TFTC also noted in the *White Paper* that in the digital economy, competition between firms is no longer confined to competition between individual products but has evolved into competition between entire ecosystems (e.g., the competition between Apple's iOS system and Google's Android system). *Id.* at 194. For a discussion of the development of Taiwan's industry across the AI infrastructure, model development, and application deployment layers, see *supra* note 1 at 13–16.

Enforcement Position and Direction—

(1) Identifying Issues, Clarifying Theories of Competitive Harm, and Refining Evidence Assessments

Although GenAI development is highly dynamic, some international competition authorities, international competition organizations, and members of academia have published general policy reports and analytical studies[25] on the impacts of anticompetitive conduct in the AI sector. These materials provide the basis for a forward-looking regulatory framework that the TFTC can reference. However, these reports and analyses have predominantly drawn inferences from competition law theories, enforcement precedents (e.g., the Microsoft case at the beginning of the century, which did not involve GenAI), observed market conduct (such as frequent vertical integration within ecosystems, exclusive dealing arrangements, or the formation of partnerships), and empirical indicators (such as research and development investment or postmerger changes in market concentration) to signal competitive risk and to substantiate their analytical claims. To date, no competition authority has imposed a final decision addressing specific competition concerns associated with GenAI.

Accordingly, as the industry rapidly develops and diversifies and competition-restraining theories remain at a stage of broadly exploring potential violations and viable analytical routes, the TFTC will adhere to an "issue-driven" enforcement principle. The TFTC will initially assess the nature of each dispute, thereby directing its enforcement resources to issues that are genuinely relevant to market competition and addressable under the FTA.

Even though it was noted in the public consultation feedback, provided no company abuses its financial advantage to prevent

[25] See, e.g., Competition and Markets Authority, "A Foundation Models: Initial Report" (Sep. 2023); Autoridade da Concorrência, "Competition and Generative Artificial Intelligence" (Nov. 2023); Organisation for Economic Co-Operation and Development, "Artificial Intelligence, Data And Competition" (May 2024); Autorité de la Concurrence, "On the Competitive Functioning of the Generative Artificial Intelligence Sector" (Jun. 2024); European Commission (EC), "Policy Brief on Competition in Generative AI and Virtual Worlds" (Sep. 2024); Korea Fair Trade Commission, "Generative AI and Competition" (Dec. 2024); Competition Bureau Canada, "Consultation on Artificial Intelligence and Competition: What We Heard" (Jan. 2025); Japan Fair Trade Commission, "Report Regarding Generative AI" (Jun. 2025); Competition Commission of India, "Market Study on Artificial Intelligence and Competition" (Sep. 2025).

competition, issues regarding the competitive disadvantages of domestic GenAI firms at the R&D and application layers — stemming from undercapitalization and lower business turnover compared to global tech giants — alongside public expectations for the government to serve as both a "promoter and regulator," properly fall within the domain of industrial policy and are best addressed through government incentives, subsidies and managerial frameworks rather than competition law enforcement. In addition, regarding "improper marketing," although GenAI may render it a "low cost, highly customizable, and difficult to detect" problem, enterprises have indicated that this concern can be addressed by increasing visibility and traceability through voluntarily enhancing the transparency of AI-generated content or through mandatory labeling and risk alerts. Nevertheless, when the implementation of regulations on industrial policy raises competition concerns, the TFTC will proactively engage in competition advocacy[26] with the relevant authorities or market participants pursuant to Article 46 of the FTA: "The Act has precedence over other laws with regards to the governance of any enterprise's conduct in respect of competition. However, this stipulation shall not be applied to where other laws provide relevant provisions that do not conflict with the legislative purposes of this Act."

Once a case has been identified as falling within the scope of the FTA, the TFTC will, in consideration of the diverse and evolving theories of the competition constraints on GenAI, clarify the "theories of competitive harm" relevant to the alleged anticompetitive conduct when

[26] In June 2025, Taiwan's Ministry of Digital Affairs published for public comments on a draft of the Act on Promoting Data Innovation and Utilization. The comments submitted by the TFTC to the Ministry regarding Article 20 of the draft, the provision on industrial data-sharing, is an example of such advocacy. Specifically, the TFTC noted that as technologies such as AI develop, the completeness of the data held by individual firms may affect competition in product or service markets. Therefore, when data sharing across industries is encouraged, whether such legislative policies may adversely affect market competition must be duly considered. With respect to the feasible data-sharing mechanisms listed under Article 20(2) of the draft, such as "disclosing data set contents, licensing terms, data sources, and other information," and "adopting uniform data structures, formats, standards, and other methods," such mechanisms may weaken firms' incentives to engage in digital innovation and competition. Moreover, because Article 20 of the draft does not limit the scope of industrial data to be shared across industries, if firms within the same industry share competitively sensitive information on prices, quantities, or customers of products or services or use such information to monitor or predict competitors' pricing or output strategies, they may violate the rules prohibiting unfair competition or cartels.

applying the FTA.[27]

For example, consultation feedback on "computing power," a key input in the development of GenAI, suggested that the abuse of computing power for anticompetitive purposes may involve, *inter alia*, the following theories of competitive harm:

- Locking in users to specific cloud services through differential pricing or trading terms, precluding competitors' ability to compete;
- Restricting partners from adopting competing cloud infrastructure or models through bundling or exclusive arrangements;
- Steering users toward incumbent models and computing services through self-preferencing or refusal to access arrangements that pose challenges to competitors in obtaining critical cloud services, increase scaling costs, cause market tipping, and expand or entrench a provider's market power.

Regarding "chips," which are crucial for computing power, the public comments generally indicated that GPUs manufactured by Nvidia remain essential, and Nvidia's market power may limit firms' access to computing resources. At the same time, however, major technology companies are proactively investing in AI chip development to minimize their dependence on Nvidia. Examples of alternative chips include Google's proprietary TPU chips in its Gemini 3 model and OpenAI's adoption of the Trainium chips developed by Amazon.[28] Regarding the issue of "self-preferencing by CSPs," currently major CSPs have not

[27] In recent years, theories of competitive harm have gradually become a major analytical focus in antitrust law. They do not refer to anti-competitive conduct per se nor to the effects of competition; instead, they are structured narratives or explanations that link specific conduct, mechanisms for implementation, and effects on the market. Through such a framework, legal and economic analysts can clearly articulate how a particular course of conduct may harm competition and can provide a persuasive theoretical basis to support determinations in antitrust cases. See Digital Freedom Fund*, Factsheet: Theories of Harm in Competition Law Cases (2020),* available at https://digitalfreedomfund.org/wp-content/uploads/2020/05/4_-DFF-Factsheet-Theories-of-harm-in-competition-law-cases.pdf (last visited Jan. 28, 2026); Xiaoye Yan, *Theories of Harm on Abuse of Dominance: A Sino-EU Comparative Analysis of the Impact of Institutional Dynamics on the Law Enforcement* (2019) (Ph.D.dissertation, University of Groningen). Available at https://research.rug.nl/en/publications/theories-of-harm-on-abuse-of-dominance-a-sino-eu-comparative-anal/ (last visited Mar. 4, 2026).

[28] Trainium is a semiconductor chip developed by Amazon. See "Reports Indicate That OpenAI Is in Talks for a Ten-Billion USD Investment and Considering Adopting Amazon's AI Chips", *Liberty Times Net* (Dec. 7, 2025).

been found to exclude firms from accessing computing power or to restrict users' ability to switch cloud services. Nevertheless, as the AI ecosystem evolves, increasing dependence on large cloud providers may gradually reduce firms' "multi-homing" options or increase costs for users switching between cloud systems, concerns that warrant careful assessment.

"Talent," another critical facet of GenAI development, may lead to competition concerns in the following scenarios:

- Using "no-poach" clauses to collusively restrict labor market mobility, resulting in competitive rigidity;
- Using "non-compete clauses" to restrict competitors' ability to recruit creative talent, hindering market innovation and competition;
- Using acquihires to limit competitors' access to talent and ability to compete.

The public consultation feedback indicated that although businesses generally acknowledged the critical role of "talent" in AI development and the considerable advantages of large firms in talent recruitment relative to small and medium-sized enterprises, the time required to train these employees and the demand for talent vary considerably across domains. For example, talent in application deployment can be trained more rapidly than can that in AI infrastructure or model development. This difference suggests that the effects on competition of restricting talent mobility vary across cases.

In summary, the public comments on many of the topics reported in the Public Consultation Paper diverged. Clarifying theories of competitive harm relevant to GenAI can help the TFTC refine its analytical framework for case screening and enable it to allocate enforcement resources more precisely and efficiently. Clarifying theories of competitive harm can also inform investigations of individual cases and enhance the relevance of evidentiary assessments. Given that market structures evolve dynamically with technological developments, the TFTC will adhere to an "evidence-based" enforcement approach, broaden the scope of evidence collection, and avoid adopting a "one-size-fits-all" analytical approach. Through extensive evidence

assessments, the TFTC will uphold the core objectives of competition law of preserving competition and promoting innovation without imposing unnecessary compliance costs that could hinder innovation.

(2) Differences in industrial development and their interaction with the "local nexus" principle of enforcement

Currently, regimes of competition law vary in the rigidity of their regulatory frameworks for GenAI. The TFTC noted that although the experiences of foreign competition authorities should be carefully considered, Taiwan differs from other countries in terms of the structure and competitive landscape of its AI industry. Accordingly, enforcement should be tailored to local conditions and should not transplant foreign models to Taiwan in their entirety; instead, locally adaptive enforcement strategies must be developed that are sensitive to Taiwan's distinct market characteristics.

For example, the public comments generally indicated that within the GenAI ecosystem, Taiwan holds a crucial position in the semiconductor sector. Taiwan's semiconductor industry encompasses a complete value chain from chip design in the upstream to chip manufacturing to packaging and testing in the downstream that is closely linked to other infrastructure required for AI model development and deployment. However, Taiwan's semiconductor value chain was forged organically over decades of capital investment and industrial specialization under dynamic competition. Moreover, the semiconductor industry is characterized by high sunk costs and requires sustained capital investment to maintain competitiveness. Simultaneously, the semiconductor industry faces heightened competitive risks stemming from cross-generational technological shifts, volatile market dynamics, and continuous innovation. Given that semiconductors serves as a core component of AI infrastructure, the TFTC will closely monitor this rapidly evolving market while maintaining international cooperation for competition law enforcement.

The public comments also indicated that Taiwan is less competitive than are other countries in its cloud services and in research and development into LLMs. Nevertheless, most Taiwanese firms have

adopted a "multi-homing" strategy rather than relying on a single CSP. Consequently, the demands for localized data storage, operational risk diversification and business flexibility allow domestic CSPs to actively compete with international providers. In addition, Taiwan's strengths in the advantage in hardware manufacturing may facilitate the development and adoption of on-premises AI solutions by domestic firms. Furthermore, small language models require fewer computational resources than LLMs do and their smaller size provides an advantage to Taiwanese firms. In fact, the majority of Taiwanese startups are concentrated in various application deployment sectors.

These local industrial characteristics suggest that the demand for "data" by AI firms varies across applications. Accordingly, any attempt to determine whether limitations on access to various types of data constitute insurmountable barriers to market entry must account for Taiwan's current market conditions.

With respect to "restrictions on talent mobility," some public comments expressed concern that "non-compete clauses" may adversely affect labor mobility. Indeed, there is no shortage of foreign competition authorities that have adopted a prohibitive stance.[29] However, because of Taiwan's focus on semiconductors and other high-tech industries as well as its ongoing challenges in stemming the outflow of talent and key technologies, a case-by-case assessment is essential to evaluate how "non-compete clauses" and restrictions on labor mobility affect business development and incentives for talent cultivation, while fully accounting for the variations among domestic legal frameworks.[30] Prohibitive enforcement approaches adopted in other countries may not be readily applicable to Taiwan. Moreover, although some foreign competition

[29] The Federal Trade Commission (FTC) of the United States issued a ruling on April 23, 2024, prohibiting employers from entering into non-compete agreements with workers. However, in August of that year, a district court in Texas held that the rule concerning non-compete clauses was unlawful and ruled that it could not take effect. The case was dismissed in September 2025 after the FTC withdrew its appeal. See Huang Chung-Wei & Chin Yu-Chien, "Learning from Others: Reflections on Taiwan's Market Development, Labor, and Trade Secret Protection in Light of the FTC's Final Rule on Non-Compete Clauses," *Intellectual Property Rights Journal No.320* (2025); FTC, "Federal Trade Commission Files to Accede to Vacatur of Non-Compete Clause Rule," available at https://www.ftc.gov/news-events/news/press-releases/2025/09/federal-trade-commission-files-accede-vacatur-non-compete-clause-rule (last visited Feb. 4, 2026).

[30] The laws and regulations in Taiwan concerning non-compete restrictions and the protection of trade secrets include, *inter alia*, Company Act arts. 32, 209; Labor Standards Act art. 9-1; Trade Secrets Act art. 10; and National Security Act art. 3.

authorities have argued that "no-poach" agreements may weaken competition and innovation incentives,[31] the need to account for local nexus effects will be determined on the basis of Taiwan's current market conditions and the FTA.

(3) Maintaining an Enforcement Approach Centered on Market "Contestability"

Technology giants such as Google, Amazon, Meta, and Microsoft have used their advantages in the digital economy to expand into the GenAI sector. Other major players such as Nvidia and OpenAI also occupy pivotal positions. In addition, the public comments indicated that key inputs such as capital, technology, talent, computing power, and AI infrastructure or models have considerably increased barriers to entry, intensifying concerns that "the large tend to become larger" and a trend toward a "winner-takes-all" environment. Nevertheless, because the market is highly dynamic and because the public comments suggested that excessive intervention by competition authorities may undermine innovation, the TFTC will adhere to the principle of market "contestability" set forth in the White Paper as its enforcement stance. In other words, only by maintaining the countervailing force from potential competitors — thereby ensuring that incumbents do not abuse their advantages to restrict competition — can competition be sustained and innovation enhanced.

On the basis of the TFTC's analyses of non-digital cases, factors such as the "number of competitors in the market," "product price levels," "differences in sales volumes," and "changes in market share" have commonly been used to determine whether a market is "contestable." However, these indicators are based on "current" and "static" market conditions. Accordingly, although they may serve as indirect or preliminary evidence of market contestability, they may not fully reflect the scope and severity of barriers to competition in the rapidly evolving GenAI sector. Hence, in assessing market contestability of digital platforms, the TFTC has gradually taken into account the

[31] See EC, "Commission Fines Delivery Hero and Glovo €329 Million for Participation in Online Food Delivery Cartel" (Jun. 2, 2025), available at https://ec.europa.eu/commission/presscorner/detail/en/ip_25_1356 (last visited Feb. 6, 2026).

"potentiality" and "probability" of market entry. In individual case analyses, the TFTC has also considered that even when limited or fragmented data can be ported from incumbent platforms to emerging ones, emerging platforms may be unable to challenge incumbents' market positions if they cannot obtain large-scale diverse data sets to generate useful information. In such circumstances, the "contestability" of the market may not be able to be re-activated. The TFTC will continue to refine its analytical capabilities in assessing market contestability on the basis of the aforementioned principles.

As GenAI gradually transitions to "ecosystems-based" development, the focus of competition is shifting from single products to integrated services. The TFTC must carefully examine whether improper competitive conduct occurs during the formation of "ecosystems," that may exclude potential competitors and reduce "contestability" within "ecosystems-based" markets. Such an examination of competitive behavior is essential to ensuring that ecosystems are shaped by effective competition. Indeed, fostering competition during the formation of AI ecosystems matters even more than policing them afterward, particularly for sustaining innovation dynamics and technological diversity. Structurally, the TFTC has observed that firms across the layers of infrastructure, models, and application deployment may form partnerships that are integrated through the ecosystem and may alter the competitive landscape.[32] Nevertheless, public feedback raised concerns that once ecosystems have been established, users may become locked into specific platforms and face high, anticompetitive switching costs. For example, market participants are concerned about Google's advantages in vertical integration (semiconductor chips, cloud services, and models) that result from its full-stack digital ecosystem.[33]

The TFTC will continue to closely monitor whether the business models of firms at different layers of the AI ecosystem prevent or restrict

[32] In January 2026, Apple and Google announced that Apple Intelligence and Siri services will adopt Google Gemini as their foundation model, a move that received considerable scrutiny from the market. See *Central News Agency*, "Apple's New Siri Partners with Gemini, Which Elon Musk Criticizes as Anti-Competitive Conduct" (Jan. 13, 2026).

[33] Following the release of Google Gemini 3, Google leveraged its integration with applications and services within its own ecosystem to influence the market position of OpenAI's ChatGPT. See *Central News Agency*, "AI Rivals Face Off: Google Strives on Its Ecosystem; OpenAI Emphasizes Accuracy" (Dec. 14, 2025).

"inter-ecosystem" and "intra-ecosystem" competition. The TFTC will also monitor whether cooperative arrangements between large AI firms and startups involve the use of market power through mergers, bundling, or other exclusive contractual arrangements that unduly restricts competitive opportunities for startups or imposes terms of partnership that are detrimental to market competition. The objective of such monitoring is to ensure that market participants can innovate and cooperate in a fair and open environment.

Additionally, based on the principles of "issue-driven" and "evidence-based" analysis, when assessing whether market contestability is affected by the improper use of "data" or "computing power," the TFTC will consider not only their "quantity" and "scale," but also their "qualitative" dimensions. In other words, how specialized, complete, and structural data are and how efficient, expandable, and technologically mature computing power is are equally critical considerations in determining whether firms can enter the GenAI sector.

Not only do the aforementioned observations align with the public comments, but they could also be further reinforced by international developments. For example, when OpenAI and Anthropic, two major GenAI firms, attempted to enter the biotechnology sector, they were required to obtain specialized data sets from biotech firms to ensure that their models could comprehend and operate within the biotechnological domain.[34] Furthermore, in developing its AI shopping platform, OpenAI collaborated with specialized platforms such as Shopify and Stripe to structure and manage large volumes of data.[35] In addition, OpenAI entered into a supply agreement with AI chip design startup Cerebras in early 2026 to secure sufficient and high-quality computing resources for the next stage of its development.[36] These cases reveal that applications

[34] Valida Pau & Stephanie Palazzolo, "OpenAI, Anthropic Discuss Data Deals with Biotech and Other Companies," *The Information* (Dec. 17, 2025), available at https://www.theinformation.com/articles/openai-anthropic-discuss-data-deals-biotech-companies (last visited Jan. 27, 2026).

[35] Ann Gehan, "OpenAI's Shopping Ambition Hit Messy Data Reality," *The Information* (Jan. 8, 2026), available *at* https://www.theinformation.com/articles/openais-shopping-ambitions-hit-messy-data-reality (last visited Jan. 26, 2026).

[36] Kate Clark & Berber Jin, "OpenAI Forges Multibillion-Dollar Computing Partnership with Cerebras: The ChatGPT-maker Is Racing to Secure More Computing Power, Especially for Responding to User Queries," *The Wall Street Journal* (Jan. 14, 2026) , available at https://www.wsj.com/tech/ai/openai-forges-multi billion-dollar-computing-partnership-with-cerebras-746a20e4?utm_source=copilot.com (last visited Jan. 27, 2026).

frequently require specialized hardware or algorithms to remain innovative and competitive. Large chip designers and cloud computing firms do not necessarily have advantages across all domains relative to smaller, specialized AI startups. This trend is evident in applications such as autonomous vehicles[37] and generative art and video.[38] These examples underscore the need for the TFTC to exercise caution in evaluating arguments equating the "scale" and "volume" of "data" and "computing power" with "market dominance" or a lack of "contestability." A nuanced approach ensures that the TFTC avoids stifling innovation momentum by misinterpreting competitive diversity within the GenAI sector.

(4) Strengthening Competition Assessment Under the "Rule of Reason"

To adhere to the principles of an "issue-driven" and "evidence-based approach," the TFTC must adopt the rule of reason as its analytical framework, under which the procompetitive and anticompetitive effects of disputed conduct by market participants are evaluated on a case-by-case basis. As indicated by the findings of the public consultation, opinions remain divided on whether — and to what extent — issues such limited access to key resources, self-preferencing by CSPs, bundling and ecosystems, constraints on talent mobility, partnerships between major AI firms and startups impact competition within the GenAI market. This observation further underscores the

[37] For example, BMW has partnered with Innoviz Technologies to integrate Innoviz's LiDAR sensors. See "Innoviz Technologies to Develop Lidar for BMW," *Photonics Spectra* (Jan. 27, 2026), available at https://www.photonics.com/Articles/Innoviz-Technologies-to-Develop-Lidar-for-BMW/a69214. The rationale for this collaboration is that autonomous vehicles require a real-time, low-latency fusion of edge computing and sensors. The cloud computing power of large AI firms alone is insufficient to assist safe driving and must be complemented by specialized hardware developed by startups. See *B. Zhang et al.,* "Multi-Sensor Data Fusion Meets Edge Computing for Intelligent Surface Vehicles," *8 IEEE Internet of Things Magazine. 127 (2025)*, available at https://ieeexplore.ieee.org/document/11025180/metrics (last visited Jan. 28, 2026).

[38] Adobe announced in 2025 that it had entered into a multi-year strategic partnership with Runway, an AI startup, integrating Runway's Gen-4.5 model into Adobe Firefly and Premiere Pro in an attempt to become a leader in generative video. See Press Release, Adobe, "Adobe and Runway Partner to Deliver the Next Generation of AI Video for Creators, Studios and Brands" (Dec. 18, 2025), available at https://news.adobe.com/news/2025/12/adobe-and-runway-partner (last visited January 27, 2026). Although Adobe possesses substantial scale and distribution channels, the novel generative video models developed by Runway (e.g., text-to-video) offer additional creative capabilities. Through this collaboration, Adobe integrated cutting-edge generative technologies into its ecosystem more rapidly than it could have through in-house development.

necessity of applying the "rule of reason" in competition assessments (except in cases of per se illegality) under the framework of the FTA.

AI ecosystem development may reflect a tendency of "large firms becoming larger" as certain large firms seek to expand their market influence by exploiting their advantages in resources, computing power, and talent. However, the rapid, dynamic development of GenAI technologies, in which model architectures, applications, and business models are continually evolving, may generate innovation over a brief period, yielding substantial and wide-ranging benefits for end users by lowering barriers to creation, enhancing productivity, expanding modes of expression, and facilitating cross-domain application integration. Therefore, although supply-side structural factors such as the number of competitors, market concentration, and barriers to entry remain key indicators in the TFTC's assessment of whether market competition is limited, the TFTC would not rely exclusively on indicators of market structure to presume illegalities of competitive practices unless evidence indicates that market structure is the dispositive factor for the overall competitive effect (including impacts on users). Instead, the demand-side effects of competition by GenAI firms, particularly the benefits of such competition to user choice, will also be considered by the TFTC.

In light of the development of generative AI toward "ecosystems," an important and challenging task for the TFTC in applying the rule of reason to competition assessments of the GenAI sector is to assess the net effects arising from the interplay between "intra-ecosystem competition" and "inter-ecosystem competition."

For example, public comments regarding "model applications" indicated that only a few firms with substantial research and development capital and extensive data resources are currently developing proprietary GenAI models. Given the high costs and uncertain commercial value of developing such models, application-layer firms increasingly depend on models provided by large technology companies and are compelled to accept restrictive clauses on competition that are imposed unilaterally. Regarding the issue of "users facing difficulties in switching between CSPs," the public comments further suggested that large CSPs occupy strong market positions and that switching services involves considerable

costs and technical barriers that limit users' ability to counteract abuses of market power such as discriminatory treatment or bundling. When applying the "rule of reason" to assess concerns of "intra-ecosystem competition" after users have adopted specific ecosystem models or services, the TFTC must evaluate "inter-ecosystem competition" or "competition for the market" in tandem to determine its impact on the overall outcome of the assessment, including

- whether restrictions on "intra-ecosystem competition," such as the technological compatibility highlighted in the public comments entrench or expand firms' market power to engage in "inter-ecosystem competition";
- whether the existence of "inter-ecosystem competition", as determined by the degree of substitutability between "open-source" and "proprietary models" highlighted in the public comments, redefines our analytical framework for "market definition," "market power," and "contestability," as opposed to the traditional intra-ecosystem analysis;
- if, as suggested in the consultation feedback, firms generally adopt a "multi-homing" strategy of using several cloud services, is such "inter-ecosystem competition" sufficient to offset restrictive effects on "intra-ecosystem competition," such that a presumption of no competitive harm could be made under the "rule of reason";
- when a firm asserts that restricting "intra-ecosystem competition" enhances the quality of service provided by its system and thereby strengthen "inter-ecosystem competition," how should the TFTC evaluate such a claim against the "efficiency" consideration and "legitimate justification" provided in the FTA; and
- across the foregoing issues, a common and critical factor is the role played by "innovation." How to distill, from the highly active, complex, and multifaceted innovation activities in the GenAI sector, the elements relevant to case-by-case review remains an ongoing focus to which the TFTC will place continuous efforts in the future.[39]

[39] TFTC, "Assessment of Innovation Factors in Competition Law Cases in the Digital Economy" (Outsourced Research Program, 2026).

Conclusion

With respect to the difficulties encountered by stakeholders in the development of infrastructure, models, and subsequent applications of GenAI, as well as potential competition concerns, the TFTC will adopt four principles to guide enforcement: issue-driven and evidence-based analysis, local nexus, market contestability, and the rule of reason. Overall, the public comments indicated that competition issues arising from the emergence of GenAI remain adequately addressable within the existing framework of the FTA. Nevertheless, in specific cases, the TFTC must remain abreast of the latest developments in academia and practical development; when such developments align with the current market situation in Taiwan, the TFTC should explore how they can be appropriately incorporated into case analysis to enhance the quality and precision of assessments of the competitive effects of GenAI.

To promote the development of GenAI industry and establish a safe environment for the application of AI, the Artificial Intelligence Basic Act, the legal basis for regulating the development of AI and its applications in Taiwan, was promulgated and adopted on January 14, 2026, to ensure the sustainable development of society during the emergence of AI. This Act stipulates that the Taiwanese government will proactively promote AI research and development, applications, and infrastructure. Regarding the industrial policies advanced by the National Science and Technology Council, the Ministry of Digital Affairs, and other competent authorities, the TFTC will communicate and undertake competition advocacy in a timely manner to ensure a balance between industrial development and market competition. Meanwhile, as competition issues in AI are intrinsically cross-border and cross-sector, the TFTC will continue to engage with international platforms such as the Organization for Economic Co-operation and Development (OECD) and the International Competition Network (ICN), while exchanging views and sharing experiences with competition authorities from other jurisdictions.

Finally, the TFTC reiterates that its enforcement position and policy direction are based on current conditions of industry development and market competition. Going forward, to respond to competition constraints resulting from rapid development in the AI industry, the TFTC will

dynamically calibrate its enforcement strategies, prudently adopting measures to address specific competition concerns while striking a balance between maintaining fair market competition and promoting innovation.