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Master Thesis

Comparison of Substantive Standard of Antimonopoly Regulation of M&A between China and European Union

By

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Major: European Union Law (English)

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I, ZHOU YUNCHONG, hereby declare that, I am the author of this thesis and it is my original research work. This work has not been submitted anywhere else, either in part or whole, for a degree or other academic credits. I undertake the sole responsibility for any inaccuracy in this declaration.

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ABBREVIATIONS

M&A---Merger and Acquisition

TFEU---the Treaty on the Functioning of the European Union

EC---European Community

MD---Market Dominance

SIEC---Significantly Impedes Effective Competition

SSNIP---Small but Significant and Non-Transitory in Price

EUMR---European Union Merger Regulation

LIFO ---Little in from Outside

LOFI ---Little out from Inside

CRn index---the Concentration Ratio

HHI---Herfindahl-Hirschmann Index

MCI ---Market Concentration Index

NCAs ---National Competition Authorities

NDRC---National Development and Reform Commission

SAMR ---State Administration for Market Regulation

UPP ---the Upward Pricing Pressure

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Chapter I: Thesis Proposal

I. Content

A. Research Background:

With the development of economic globalization, international trade exchanges have become increasingly relevant. The enthusiasm for foreign investment has also continued to increase. As an essential way of global investment, M&A plays an increasingly important role in the world economic development. Especially since the late 1990s, with the continuous improvement of China's opening to the outside world, the number of M&A has increased rapidly and swept across the country. While M&As bring opportunities to China's economic development, it may also disrupt the competition in the local market economy, thereby hindering China's economic growth and development.

In the field of economic law, in order to regulate market competition, China promulgated the Law of the People's Republic of China for Countering Unfair Competition and the Anti-Monopoly Law of the People's Republic of China in 1993 and 2008 respectively. Substantially, China's Anti-Monopoly Law is more analogous to the competition law system in the European Union. The principal regulatory content includes the traditional three branches: the monopoly agreement, abuse of market dominance and concentration/merger control. The different part of China's Anti-Monopoly Law and EU Competition law is the limitation of government rights. China's Anti-Monopoly Law contains the abuse of administrative power to exclude and limit competition.[1] But in the EU, the Treaty on the Functioning of the European Union (TFEU) Article 106 is in the state aid provisions. The provision of the monopoly agreement and the abuse of market dominance mainly concern the daily economic activities of the enterprises, and the competition authorities take an active investigative stance in those two areas, especially in the horizontal monopoly agreements. The enactment of the Anti-Monopoly law in China is late compared to EU, and the research on the antimonopoly enforcement system is still immature. There are still some imperfections in the Anti-Monopoly Law and related support systems. The EU's merger control system started earlier and developed rapidly. Merger control constitutes one of the instruments of EU competition law. It aims at ensuring that competition in the internal market is not distorted by corporate reorganizations in the form of concentrations. It is based on Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EU Merger Regulation), its Implementing Regulation and related Notices and Guidelines. Such a relatively mature

[1] Ye Jianmu, Cross-border M&A, Motivation, Regulation and Risks, Economy Regulation Office, 2012, p15.

system undoubtedly has a significant reference for the improvement of China's merger control system.

Especially, in recent years (particularly in 2009 and from 2013 onwards), the European Commission has taken stock and assessed the functioning of different aspects of EU merger control and identified possible areas for refinement, improvement and simplification. In particular, the European Commission adopted in 2014 the White Paper---Towards More Effective EU Merger Control (the White Paper). Based on the White Paper, the Commission carried out a public consultation.

From 7th Oct 2016 to 13th Feb 2017, the Commission was holding public consultations on evaluation of procedural and jurisdictional aspects of EU merger control.[2] In light of the positive feedback on the White Paper's proposals on simplification and the European Commission's general objective to cut red-tape where possible, it appears appropriate to explore whether there is room for further simplification of EU merger control.[3] Similarly, the evaluation seeks feedback on the functioning of the case referral system between the Member States and the Commission. The result of this consultation was publicized on the website of the EU Commission in July of this year. Overall, more than 90 public and private stakeholders submitted their views (15 national competition authorities ("NCAs"), 7 other public bodies, 31 associations, including industry and consumer associations, 21 companies, 19 law firms, 4 research institutes and 1 from private individuals).[4]

During the last decades, the merger of resources to achieve integration and enhance market competitiveness is the good choice for many domestic and foreign enterprises. Merger control is part of the branches of traditional competition law. Distinct from the monopoly agreement and abuse of market dominance, competition authorities take a comparatively passive regulatory approach to merger. When the mergers and acquisitions to be conducted by the enterprise, it may have a lasting impact on the whole market structure. The related enterprises have reached a certain standard in their turnover, and they will have an obligation to produce a declaration with the competition authorities. Generally speaking, the so-called "turnover" standard means the sum of the sales revenue obtained by the relevant enterprises participating in the concentration of selling goods or providing services in the last fiscal year exceeds a certain amount.

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[2] Merger Control Consultation(http://ec.europa.eu/competition/consultations/2014_merger_control/index_en.html)

[3] Summary of replies to the Public Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control, July 2017, p5 (http://ec.europa.eu/competition/consultations/2016_merger_control/summary_of_replies_en.pdf)

[4] Summary of replies to the Public Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control, July 2017, p12 (http://ec.europa.eu/competition/consultations/2016_merger_control/summary_of_replies_en.pdf)

B. The Main Issues and Subtopics:

As far as the existing literature in China and abroad is concerned, there are plenty of books and papers focusing on merger in China and the EU, but both are too outdated. In particular, most of the research on mergers and acquisitions between China and EU now only focuses on the introduction of the EU system. In recent years, the study on the latest EU policy has been inadequate. The actual cases, specific to the Internet companies' mergers and acquisitions is basically non-existent. I hope I can, through my research, first give suggestions on merger and EU enterprises' investment in China in the domestic legislation of Antimonopoly Law area. Second, it gives guidance on merger control of EU enterprises by domestic enterprises. Thirdly, through the case study of mergers between Internet companies, I hope to make some suggestions on the existing legislation of the EU. Finally, through the study of the EU merger control system, I hope to make some suggestions for China's legislation. Now the EU is working on new issues--- effectiveness of the turnover-based jurisdictional thresholds of the EU Merger Regulation: the EU Merger Regulation only applies to concentrations of a Union dimension, which are those where the undertakings concerned meet the relevant turnover thresholds. A debate has recently emerged on the effectiveness of these purely turnover-based jurisdictional thresholds, specifically on whether they allow capturing all transactions which can potentially have an impact on the internal market. This may be particularly significant in certain sectors, such as the digital and pharmaceutical industries, where the acquired company, while having generated little turnover as yet, may play a competitive role, hold commercially valuable data, or have a considerable market potential for other reasons. For China, the new policy means a new challenge. I hope to provide some suggestions for the future merger of Chinese enterprises especially Chinese state-owned enterprises.

C. Research Object and Purpose:

This thesis seeks to answer the research questions: What is M&A? What is the development and present situation of EU merger and acquisition legislation? What is different merger substantive review criteria between EU and China? In the face of the development of the Internet industry and high-tech industries, what are the challenges facing the existing merger control system in China and the EU? In order to answer foregoing questions, the research will be conducted as following:

Firstly, I will clarify the concept and influence of merger, which is the basis of this thesis. I would like to analyze the relationships between merger and merger control.

Secondly, I will study the historical changes in EU merger control legislation for mergers and acquisitions, and analyze the substantive standards at different stages. Then I will study the factors considered in the merger control, and finally discuss the new problems facing the EU merger control and give solutions.

Third, through the comparison of the EU's merger control system, I will study China's merger assessment legislation. I will clarify the challenges faced by China's mergers and acquisitions and the legislative development that it brings.

Finally, I will point out the inadequacy of China's legislation in the field of merger control and analyze the reasons. Then give a solution.

D. Research Methodology:

1. Literature Reference

Through the literature references, including books, journals and reports, the understanding of the basic concepts will be discussed in this thesis. In this thesis, I will mainly concern merger and Merger Control Regulation. There are many basic legal concepts which will be discussed, for instance, the difference between merger, acquisition, concentrations, and the One-Stop-Shop Principle, the EU dimension, and Undertakings concerned. In order to assess the innovation of EU merger, it is the first step to study the contents of those concepts.

2. Case Study

In practice, many disputes happened concerning the merger. In those cases, the conflicts are pretty concrete. For example, to what extent the company’s merger can be allowed. Because the application of the procedural protection is dependent on the specific rules. There is no foundation for pure legal analysis without case analysis. I will compare and analyzes the cases of the merger of the EU and China. From European Union Commission official website, I can use the search engine to find 52 cases about anti-monopoly and merger. I think the best way to do legal research is case analysis.

3. Comparative Study

The purpose of my study is to compare and analyze the legislation, merger regulation, substantial standards, etc. of merger between member states of the EU, to give some advice to China Anti-monopoly legislation. Secondly, by studying the merger system in the EU and the undertaking's mergers and acquisitions between China and the EU in recent years, I hope I can give some help to Chinese enterprises on the merger issue to prevent the mergers and acquisitions from being banned. Although most of China's anti-monopoly laws have been transplanted from relevant EU treaties, regulations, guidelines and notices, the basic political systems, national systems, and economic development levels are not the same. The so-called economic base determines the superstructure. To give a very simple example, in the EU, in principle, member states cannot fail to implement competition laws on the grounds of their respective industrial policies. But in China, the industrial policy still plays a crucial role in many industries. However, it is worth mentioning that "Several Opinions on Promoting the Reform of the Price Mechanism" have put forward the proposal of "accelerating the establishment

of a coordinating mechanism for policies on competition, policies on industries and investment, implementing a fair competition review system and promoting a unified, open and orderly market system Construction."

4. Economic analysis

The main part of the centralized review focused on economic analysis, that is, competition authorities through the market concentration, participation in the concentration of the market share of enterprises, consumer substitution, supply substitution, consumer coping capabilities, potential competitors into the market more easily factors, to judge/predict whether a merger will have a lasting negative impact on the future of the market. The definition of the "relevant market" in the first step is often the focus of controversy among all parties. The definition of "relevant market" is even more inseparable from the analysis of economics.

Chapter II: Introduction of M&A

With the development of economic globalization, international trade exchanges have become increasingly relevant. The enthusiasm for foreign investment has also continued to increase. As an essential way of global investment, M&A plays an increasingly important role in the world economic development. Especially since the late 1990s, with the continuous improvement of China's opening to the outside world, the number of M&A has increased rapidly and swept across the country. The concentration of economic power under the control of a single company can lead to a reduction in the intensity of competition, in particular by creating or strengthening a position of "dominance" on one or more markets.[5] While M&A bring opportunities to China's economic development, it may also disrupt the competition in the local market economy, thereby hinder China's economic growth and development.

2.1 Definition of Merger and Acquisition

2.1.1 The Concept of Merger and Acquisition

The concept of merger and acquisition is derived from the extension of the concept of M&A. In Encyclopedia Britannica, the concept of Merger is corporate combination of two or more independent business corporations into a single enterprise, usually the absorption of one or more firms by a dominant one. A merger may be accomplished by one firm purchasing the other's assets with cash or its securities or by purchasing the other's shares or stock or by issuing its stock to the other firm's stockholders in exchange for their shares in the acquired firm (thus acquiring the other company's assets and liabilities).[6] According to Black's Law Dictionary, merger refers to "the act or an instance of combining or uniting."[7] A merger by absorption occurs if one company is absorbed into another, with the loss of its legal personality. If two or more undertakings are merged into a new company than it amounts to a merger by the creation of a new company.[8] According to Article 3(1)(a) of the European Union Merger Regulation (EUMR), the term "Concentration" is defined as "a change of control on a lasting basis [resulting from] the acquisition, by one or more persons already controlling at least one undertaking, or by one or more undertakings, whether by purchase of securities or assets, by contract or by any other means, of direct or indirect control of the whole or parts of one or more undertakings."[9] Generally, there are two types of acquisitions: share acquisition and asset acquisition.[10] In the

[5] Rosenthal/Thomas, European Merger Control, Verlag C.H. Beck Munchen, 2010, p1.
[6] The New Encyclopedia Britannica, Oversea Publishing House, 1997, 32v.
[7] Black's Law Dictionary, 8th Edition, West Pub. Co, 2004, p3134
[8] Black's Law Dictionary, 8th Edition, West Pub. Co, 2004, p3135
[9] Article 3(1) EUMR.
[10] Zhong Lun W&D Law Firm, Corporate M&A Practice and Legal Risk Prevention and Control (Second

acquisition practice, the main difference between the two types is that the acquisition of the share is the purchase of an enterprise's equity, and the acquirer will become a shareholder of the target enterprises. Therefore, the company's credits and liabilities are limited to the shares; the acquisition of assets is merely a purchase or sale of assets. The acquirer does not need to bear the debt of the target company.[11] Both asset acquisition and share acquisition are the actions of a company to gain control of another company by acquiring all or a portion of the property rights of this company. Both are subject to antimonopoly law control, but there are significant differences between the two:

(a) The subject of the behavior is different. The former is a transaction between companies. The requirements for the organization are not limited to the company (although with the development of modern corporate systems, the organization has legal personality is mainly the company), the latter is the transaction between the acquiring company and the target company's shareholders.

(b) The acquirer has different responsibilities. The asset purchaser does not bear the debts of the target company, and may not accept employees or related pension plan obligations. In contrast, the share acquisition company bears the target company's risk liability, pension plan obligations, etc.

(c) The handover procedure is different. The asset purchase contract is relatively simple. The contract content only specifies the asset name, right and interest status, delivery method and time, etc. Acceptance according to the single order can be sufficient; share acquisitions are complicated. When a public tender offer is made, it is necessary to issue a complicated takeover bid. After the acquisition is successful, the target company's board management team is often restructured.

(d) Different legal regulations. The acquisition of assets is mainly regulated by the contract law and the antimonopoly law. The share acquisition is mainly regulated by the company law, the securities law and the anti-monopoly law. It has more information disclosure obligations than the asset purchase.[12]

Analyzed from the legal form, the main difference between merger and acquisition is that the final result of merger is two or more legal persons merge into one legal person. The outcome of the acquisition will not change the number of legal persons, but change the ownership of the target company and the ownership of business management rights. At present, M&A is still a concept with indefinite content. Its content and scope differ according to the legal system of each country, the historical conditions of social and economic development, and the basic attitudes it has adopted for competition policies. As Wesleyan has pointed out, a country's anti-monopoly law and the establishment of the specific content and scope of merger and acquisition is a product of a compromise between the country's competition policy and the government's implementation of its

Edition), China Legal Publishing House, 2017, p6.

[11] Hu Feng, Conceptual Definition of Corporate Mergers and Acquisitions: An Overview, Chongqing Social Science, 2002, vol.3, p12.

[12] Duan Aiqun: Research on Legal Methods and Financial and Fiscal Policy Issues in Cross-border M&A, Law Press, 2015 Edition, p5

industrial policy.[13] As far as the domestic market is concerned, mergers and acquisitions can increase market power, change market shares and market competition structures, and have the same effect on economic development. That is, a company ultimately controls the ownership and the management right of enterprises.

Merger and acquisition is a form of international direct investment. That is, to achieve a certain purpose[14], a company obtains some or all of the shares or assets of another country's enterprises through certain channels and payment methods, thereby implementing actual or complete control over the latter's operations and management. Among them, the former is known as the acquirer, and the latter is called the target company. The "channels" mentioned here include the forms in which acquirer directly invest in the target companies or through the subsidiaries of the target companies. The "payment methods" includes payment of cash, loans from financial institutions, exchange of shares, and issuance of bonds.

In China, the definition of cross-border merger and acquisition are specified in the Provisions on the Merger an Acquisition of Domestic Enterprises by Foreign Investors (Revised 2009): For the purpose of these Provisions, the term "merger and acquisition of domestic enterprises by foreign investors "shall mean a foreign investor purchases the stock right of a shareholder of a non-foreign-invested enterprise in China(domestic company) or capital increase of a domestic company so as to convert and re-establish a domestic company as a foreign-invested enterprise(equity M& A), or, a foreign investor establishes a foreign-invested enterprise and purchases and operates the assets of a domestic enterprise by the agreement of that enterprise, or, a foreign investor purchases the assets of a domestic enterprise by agreement and uses this asset investment to establish a foreign-invested enterprise and operate the assets (asset M& A).[15]

2.1.2 The Types of Merger

Regarding the classification of merger, the international practice is to classify merger parties into three different types according to whether they are in the same or different stages of production and operation:

(a) Horizontal merger

A concentration between actual or potential competitors is often referred to as a "horizontal merger".[16] Horizontal merger refers to merger between companies that have competitive relationships, in the same industry, the same business areas, and the

[13] Wesleyan, The Basic Principles of Corporate Concentration Rules: A Comparative Study of Antitrust in the United States, Japan, and the European Union[M]. 2001. Oxford. p63

[14] Merger and acquisition are very effective ways to help companies acquire resources, advanced technologies and optimize the industrial structure, and achieve rapid expansion at a low cost. See Chul Song Lee, M&A and Corporate Governance, Social Science Literature Publishing House, 2015 edition, pp103-107.

[15] Provisions on the Merger an Acquisition of Domestic Enterprises by Foreign Investors (Revised 2009) Article 2.

[16] Rosenthal/Thomas, European Merger Control, Verlag C.H. Beck Munchen, 2010, p116. See, e.g., Horizontal Merger Guidelines, para 5. See, for example, Case COMP/M.5727(Microsoft/Yahoo)

same production products. The greatest benefit of this kind of merger and acquisition is that it is conducive to achieving economies of scale and lowering the cost per unit of product. Therefore, it has become an effective method to get profit and commonly used by companies in more than two countries. However, this approach also makes it easier to create an enterprise that has a larger market share than before or seriously increase the existing market power of a single company. It can even create a monopolistic market that will cause lasting damage to consumers. On the other hand, this approach is also more likely to lead to coordinated effects by competitors. The direct consequence is to impact competition, lead to monopolies in different sectors of the market, and increase the possibility of companies abusing their market dominant position. Therefore, this approach is most strictly regulated in anti-monopoly laws in various countries.

(b) Vertical merger

Vertical merger refers to merger between the relationship of two companies is buyers or sellers to each other in the production and sales phase, that is, a concentration between undertakings that are active on markets upstream or downstream from one another.[17] The purpose of merger in this way is usually to increase the supply of raw materials at low prices or expand the sales of products, and to increase the exclusive power of these companies in their respective markets. It will also hinder competitors' supply channels and sources of supply at these two market levels, and at the same time create barriers to market entry for other companies. Also, another monopoly consequence is the ease of collusion between enterprises in a particular manufacturing or sales chain. As a general rule, however, vertical mergers are recognized by the Commission as raising fewer competitive problems than horizontal mergers.[18]

(c) Conglomerate merger

Conglomerate merger refer to merger between companies in two or more countries in different industries. Its purpose is to achieve a global development strategy and diversification strategy, reduce the risk of operating in a single industry, and enhance the company's overall competitiveness in the world market. The both sides of a conglomerate merger have neither a competitive relationship nor a commodity trading relationship, so they have no direct restrictive influence on competition. In the EU, the Commission recognizes that "conglomerate mergers in the majority of circumstances will not lead to any competition problems."[19] However, in the long-term, this approach may lead to economic concentration and increased market power. Anti-competitive conglomerate effects may arise from mergers between companies that are active in closely related markets.[20]

The above three types of merger are reflected in the merger of companies in various

[17] see, e.g., Non-Horizontal Merger Guidelines, para 4. See also, e.g., Weck/Scheidtmann, Non-Horizontal Mergers in the Common Market: Assessment under the Commission's Guideline's and Beyond, 2008 E.C.L.R. p480.

[18] Non-Horizontal Merger Guidelines, para 12.

[19] Non-Horizontal Merger Guidelines, paras 91-92.

[20] Non-horizontal Merger Guidelines, para 91. See, e.g., Petrasincu, The European Commission's New Guidelines on the Assessment of non-horizontal mergers-great Expectations Disappointed, [2008] E.C.l.R. 221, 226, see also, Dethmers/Dodoo/Morfey, Conglomerate Mergers under EC Merger Control: An Overview, European Competition Journal, October 2005, PP. 265 et seq. Hofer/Williams, non-horizontal Mergers, The European Antitrust Review,2007, pp. 6 et seq.

countries (China, EU, US, United Kingdom, Japan and etc.,), especially horizontal merger. Horizontal merger since 1998 has occurred almost in all industries around the world. Therefore, it has become the main regulatory object of the anti-monopoly law in those countries.

2.2 The Relationship between Merger and Monopoly

Everything has its two sides. The fact that merger can flourish economy on a global scale. The last 30 years shows that merger have their advantages and strengths. Merger comply with the laws of economic development and can help companies make a profit for the shareholders so that this method was adopted by many companies and become their first choice for foreign investment. However, merger also have their inevitable negative impacts. One of the biggest and most obvious ones is that in the process of continued escalation of merger, the concentration of production and market share in the relevant industries has been greatly increased, which may lead to a monopoly. Merger is a veritable “double-edged sword.” The preceding part of the text has analyzed the basic types of merger. The following section discusses the relationship between the three basic types of merger and monopoly.

2.2.1 The Relationship between Horizontal Merger and Monopoly

Horizontal mergers may raise concerns because the actual or potential competition that previously existed between the merging firms is eliminated (“non-coordinated effects”. Known in the United States as “unilateral effects”).[21] Moreover, horizontal mergers may change the structure of the market in such a way as to reduce the intensity of competition among the participating firms (“coordinated effects”).[22] The foreign capital invests into the host country solved the problem of insufficient funds in the host country. But with the increased number of horizontal acquisitions of foreign companies for host countries, it would reduce or even eliminate competitors that produce the same products in the host market. When the number of competitors of the same product in the host market is too small, the market concentration will be too high and the effective competition in the host country market will be threatened. Because with the investment of foreign capital, it will expand the market power of enterprises in the host country market, thereby increasing the possibility of abuse of market advantages in the market, which will affect and limit the effective competition of the host market, until the formation of a monopoly. Mainly in the following two aspects:

First, horizontal merger will cause the host country's domestic economy to concentrate, which will lead to coordinated effects among enterprises. The merger of multinational companies in host countries can increase the degree of market concentration and

[21] Horizontal Merger Guidelines, paras 24,24 n.27.
[22] See infra Section C.III,3. (coordinated Effects).

directly reduce or even completely eliminate other competitors in the market. As a result, the number of companies with independent status in the market is decreasing, threatening effective competition. Under this condition, coordinated effects between collectively dominant companies on a (concentrated) market can affect various parameters of competition. [23] The coordinated effects mean that merger create structural conditions for manufacturers in the industry that are conducive to conspiracy. When a small number of companies jointly occupy a very high market share, in order to achieve a monopoly profit, they may, through open or secret methods, reach an agreement on joint price increases. Equally, coordinated effects may result in capacity and output reductions or in a dividing of markets (geographic or customer allocation or market division by allocating contracts in bidding markets("bid-rigging")).[24] Under the condition of a reduction in the number of enterprises, horizontal monopolistic behavior among enterprises can generally be successful.[25]

Second, non-coordinated anti-competitive effects will mainly arise when the horizontal merger creates or strengthens a position of single firm dominance.[26] If multinational companies acquire a substantial market share through merger, this merger may have the effect of enhancing the enterprise's market power and the companies may have a position of dominance and it can also limit competition until monopoly. A position of dominance for the purposes of the EUMR is, thus, enjoyed by one or more undertakings when that undertaking or those undertakings wield economic power which would enable them to prevent effective competition from being maintained in the relevant market by giving them the opportunity to act to a considerable extent independently of their competitors, their customers and, ultimately, of consumers. [27] The non-coordinated anti-competitive effects of merger companies are mainly reflected in product prices. For example, In the homogenous product market, companies compete through production, production levels, and production capabilities. The two companies that produce similar products choose to reduce their output after merger, while other companies do not change their competitive strategies, that is, they do not reduce their output. However, due to their limited production capacity, they cannot fill market vacancies in a short time, and the market is in short supply. The situation, so that the prices of products in the market will rise, resulting in non-coordinated effects in the differential product market.

Before the horizontal merger, any company will unilaterally increase its price will suffer losses. However, after horizontal merger, two companies with market dominance, in which company A raises the price of its products, some sellers will abandon the purchase of price-raising products, and some of these consumers will switch to buy company B's products. This increased the profits of company B. Even if company B

[23] Horizontal Merger Guidelines, para 40.
[24] Horizontal Merger Guidelines, paras 40 and 46.
[25] See Ivaldi et al., The Economics of Unilateral Effects: Interim Report for DG Competition, European Commission (November 2003) (Final draft),4.
[26] Rosenthal/Thomas, European Merger Control, Verlag C.H. Beck Munchen, 2010, p117.
[27] Case T-102/96 Gencor v. Commission [1999] E.C.R. II-753, para 200; Case IV/M.053 (Aerospatiale Alenia/de Havilland), paras 51 and 72.

also raises its price, some consumers may turn back to company A's products, and the company's price-raising goal is achieved, resulting in a unilateral effect. Therefore, some companies will use horizontal merger to increase the price of goods, and thus profit. This kind of influence does not mean that an merger has an immediate impact on the market, but rather refers to its long-term impact on the market, that is, a potential impact. At this time, the consequences of damage to market competition are far more important than the consequences of harm to the market caused by the harmonized restrictive competition agreements among enterprises. In other words, horizontal merger between companies with a large share of the market may impose undetectable restrictions on market competition.

The above analysis is about the impact of horizontal merger on host countries. If merger are carried out in many countries at the same time, such as General Motors Corporation of the United States, its subsidiaries, and joint operations abroad are not only related to Germany, the United Kingdom, Japan, France, and Canada. The developed countries such as Italy, Australia, Switzerland, and Spain are also involved in South Korea and other countries with rising industries. They also include countries such as Mexico, Brazil, the Philippines, Thailand, Argentina, and Democratic Republic of Congo. Their business has spread all over the world, ranked as the world's largest industrial company for several consecutive years.[28] If such large multinational corporations use their global advantages to control the market, the consequences for the global economic competition will be disastrous. Therefore, it is essential to control horizontal merger strictly. In fact, in the three types of merger, horizontal merger are most commonly considered to impede effective competition and are also the most likely to be prohibited by law. The anti-monopoly regulation of merger by the European Union and China mainly involves horizontal merger of enterprises.

2.2.2 The Relationship between Vertical Merger and Monopoly

Vertical merger and conglomerate merger are collectively referred to as non-horizontal merger. In the Non-Horizontal Mergers Guidelines which were issued in late 2008, the Commission stresses that “non-horizontal mergers are generally less likely to significantly impede effective competition than horizontal mergers” since they do not entail the loss of competition and provide substantial scope for efficiencies.[29] Vertical merger can enable companies to gain significant efficiency advantages. On the one hand, they can make suppliers stabilize their sales channels. On the other hand, buyers can stabilize the sources of materials, semi-finished products or products, thereby saving transaction costs and improve the company's production efficiency. However, if the scope of the MNC’s vertical merger of the host country's coverage market is too large, it will cause damage to the market structure of the host country and other competitors.

[28] David. J. Geber: "Law and Competition in Europe in the Twentieth Century", translated by Feng Keli and Wei Zhimei, China Social Sciences Press, 2004, p471.
[29] Non-Horizontal Merger Guidelines, paras 11-13.

For example, if companies in the downstream market take the strength of upstream market companies as a strong backing, then companies in the downstream market can dump their products at a low price to squeeze out competitors. If there is no strong raw material supplier for such dumping behavior, it is often difficult for manufacturing enterprises or sales companies in the downstream market to complete by themselves. Another possible harm to competition is "foreclosure". Foreclosure effects arise where the vertical merger restricts, hampers or eliminates actual or potential competitors' access to supplies or markets thereby reducing their ability or incentive to compete with the merged entity, that is, foreclosure can have the effect of discouraging the entry or expansion of competitors into the market or encouraging their exit.[30] I will analyze the threat of foreclosure effects in following two aspects:

First, the input foreclosure. Input foreclosure is the exclusionary restriction, or elimination, of access to inputs needed by actual or potential competitors of the downstream division of the merged firm, with the effect that the ability and incentive of these companies to compete is reduced.[31] After the vertical merger, the merged entity may place other actual or potential competitive companies in an unfavorable competitive position. Because the merged entity may refuse to deal with other competitors in the related downstream market (total foreclosure) or they may supply inputs with unreasonable high prices, restricted amounts or in the unfair conditions (partial foreclosure). Such merger will reduce the chances of enterprises that have not participated in merger to join in the transactions. They have to raise the costs because they will not be able to enter the market that has been closed due to vertical merger, which may result in the monopoly of the merged companies.

Second, the customer foreclosure. Customer foreclosure (output foreclosure) is the exclusionary restriction, or elimination, of access to customers needed by actual or potential competitors of the upstream division of the merged firm, with the effect that the ability and incentive of these companies to compete is reduced.[32] After vertical merger, if the customer company has very strong purchasing power in the downstream market, the company may refuse to deal with other competitive suppliers in the upstream market or force other suppliers to reduce supply prices except for their own suppliers. It is also a kind of impediment to competition, and it may reduce the rival's ability to compete with the merged entity in the related market. If competitors of the upstream division find it harder to compete as a result of the customer foreclosure, these competitors are likely to reduce output or raise prices.[33] The final effects of customer foreclosure are just like input foreclosure, which is the lower the quality of goods and restriction of competition.

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[30] Non-Horizontal Merger Guidelines, paras 18.
[31] Non-Horizontal Merger Guidelines, paras 18.29-31.see, e.g., Case COMP/M.5406 (IPIC/MAN Ferrostaal AG), paras 32 et seq.; COMP/M.4854 (TomTom/Tele Atlas). Para 191; Case COMP/M.4942 (Nokia/NAVTEQ), para 277.
[32] Non-Horizontal Merger Guidelines, paras 18.29-30. See COMP/M.4854 (TomTom/Tele Atlas). para 191;
[33] Rosenthal/Thomas, European Merger Control, Verlag C.H. Beck Munchen, 2010, p167.

Vertical merger may also bring coordinated effects to the domestic market. The coordination can increase barriers to market entry and higher prices. Because of the merger, acquiring companies are often economically strong and have developed very well. Companies that are potentially entering the market not only need to consider the economic strength of their competitors, but also have to consider the economic strength of the upstream companies that are associated with this competitor. This invisible pressure on potential companies intending to enter the market has increased the potential competitors' consideration before entering the market, which has greatly increased barriers to market entry. For instance, the competition in the cosmetics industry is very fierce. If a domestic cosmetic ingredient supplier with a good reputation is acquired by a cosmetic company with an international brand, not only the existing companies in the cosmetics market will have to increase the cost of obtaining such ingredients, but also they may be expelled from the market. Potential competitors will encounter great difficulties when entering the market, and even if they enter the market, they have to pay a higher cost. If other rivals cannot find a stable ingredient supplier that meets certain standards like the existing production companies on the market, it cannot enter this market. Vertical merger can also facilitate conspiracy between firms in a particular manufacturer or sales chain, leading to price discrimination. After the completion of vertical merger, it is easier for a firm to determine the prices and costs of its competitors where the firm is also a customer or supplier of those competitors.[34] This situation has resulted in discriminatory price conditions.

It can be seen that horizontal merger can form a monopoly or have a tendency to form monopolies. Vertical merger can also produce the same results. The expansion of market monopoly and market power is the main proof of vertical merger that "the possibility of impairs effective competition."[35] Nevertheless, because the impact of vertical merger on market competition is not as obvious as horizontal merger, both China and EU take looser control on vertical merger. There were only a few cases of non-horizontal merger decided into Phase II of merger control.

2.2.3 The Relationship between Conglomerate Merger and Monopoly

In the most circumstances, conglomerate merger will not affect competition. However, anti-competitive conglomerate effects may arise from mergers between companies that are active in closely related markets.[36] Regarding the anti-competitive effects of conglomerate mergers and acquisition, there is a theory called "intimidation theory". For instance, multinational company A that manages X products acquires company B

[34] Shibing Cao, Antimonopoly analysis, Beijing, Law Press China. Edn4, 2006, p190.
[35] Liza Lovdahl Gormsen, Article 82 EC: Where are we coming from and where are we going to, the competition law review, March 2006, p4.
[36] Non-Horizontal Merger Guidelines, para 91. See, e.g., Petrasince, The European Commission's New Guidelines on the Assessment of Non-Horizontal Mergers-Great Expectations Disappointed, [2008] E.C.L.T. 221,226; see also Dethmers/Dodoo/Morfey, Conglomerate Mergers under EC Merger Control: An overview, European Competition Journal, October 2005, pp.265 et seqq.

that operates Y products in a country. If potential competitors of company B want to enter the market, it is necessary not only to consider the market position of company B, but also to consider the strength of company A. Enterprise B may rely on company A's financial resources to implement predatory pricing for small competitors and even set the price of the product under cost. In this way, not only existing rivals can be forced to leave the market, but also potential competitors around the market can be “intimidated”, thus giving up their intention to enter the market. If both A and B are companies that occupy a dominant market position in one or several markets respectively, then such a potent concentration not only allows the company to increase the opportunities into other markets and expanded their influence but also strengthened their dominance in these markets. The merged entity may form dominant positions in both merger countries.

Among horizontal merger, vertical merger and conglomerate merger, anti-monopoly law is the most concerned with horizontal merger, because it can enable foreign capital to easily acquire the acquired party's resources, channels, and brands in a short period. The rapid expansion of market share and market power in the host country has strengthened the dominance position of foreign capital in the host country market. Especially when large-scale merger of foreign companies in host countries, foreign-funded companies may even control an important industry in the host country, threatening the economic security of the host country and influencing the independence of national industry. In this situation, the control of foreign enterprises of one industry is not a problem, and rarely does create problems, but the premise is that competition can be effectively safeguarded. Therefore, when regulating monopoly issues in merger, horizontal merger should be the major focus, vertical merger and conglomerate merger should be the secondary focus.

Chapter III: European Merger Control Substantive Standard

In this chapter, I will first introduce the change of European Union merger substantive review criteria and analyze the strengths and weaknesses of standards by comparing the historical changes of different review standards and related treaties, regulations. Then I will study how the EU determines that a merger has the potential to impede competition. Through the analysis of market definition, market share and concentration levels, and comprehensive consideration of the impact of compensation factors, I sort out the factors that determine whether there is monopolistic merger. Finally, with the rapid development of new technology industries and the Internet industry, I will analyze the effectiveness of turnover-based thresholds and present my views. Then I will give my suggestions based on the challenges brought by modern social development to the European Union's merger of turnover-based jurisdictional thresholds.

The substantive test standard of merger is the criterion for judging whether a merger can be allowed, and it is also the core of a country's merger supervision system. The substantive test under the revised EUMR could be applied using consumer welfare, total welfare or efficiency as the criterion for determining the effect of mergers on market performance.[37] Merger substantive review is the process by which anti-monopoly authorities apply statutory examination standards to specific cases. These substantive review standards constitute a substantive law for the anti-monopoly regulation of merger in various countries. So far, the substantive review standards of EU have gone through three stages of development from the “Abuse of a Dominant Position” standard to “Market Dominance” standards (MD) to “Significant Impediment to Effective Competition” standard (SIEC).[38] However, with the development of emerging technologies, there are many new industries and companies that continue to emerge. Only using “significantly impedes effective competition” as a substantive examination standard, and purely turnover-based jurisdictional thresholds cannot effectively protect competition. Therefore, in this chapter, I will start with the reform of the European Union’s merger substantive review standards, detailing the solution to existing problems.

[37] See A. Pera and V. Auricchio, “Consumer Welfare, Standard of Proof and the Objectives of Competition Policy” [2005] 1 European Competition Journal 153. Note that the system of EU merger control is also designed to provide certainty for undertakings concerned in concentrations, and arts 2(2) and 2(3) EUMR confer individual rights on the undertakings concerned, see MyTravel v. Commission(T-212/-3) [2008] E.C.R. II-1967, [44-51] and [116].

[38] Xu Guangyao, "Study on the Classical Jurisprudence of the European Community Competition Law", Wuhan University Press, Third Edition, May 2016, p283.

3.1European Union Merger Control Substantive Criteria Reform

3.1.1 Treaty of Rome and Abuse of a Dominant Position Standard

The most important source of EU competition law is the Treaty of Rome. However, due to the establishment of a merger control system in the European Union, EU Member States are required to renounce some competence. Although the Treaty of Rome stipulated acts of restricting competition, abuse of market dominance position, state aids, monopoly of state-owned enterprises and so on, it did not mention enterprise merger control. Even in the 1997 Treaty of Amsterdam, there was no provision for merger control. This is due to the fact that, at first, merger were considered to be an effective way to achieve coordinated economic development, balanced expansion, and integration of internal resources within the European Community. The EU held an encouraging attitude and did not regard it as the object of regulation. However, in the practice, merger of undertaking may lead to significant restrictions to competition. To solve this problem, the Commission tried to adopt an expansive interpretation of Article 81 and Article 82 of the "Treaty of Rome" to fill the legislative gap.[39] The main content of Article 81 is the prohibition of restricting competition agreements, and the main content of Article 82 is to prohibit the abuse of market dominance. However, this measure has very obvious limitations. Article 81 and Article 82 of the Treaty of Rome only restricts enterprises that already have market dominance and cannot be applied in a situation in which enterprises did not previously have a dominant position, but has acquired a dominance position through merger. Also, neither Articles 81 nor 82 can handle the concentration which may result in oligopoly and coordinated effects. Therefore, the inherent logic of competition policy requires that a merger control system be established within the EU legal system. In a broader sense, this is a system that controls any transaction that may lead to an increase in the concentration of a specific market.

The formation of the "Abuse of Dominant position" standard originated from the famous case---Continental Can v. Commission in 1973. In this case, the Court ruled that companies with market dominance strengthened the position through merger, resulting in the elimination of the market competition that existed prior to the merger activity that constituted a violation of Article 82.[40] Thus, according to Article 82 of the Treaty of Rome, the standard of Abuse of a Dominant Position was established. That is, if an enterprise has already dominated the community market and market competition is restricted through merger, thus strengthening its dominant position, it should be subject to the jurisdiction and regulation of Article 82 of the Treaty.[41]

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[39] Case 6/72 Continental Can v. Commission [1973] ECR 215; C-333/94 Tetra Pak [1996] ECR 1-5951

[40] He Zhimai. Research on EU Enterprises' Legislation[M]. Beijing: China University of Political Science and Law Press, 2004, pp15-16

[41] HOWARD, C. MARSHALL. Antitrust and Trade Regulation: Selected Issues and Case Studies[M]. Englewood Cliffs, N. J.: Prentice-Hall. 2014. pp66-67.

For the era in which it was only possible to invoke the provisions of Article 81 and Article 82 of the Treaty of Rome to regulate merger, the establishment of the “Abuse of a Dominant Position” standard was a major achievement in the history of European legal development. This standard provides a clear legal basis for judging whether an merger activity is legal or not. However, there are still some deficiencies in this standard. First of all, the scope of application of this standard is limited. It is only applicable to companies that already have a dominant position to strengthen their dominance position through merger, and it is not applicable to companies that gain a dominant position through merger. Second, Article 82 does not stipulate the procedures for applying for merger. It is inconvenient for actual operation, which also greatly limits the application of this substantive standard. This shows that it is necessary for the European Union to formulate a merger control regulation. Subsequently, the European Commission proposed to the Council to formulate the law of merger control and issued Regulation 4064/89 in 1989.

3.1.2 No.4064/89 Regulation and Market Dominance Standards

The EU's formulation and adoption of the 1989 "Merger Regulations" are closely related to the establishment of a common market by the Commission. The Commission aims to eliminate EU's internal trade barriers and establish a package of legislation on the common market. This means that EU companies have to achieve the necessary scale through restructuring and achieve economies of scale to be able to compete in new conditions. In fact, the number of merger has increased since the early 1990s and has increased dramatically between 1994 and 2000. Therefore, on December 21, 1989, the Council of Europe adopted regulation No.4064/89 that specifically regulates business concentration.[42]

Regulation No.4064/89 provides important regulations for achieving fair competition among enterprises and improving the efficiency of administrative law enforcement. The concentration of companies operating in the different Member States within the EU should be assessed by the same substantive criteria and the same procedural law, regardless of which member country it is from. This is the so-called "fair treatment" concept. It is worth mentioning that the principle of a single law enforcement agency adopted in the "Merger Regulations" satisfies the need to improve the efficiency of administrative law enforcement. This is the concept of "one-stop shop." If the impact of merger involves multiple member states, companies no longer need to report to individual competition authorities and obtain approval one by one with different laws and administrative procedures in each country. According to the “Merger Regulations,” merger enterprises within the EU, only need to report once, the decision on this transaction is valid throughout the EU. This procedure has greatly improved the efficiency of corporate merger control.

[42] Council Regulation(EC)No.4046/89 of 21 December 1989 on the control of concentrations between undertakings, O.J. L395,30.12.89.

Regulation No.4064/89 establishes the Market Dominance Test through the provisions of Article 2(3) of its core provisions, that is, a concentration which creates or strengthens a dominant position as a result of which effective competition would be significantly impeded in the common market or a substantial part of it shall be declared incompatible with the common market.[43] This article determines the structural orientation of merger control. Compared with the "Abuse of Dominant Position" established under Article 82, Merger Regulation No. 4064/89 effectively overcomes the deficiencies of at least one of the companies participating in merger as a precondition. As long as merger reduce the number of competitors, change the market structure, enhance the market position of merger companies, or raise the barriers to market entry, they should be supervised or even prohibited.[44] Also, the Regulations also provide detailed stipulations on issues relating to the reporting and examination of enterprises' merger, jurisdiction, and other related procedural issues. In Article 2(1), it also lists the various factors to be taken into consideration when the Commission determines whether or not it has a dominant position, and provides clear criteria for the Commission to conduct merger control.

However, although the Merger Control Regulations were widely accepted in 1989, many deficiencies are also evident. First of all, the definition of dominance is very vague. Until the 2002 Proposed Amended and Re-stated EUMR, the meaning of "dominance" was clarified, namely: "For the purposes of this Regulation, one or more undertakings shall be deemed to hold a dominant position if, with or without coordinating, they hold the economic power to influence appreciably and sustainably the parameters of competition, in particular, prices, production, quality of out-put, distribution or innovation, or appreciably to foreclose competition".[45] Also, the lack of clear provisions in the oligopoly market has resulted in inadequate supervision. In addition, the Merger Regulation No. 4064/89 seldom touches on the economic analysis factor. Finally, the issue was whether "dominance" is to be construed in a structural context, such that (leaving coordinated effects to one side) it applies only to suppliers which are the largest in the market and hold significant market shares (normally in excess of 40%) or whether it is instead to be construed as synonymous with substantial market power, so that it applies whenever the merged group has the ability profitably to price significantly above the competitive level for a substantial period (or reduce service quality, innovation or variety) irrespective of its market share and the shares of its rivals.[46] Because if one only construes "Dominance" as market share to judge whether a merger should be prohibited or not, there are several scenarios which may

[43] Council Regulation (EEC) No 4064/89 of 21 December 1989 on the control of concentrations between undertakings, Article 2. (3)
[44] Kcnneth J. Hanmer. The Globalization of Law: International Merger Control and Competition Law in the United States, the European Union, Latin America and China [J]. Journal of Transnational Law and Policy Spring, 2002, (9): pp189-190.
[45] Proposed Amended and re-stated EUMR art 2(2) See also recitals 20 and 21, press release IP/02/1856 and the explanatory memorandum accompanying the Proposed Amended and Re-stated EUMR.
[46] N. Levy, "Dominance va. SLC: A Subtle Distinction", paper presented to the EU Merger Control Conference on November 8, 2002.

happen. For example, the merging parties have relative low combined market shares but are close competitors in the supply of differentiated products (i.e., products which are regarded by customers as different) and will be able profitably to raise prices following the transaction.[47] Because the "Market Dominance" standard cannot deal with the situation that the merged entity has market share in specific part of a market but not in another part of the market. And the whole market share cannot be treated as single company dominance. Philip Lowe, who is then Director General of DG Competition, focused on this particular issue when describing the rationale for the amendment to the substantive test, observing that: "There were particular concerns that the Regulation might not be able to tackle all situations of oligopoly in markets for differentiated products, when the merger would involve the elimination of a significant competitive constraint, but would neither result in the creation or strengthening of the paramount firm in the market nor a likelihood of coordination between the oligopolists".[48]

Although in the simple merger environment at that time, this did not pose any problem; but as the scale of merger continues to expand and constantly deepening, this deficiency has gradually become apparent. Besides, the "efficiency defense" [49] has been introduced in the Regulations, however, in practice, the Commission did not adopt efficiency defenses in specific cases to exempt companies that should have been prohibited. Therefore, the actual effect of No.4064/89 regulation is greatly reduced.

3.1.3 No.139/2004 Regulation and Significant Impediment to Effective Competition Standard

Since the implementation of the Merger Regulations No. 4064/89, the number of merger cases with EU dimension has been significantly increased, and the economic issues involved in merger control have become more complex. The economic analysis involved in the merger cases are more complicated than before. However, the existing merger regulations lacked explicit guidance on economic analysis and do not fully consider many widely accepted economic theories, such as the analysis of what factors should be considered when analyzing whether a merger is anti-competitive, the relationship between the various factors and status, applicable conditions for collective dominance.[50] In addition, the EU adopts an administrative merger control system. The Commission has the right to approve or prohibit merger. As a result, the Commission's

[47] Alistair Lindsay, Alison Berridge. The EU Merger Regulation: Substantive Issues. 4th edn, p44 2-010.
[48] "Current Issues of EU Competition law-the New Competition Enforcement Regime speech at Barcelona, October 2, 2003(available at: http://ec.europa.eu/competition/speeches/text/sp2003035 en.pdf)
[49] Efficiency defense refers to a situation in which mergers and acquisitions may impede competition. If an enterprise can prove that the efficiency brought about by concentration can offset or exceed the damage to competition or meet the public interest, the enterprises may request the anti-monopoly authority to make a decision not to prohibit the concentration.
[50] Facey. A.Brian&Huser, Henry. Convergence in International Merger Control: A Comparison of Horizontal Merger Guidelines in Canada. The European Union, and the United States [J]. Anti-Monopoly Fall, 2004, (2). pp 154-155.

discretion in the enforcement process is too strong, and some creative methods are continuously adopted to intervene in merger cases. During the eight years from 1991 to 1998, the Commission banned 10 cases of merger. From the three years from 1999 to 2001, the Commission banned 8 cases of merger, and there are also some cases that have been forced to give up merger in order to avoid being banned by the Commission.[51] In the Carrefour/Promodes case in 2000, the Commission first confirmed that the market share of the post-merger corporate was below 40% and constituted a single dominance position. Thus, Commission requires retailer Carrefour, which accounts for 20-30% of the French consumer market, to provide remedial measures to avoid its abuse of market position. In the case of Volvo/Scania, the Commission refused to accept the remedial measures submitted by the parties after the expiration of the three-month period stipulated in the Merger Control regulation, and prohibited the merger.[52] On the one hand, the Commission has simultaneously played the role of investigator, prosecutor and judge in the merger investigations. In particular, the same staff member analyzes the facts of the case, examine the evidence of the case, and determines that the merger should be permitted or not. This is not conducive to making a fair decision. On the other hand, due to the lack of clear standard of the dominant position, especially in the assessment of conglomerate merger, the Commission banned merger based on presumed anti-competitive behavior, which seriously damaged the stability and predictability of the law. Therefore, it is very important to have a guideline for the implementation of a clear dominant position standard. In view of this, the EU has amended the substantive standard clauses of Regulation 4064/89, and on November 27, 2003,[53] it passed the new EU Mergers Control Regulation, namely Regulation No. 139/2004. At the same time, the "Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings"[54] and “Best Practices on the Conduct of EC Merger Control” were promulgated.[55]

Article 2, paragraph 2, of the merger regulation No. 139/2004 states: “A concentration which would not significantly impede effective competition in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, shall be declared compatible with the common market.”[56] Article 2, paragraph 3 stipulates: “A concentration which would significantly impede effective competition, in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, shall be declared incompatible

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[51] Rein Weaseling. The Modernization of EC Antitrust Law [M] Oxford: Portland, or: Hart Pub, 2000: p156-158

[52] Facey. A.Brian & Huser, Henry. Convergence in International Merger Control: A Comparison of Horizontal Merger Guidelines in Canada. The European Union, and the United States [J]. Antitrust Fall, 2004, (2). pp185-187

[53] In December 2001, the Commission commenced a consultation exercise to determine whether the substantive test under the EUMR should be amended to a “substantial lessening of competition” standard and in the 2002 Proposed Amended and Re-stated EUMR.

[54] Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, Official Journal C 31,05.02.2004, pp5-18.

[55] DG Competition Best Practices on the conduct of EC merger control 2004. Official Journal C 31, 05. 02. 2004, pp5-18.

[56] Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation) Article 2(2).

with the common market."[57] In this way, the new substantive standards have been introduced through amendments, the "Significant Impediment to Effective Competition" standard. The "significant impediment" implies that a merger will be prohibited only if it materially reduces or lessens the extent of "competition" within the market.[58]

Compared with before the amendment, the new regulations incorporate all merger transactions that seriously hamper effective competition into the scope of regulation. The creation or strengthening of market dominance is just one form. This means that the Commission places more emphasis on the impact of mergers on competition than market dominance itself and the revised test standard broadens the jurisdiction of Commission. This has implications for horizontal mergers as the changes to the substantive test allow the commission to challenge certain transactions not raising coordinated effects concerns, even though the merged group's market share is below the level giving rise to a dominant position.[59] The SIEC effectively complements the gap that the MD standard does not apply to the oligopoly market and non-collusion-type merger. The regulations stipulate that if the market share of the companies participating in the merger does not exceed 25% in the EU and does not affect Article 81 or 82 of the Treaty of Rome, the merger may be allowed; if the combined market share of the company is between 25% and 40% (unless there are special circumstances), it is generally considered impossible to have a dominant market position. In practice, most of the market dominance has resulted from the combined market share of the companies between 40% and 75%. If it exceeds 75%, although it is not an absolute monopoly, it is generally considered to have created or strengthened market dominance. In addition to market share, the Commission also analyzes factors such as consumer demand, product supply, potential competitors, market entry barriers, and other factors.[60]

At the same time, in order to clarify the "SIEC" standard, to reduce the ambiguity in application, to improve the predictability of the implementation of the merger policy of the Commission, and to enhance the transparency of merger control, on the basis of summing up the past 14 years of law enforcement experience and the jurisprudence of the Court, the Commission has established the Horizontal Merger Guidelines in accordance with the authority granted under Article 2 of Regulation 139/2004. The guide provides detailed and orderly guidance on how the Commission evaluates market share and concentration, the anti-competitive effects that may arise from merger, purchasing power that counteracts anti-competitive effects, the possibility of access, timeliness and adequacy, efficiency defenses, and bankruptcy defenses. Among them, the most prominent is the creative introduction of non-coordinated effects theory and efficiency defense analysis. The 15 clauses elaborated on the factors and analysis

[57] Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation) Article 2(3).
[58] Alistair Lindsay, Alison Berridge. The EU Merger Regulation: Substantive Issues. 4th edn, p47 2-013.
[59] See K. Fountoukakos and S. Ryan, A New Substantive Test for EU Merger Control [2005] 26 E.C.L.R. 277 for details of the political discussions.
[60] Shi Jiansan, Qian Shiyu, Comparative Study of Corporate M&A Merger Control Law Press, 2010, p178.

methods that should be taken into account by the Commission in carrying out merger supervision. The guideline provides a clear guiding framework and specific standards for the Commission to conduct the anti-competitive analysis of merger, which will help companies avoid anti-trust issues when planning merger, and enable companies to know how to carry out merger legally.

The above-mentioned development history of the EU's merger substantive standards reflects the continuous development and changes of the EU's attitude towards merger. This development is a process of continuously incorporating more and more types of merger into the supervision process. From the merger development that initially included only the abuse of dominant position to the generation and enhancement of dominant position, to include non-coordination effects of the oligopolistic market. The scope of application of substantive standards is constantly expanding, but it is also a process of constant standardization. This evolutionary reflects the EU's increasing emphasis on the control of anti-competitive merger, preventing merger from causing any serious damage to the effects of competition and fulfilling the treaty's goal of the free competition in the free market economy.

3.2 Identification of Monopolistic Merger

To what extent a merger activity will be recognized by the anti-monopoly authority as monopolistic merger is the core content of the anti-monopoly law system. At present, most countries in the world have stipulated this issue in the anti-monopoly law, and the EU is no exception. When identifying monopolistic merger, various factors need to be considered. It is a very complicated process to make it easy to practice and comply with policy standards. The judgment of the General Court in EDP v Commission states that "it is for the Commission to demonstrate that a concentration cannot be declared compatible with the common market [now internal market]".[61] Also, in Airtours plc v Commission [62] the Court of Justice stated that before the final decision, the Commission needs to provide convincing evidence, which means the Commission should bear the burden of proof. In general, the recognition of a monopolistic merger includes the following aspects: the definition of the relevant market, the definition of market share and market concentration levels, and the analysis of defense factors.

3.2.1 Market definition.

The purpose of market definition is to identify in a systematic way those suppliers, if any, which provide, or could readily provide, genuine choices for customers of the merging parties and whose activities are directly relevant to a determination of whether

[61] Case (T-87/05) [2005] E.C.R. II-3745, at [61].
[62] Case (T-342/99) [2005] E.C.R. II-2585, at [61].

the merged group will enjoy market power. [63] "Relevant market" is a frequently used and very important basic concept in the field of anti-monopoly law. The so-called relevant market usually refers to the scope of competition in which the parties engage in business activities, and whether there is a competitive relationship with the goods or services operated by each party. The definition of the relevant market is the first step in the legal regulation of merger, and it is also the basis for the competition analysis of merger entities. In the anti-monopoly law, the definition of the relevant market focuses on the study of market control and analyzes the possible constraints on the subject of competition.[64]

Related markets include product market, geographic market, and temporal market. Although in some special cases, temporal may affect part of the market competition, as long as this effect is not very obvious, it is usually not necessary to specifically analyze the temporal market in the merger control. The Notice on Market Definition defines a relevant product market as comprising all those products and/or services which are regarded as interchangeable or substitutable by the consumer, because of the products' characteristics, their prices and their intended use.[65] The Commission has defined a relevant geographic market as follows: "The relevant geographic market comprises the area in which the undertakings concerned are involved in the supply and demand of products or services, in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighboring areas because the conditions of competition are appreciably different in those areas".[66] This definition has been endorsed by the General Court.[67] In defining the product market, the EU highlights the interchangeability and substitutable nature of products. This standard requires that products be examined when they investigate products that consumers believe are substitutes for suspected products. The needs of the cross-elasticity, physical performance, price, booking purposes, supply conversion and other factors. The definition of geographic market emphasizes that the conditions of competition among markets must be sufficiently homogeneous. It is usually necessary to take into account factors such as the territory, transportation conditions, nature of the industry, and sales channels of a country, which can be divided into national or regional areas. Sometimes it is through the law to directly define the geographical scope, and sometimes it is also necessary to analyze and define it in the law enforcement and judicial process.

The definition of the product market and the geographical market has a decisive influence on the results of merger. Defining the relevant product market and the relevant geographical market determines the competitiveness that the company faces. Therefore,

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[63] Airtours plc v Commission (t-342/99) [2002] E.C.R. i1-2585, at 20). See also, Nederlandse Vakbond Varkenshouders v Commission (T-151/05) [2009] E.C.R. II-1219, at [122]. The process of market definition may also determine whether a transaction is a horizontal merger or a vertical or conglomerate merger; this is important as vertical and conglomerate mergers are treated more benignly than horizontal mergers

[64] Wen XueGuo. Abuse and Regulation: An Anti-Monopoly Law Regulates the Abuse of the Market's Advantageous Position by Enterprises[M]. Beijing: Law Press, 2003:108

[65] The Notice on Market Definition, para 7.

[66] The Notice on Market Definition, para 7.

[67] Cableuropa SA and others v Commission (T-346/02 and T-347/02) [2003] E.C.R. II-4251, at [115]

assessing the possible impact of a concentration on competitive conditions depends to a large extent on the definition of the relevant market. If the market is defined to be too small, the market share owned by parties involved in merger is relatively high, and the likelihood of approval of merger is greatly reduced; on the contrary, the likelihood of successful merger is relatively high. It can be said that all calculations, determinations, and judgments of the competitive impact of merger usually depend on the size and structure of the relevant market. In the community system, market share and supply concentration are the starting points for judging whether a market has a problem with competition, but they are not the only factor. Also, the merging party's competitors and customers should also be considered together. Therefore, the correct and reasonable definition of the relevant market scope involved in the merger of both parties is of great significance for the accurate analysis of the competitive effect of the merger.

3.2.1.1 Product market definition

There are two ways to define the product market in the anti-monopoly law: First, the tradition product function definition method; second, SSNIP definition (small but significant and non-transitory in price). Whether in the EU's competition law or the early stages of the development of anti-monopoly laws in the United States, the market definition is based on the analysis of the product's physical and functional uses. However, with the increasing number of economic factors involved in merger activities, early methods are unable to meet practical needs. Therefore, the United States took the lead in adopting the SSNIP definition method based on the economic analysis in 1982. In 1997, the European Union also explicitly renounced the traditional product function definition method in its "The Notice on Market Definition" and adopted the SSNIP definition method.[68]

The product function definition method began in the famous United States v. E.I. Du Pont de Nemours & Co. case in 1956. Through the verdict of the case, the principle of "reasonable exchange" was established. That is, when the two products are reasonably interchangeable from the consumer's point of view, they can be considered to belong to the same market. However, the definition of product function definition has a great deficiency in the market definition, that is, it has a strong subjective arbitrariness. As more and more products have ever-increasing physical characteristics and expected functions, the difficulty of judging whether two products belong to a reasonable alternative is also increasing. The results of judgments made by different appraisers may be different or even opposite, which greatly increases the inaccuracy of the defined results. Therefore, in order to overcome this subjectivity of the product function definition method, the United States proposed the SSNIP definition method based on the economic analysis in the 1982 "Horizontal Merger Guidelines". In EUMR, the SSNIP is:

(a) The issue in considering a candidate market is whether a hypothetical monopolist

[68] Mario Monti, then the Commissioner for Competition Policy, "Market Definition as a cornerstone of EU Competition Policy", speech of October 5, 2001.

would find it profitable[69] to increase the prevailing[70] market price of the product by 5-10 percent. [71] In shorthand, an anti-monopoly market is something worth monopolizing.[72]

(b) The test is applied iteratively. The first iteration is applied to a narrow candidate market and, if a hypothetical monopolist would not find such a price increase profitable, products are added to the candidate market and the test is repeated[73] until a price increase of 5 to 10 percent would be profitable.[74]

(c) The profitability of the increase in price will depend on whether the increased revenues on sales which are retained by the hypothetical monopolist but are made at the higher price, together with any cost savings arising from the reduction in output associated with falling demand, are greater than the revenues lost as a result of falling demand.[75]

In fact, if the relevant market is seen as a circle, the commodities in the circle are

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[69] More accurately, the issue is whether the hypothetical monopolist's profits would increase as a result of the increase in price. For discussion of the importance of focusing on the effect of the hypothetical price increase on profitability, see COMP/M.2947 Verbund/ Energie Allianz (L92/91, at [75]. G. Werden, "Beyond Critical Loss: Tailored Application of the Hypothetical Monopolist Test"[2005] Comp Law 69 argues that even if a price increase of 5-10% would be profitable, the relevant market ought to be defined more broadly if the profit maximizing price increase is less than 5%, because competition policy should only properly be concerned with rational exercises of market power

[70] The Notice on Market Definition, para. 19

[71] A hypothetical monopolist may find it profitable to increase prices by more than 5-10% but not by 5-10%. The Notice on Market Definition makes no reference, at para. 17, to taking account of increases in price in excess of 10% (in contrast to the position under the US Department of Justice and Federal Trade Commission Horizontal Merger Guidelines, August 2010 (available at: http://www.fic.gov/os/2010/08/100879hmg. pd please check the link) which refer to price increases" at least "as great as the significance threshold(p9): see J. Langenfield and W. Li Critical Loss Analysis in Evaluating Mergers"[2001] The Antitrust Bulletin 299, 323, see also the UK OFTS Guidelines on Market Definition, December 2004(available at: http: www oft. gov. uk /shared ofi/business_leaflets/ca8_guideline/oft403. d), fn.12). However, the Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services [2002] OJ C165/3, state, [40]: "While the significance of a price increase will depend on each individual case, in practice, NRAS [National Regulatory Authorities] should normally consider customers'(consumers or undertakings) reactions to a permanent increase in price of 5 to 10%". This implies that price increases of different magnitudes may be relevant in certain cases. For discussion of the rationale for selecting this threshold, see G. Niels, H Jenkins and J. Kavanagh, Economics for Competition Lawyers, 2011, pp43-44

[72] The prices and terms of sale of all other products are held constant in applying the SSNIP test.

[73] For discussion of whether, when a candidate market comprising product A is widened to cover two products, A and B, it is necessary for the hypothetical monopolist to be able profitably to increase the price of one of the merging parties' products in A, A alone, or both A and B, see the Competition Bureau of Canadas Merger Enforcement Guidelines, October 2011 (available at: http://www.competitionbureaugcca/eic/site/cb-bcnsf/wapi/cb-meg-2011 e pdf/SF/LE/cb-meg-2011-epdf), para.4. 4; the UK OFT Market Definition Guidelines, 2004 3. pd) (available at: http: /www. ft. gov. k/share daft /business leaflets/ca8 guidelines/of 140 paras. 2. 12; G. Niels, " The SSNIP Test: Some Common Misconceptions" [2004] Comp. Law 267, 271-272: W K. Tom, Market Definition Under the Merger Guidelines: Some Modest Proposals"(available at: http: //www usdoj go atr/public workshops/docs/202597hmmn4) s I(B); J. Church and R. Ware, Industrial Organization a Strategic Approach (Boston McGraw-Hill, 2000), p.603; and G. Niels, H. Jenkins and J. Kavanagh, Economics for Competition Lawyers, 2011, pp54-55.

[74] It is therefore important to identify the criteria used to identify: the product or group of products to which the first iteration is applied; the products to be added in subsequent iterations: and the order in which such products are introduced into the iterative process. The Notice on Market Definition, paras 16 and 17, indicates that the starting point is the type of products sold by the undertakings involved. Whilst the Notice on Market Definition provides no guidance on the choice of products to be added to the iterative process and the order in which such additions should occur, in principle the next-best substitute should be added at each iteration: see G J. Werden, Demand Elasticities in Antitrust Analysis"(1998)66 Antitrust Law Journal 363, 402 406 and G. Niels, H. Jenkins and J. Kavanagh, Economics for Competition Lawyers, 2011, pp 51-54

[75] Contrast COMP/M.3779 Pernod Ricard/ Allied Domecq, at [12]

substitutes. Assuming that the monopolist raises prices and consumers easily shift to other alternatives, the company's sales volume declines and it is unprofitable. Out-of-circle products are products that do not have alternative relationships. Assuming that monopolists increase prices, consumers have no choice but to continue to purchase the products of the company, so that the company's price increase behavior is profitable. In a sense, we can think of SSNIP as a kind of ideological experimentation. At each stage of the experiment, we will incorporate what is considered to be the "very close substitutes" into the product market. A combination of the product is formed, and this combination is the market to be defined by the competition analysis.

Different from the product function definition method, the process of defining the relevant market by the SSNIP test is a strict economic analysis argumentation process, which overcomes the subjective arbitrariness of the product function definition method. However, there are also problems with SSNIP test. For example, the "Cellophane Fallacy." In merger control, the SSNIP test is applied with reference to the pre-merger market price.[76] The use of the pre-merger market price may result in an incorrect analysis because a monopolist---or a group of firms tacitly or expressly operating as if they were a monopolist---will price at a level at which any further price increases would not be profitable.[77] If the original commodity producer itself is a monopolist, the unprofitability of the company after the price increase does not necessarily mean that these substitute products constitute competitive pressure on the original commodity. Therefore, it is not appropriate to include these substitutes in the relevant market. This would exaggerate the scope of the relevant market and underestimate the market power of the monopoly. In 1956, the United States v. EI du Pont de Nemours & Co case,[78]the US government claimed that the cellophane produced by DuPont occupied 75% of the US cellophane packaging material market and relied on this dominant position to monopolize the interstate trade and violated Article 2 of the Sherman Act. DuPont argued that cellophane is a kind of "flexible packaging material". DuPont's cellophane only accounts for 17.9% of all soft packaging materials market, so it does not have a dominant market position. The court held that the difference in physical properties between soft packaging materials does not mean that such packaging materials should not be included in the same relevant market. A large number of flexible packaging materials such as aluminum foil, paraffin paper, and cellophane have reasonable replicability in use. As long as the price of cellophane is slightly reduced, there will be a considerable number of customers of other flexible packaging materials turning to the cellophane market, so the relevant product market in this case is a broad market including a variety of flexible packaging materials. However, the judgment of the U.S. Supreme Court was widely criticized because the relevant market definition was actually wrong. DuPont monopolizes the cellophane market and has long enjoyed monopolistic profits. In the current price rise, the product's substitutability is very strong. The high elasticity of demand for cellophane is not due to the substitutability of

[76] The Notice on Market Definition states, at para.19.
[77] Alistair Lindsay, Alison Berridge. The EU Merger Regulation: Substantive Issues. 4th edn, p110 3-009.
[78] the United States v. EI du Pont de Nemours & Co, 351 US 377, 76 S.Ct. 994, 100 L.Ed. 1264 (1956). See generally, R.A. Posner, Antitrust Law, 2nd edn (Chicago: The University of Chicago Press, 2001), p151

the product, but to the monopoly price that has already been implemented. Therefore, this also shows that DuPont is abusing its dominant market position rather than not having a dominant market position. In addition to the "cellophane fallacy", there may be other situations in which the SSNIP test is not directly applicable.[79]
(a) in bidding markets where suppliers tender for bespoke pieces of work it may not be possible to identify a market price to which a hypothetical price increase can be added;[80]
(b) the SSNIP test cannot be applied when the supplier is subject to price regulation;[81]
(c) the SSNIP test is also difficult to apply when there is no current trade. and;[82]
(d) many media products, such as television channels and newspapers, and some software are supplied free of charge, making it difficult to apply the SSNIP test o to determine whether the free products compete with paid for products.[83]

Theoretically, the SSNIP test is an advantageous method of defining the relevant market, but in practice, it also faces difficulties in data collection and information acquisition. Therefore, it is necessary to apply the SSNIP test by estimating other relevant data. Critical loss analysis is a good alternative to SSNIP because it is an economic model equivalent to SSNIP analysis and it is easy to implement. Harris and Simons proposed a simple and easy method which is critical loss analysis in 1989. Critical loss analysis is the assumption that the monopolist can bear the greatest sales loss in order to make the price increase behavior profitable. The actual sales loss due to price increase will be compared with the critical loss to determine whether a substitute product belongs to the relevant market. If it is assumed that the monopolist's sales loss is less than the critical loss, then the price increase is profitable, and the relevant market defined here is appropriate, and conversely, market definition is too narrow, and it needs to be tested again by adding the closest substitute. The method data is easy to obtain, and the calculation is simpler.

3.1.1.2 Geographic market

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[79] There are suggestions that the SSNIP test may not be appropriate in markets with high switching costs; see J. Hark rider, Operationalizing the Hypothetical Monopolist Test (available at: http://www usdoj.gov/atr/public/workshop/docs/202598pd), p11. It has also been argued that the use of the SSNIP test is less appropriate in high innovation markets when customers may focus on product performance to a greater extent than price (see "Merger control in Emerging High Innovation Markets"
OECD, DAFFE/COMP (2002)20, p8).

[80] However, it may be possible to assess the extent to which customers are sensitive to small changes in relative prices

[81] See the Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services [2002] OJ C165/3, para. 42 and the US Department of Justice and Federal Trade Commission Horizontal Merger Guidelines, August 2010(http: //www fic.gov/os/ 2010/08/100819hmg.pdf), p9

[82] See "Market Definition in the Media sector-economic Issues", Report by Europe Economics for the European Commission, DG Competition, November2002(available at: http:
//ec.europa.eu/competition/sectors/media/documents/European economics. pdf), paras 2.5.21-2.5.26.

[83] For discussion of the scope to apply the hypothetical monopolist test to changes in relative quality in such cases, see "Market Definition in the Media sector-economic Issues", Report Europe Economics for the European Commission, DG Competition. November 2002 (available at: http: //ec.Europa.eu/competition/sectors/media/ documents/European economics.pdf), paras 2. 4.21 and 3.4.81-3.4.85. Cf. IV/JV.19 Bertelsmann/Viag/ Game Channel, at [7]; COMP/M 5529 Oracle/Sun Microsystems (appeal pending in Monty Program w European Commission(t-292/10), at (86-109) (discussed in C.Buhr, S. Crome, A Libbert, V. Pozzato Involving open source software", (2010)Competition Policy Newsletter, 2, 20); COMP/M5984 Intel/ Mcafee, at [79]; and COMP/M6281 Microsoft/Skype (on appeal in Cisco Systems v. Commission(t-79/12)), at [78-81]

In the relevant geographical markets, the competitive environment of all companies is very similar. The SSNIP test is applied to the geographic market definition in the same way as product market definition.[84] However, defining geographical markets has its own specific methods and considerations, which are briefly introduced here.

The traditional market-defining method on the one hand considers that the goods in the relevant market can be substituted for each other. The starting point is that "the market is a place for price formation", and it is believed that the price (or declining trend of price) tends to be consistent within the same related market.[85] But Elainga and Hogarty put forward different opinions. They believe that when defining geographical markets, product prices are not an ideal data.[86] Because most products are inhomogeneous, even if there is a close substitute relationship, different products will necessarily have different prices because of their respective characteristics. In the case where manufacturers can implement price discrimination, even if the two regions belong to the same relevant market, the prices of the products will also be different. In addition, as trade and investment become more international today, when dealing with domestic anti-monopoly cases, it is often necessary to consider the needs of international suppliers or foreign markets. Especially when it comes to exchange rate issues or commercial services such as commercial banks, it is difficult to directly compare product prices in different regions. Not only that, this method considers both supply and demand factors. According to Elainga and Hogarty, the simplest criterion for dividing geographical markets is the amount of trade with other regions.[87] They think the problems expressed by the price data can also be expressed in the transport data. Furthermore, transport data is more useful when defining relevant geographic markets. If two regions constitute relevant markets, there will be large-scale product transportation within this two region; and if there is very little product transportation between two regions, it means that they are independent or not the relevant market. Therefore, Elainga and Hogarty proposed to use the product transportation data to replace the price as the best variable to reflect the competitive situation. They proposed a transport data validation method based on "little in from outside" (LIFO) and "little out from inside" (LOFI).[88] They believe that the geographic scope of the two indicators with a value of at least 0.9 is a strictly defined market, while the geographic scope where the two indicators have a value of at least 0.75 is a broadly defined market. The EH assay requires only regional product shipment data to be calculated. It is simple and convenient, but it also has major problems. For example, large-scale trade flows may also exist between two unrelated markets. Shrieves uses transportation data to compare the "similarity" and "importance" of relevant geographic markets and he used it as a

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[84] The SSNIP test is widely used internationally: see fn.31 to para.3-006. The US Horizontal Merger Guidelines of the National Association of Attorneys General, 1993.

[85] G. J. Stigler and R. A. Sherwin. The Extent of the Market[J], Journal of Law and Economics, Vol 28, No. 3.

[86] K. G. Elzinga and T. F. Hogarty. The Problem of Geographic Market Delineation in Anti-Merger Suits [J] Antitrust Bulletin 18(1973): pp45-81

[87] K. G. Elzinga and T. F. Hogarty. The Problem of Geographic Market Delineation in Anti-Merger Suits [J] Antitrust Bulletin 18(1973): p61

[88] K. G. Elzinga and T. F. Hogarty. The Problem of Geographic Market Delineation in Anti-Merger Suits [J] Antitrust Bulletin 18(1973): pp45-81

supplement to the price method when analyzing the supply pattern of bituminous coal.[89] Because the data of regional product transportation is more easily obtained than the price data, and this calculation method is also relatively simple, the inspection of transportation data has been widely used in the definition of anti-monopoly geographical market. However, this method is also flawed. First, the use of transportation data to define relevant geographic markets ignores the potential for competitive and price discrimination. If the products are homogenous, and they are recognized by consumers, and the cost of transportation is small and non-zero, then the threat of commodity input is enough to keep the price at a low level. Since this threat affects the price of products in the region, the sales (or production capacity) of external potential competitors should be included in the relevant geographic market. [90] Although there is no real commodity input, this does not mean that this place is isolated. Stigler and Sherwin also pointed out that even if there is no actual trade and transportation, the commodity prices in the two regions are entirely likely to be consistent due to the role of arbitrage activities, information, and competition.[91] On the contrary, there may be a large amount of trade flow between even two markets that are not related, because manufacturers can identify and use the differences in the elasticities of demand of the two regions to implement price discrimination or dumping and benefit from it. Second, when there is merger, the definition of geographical markets will face new problems. Landes and Posner believe that if consumers think that domestic and foreign goods are substitutable, and domestic markets have a large amount of sales in recent years, then the production capacity of foreign manufacturers should be included in the domestic market. [92]At the same time, the impact of potential imports should also be considered. For the method of using transportation data to define the relevant geographic market, Fishwick made the premise that there is no legal trade barrier. [93]When considering international competition (for example, within the scope of the European Community), factors such as the country's tariff and non-tariff trade barrier tax system and the exchange rate change also affect international trade and the definition of geographical markets. [94] With the improvement of the transportation conditions and the reduction of legal restrictions in various countries, the relevant geographical market is likely to exceed the scope of a country and even form a global market. However, for a country’s judiciary, its authority is limited when analyzing relevant geographic markets. Generally, only companies that are within their jurisdiction are required to provide the necessary information that can determine the relevant geographic market, and have no right to require foreign companies to provide this kind of information. Therefore, in determining the relevant geographic markets

[89] R. E. Shrieves Geographic Market Areas and Market Structure in the Bituminous Coal Industry J]. Antitrust Bulletin23(1978):pp589-625.
[90] G J. Werden. Use and Misuse of Shipments in Defining Geographic Market [J]. Antitrust Bulletin 26, Winter 1981
[91] G. J. Stigler. The Organization of Industry[M]. Chicago: The University of Chicago Press, 1983
[92] W M. LANDES, R A POSNER Market Power in Antitrust Cases Jl. Harvard Law Review, Vol. 94. No. 5 (Mar.,1981):pp937-996.
[93] Cai Junfeng, Defining Standards for Relevant Markets in Antitrust Law. Journal of Nanjing Institute of Population Management, 2005(2): p21.
[94] R. PITOFSKY. New Definitions of Relevant Market and the Assault on Antitrust [J]. Columbia Law Review, Vol.90, No7, (Nov,1990)

involved with merged entities, these authorities will use their jurisdiction as the relevant geographic market. The scope of the relevant geographic market determined by authorities is much smaller than that of the actual relevant geographic market, and this will seriously affect the final judgment result.[95] This method of defining has had problems in anti-monopoly practices. In the case of the Italian Flat Glass, the European Court of Justice used the transport data inspection standard and found that 80% of Italian flat glass was provided by domestic producers, and thus determined that Italy constituted a relevant market.[96] Finally, it made a decision against the manufacturer. Later studies found that due to potential competitors from other countries in the European Union, Turkey, and Eastern Europe, Italy's flat glass prices have been at competitive prices, and do not have monopoly power that undermines social welfare.

To sum up, it is not enough to define geographic markets based solely on transportation data. When defining the market, other factors need to be examined. Therefore, the effective use of transportation data to define the market still requires further research and exploration.

Under the EU merger control, the definition of the relevant market becomes more and more complex. The overall tendency is that Commission is gradually adjusted from the "demonstration" approach to the practice of evaluating evidence. The more evidence that can be used, the more diversified the source of the evidence, and the more convincing the case's outcome. In addition to the relevant market definitions, market shares and concentration levels are also important criteria for determining whether a merger violates anti-monopoly laws.

3.2.2 Market Share and Market Concentration Levels

After completing the relevant market definition, the Commission will usually assess the company's market share and market concentration levels. To assess the market structure and merger control to determine the impact of merger on the market competition. The Commission relies on data about market shares and concentration levels[97] as "useful first indications" about the market structure and the competitive importance of the merging parties and their competitors.[98] Market concentration refers to the extent to which production is controlled by a few large companies in a particular market or industry. This ratio can directly reflect the position of an enterprise in the relevant market, and it is less affected by the degree of economic development, inflation, and currency exchange rate of a country in different periods. Market share information is relevant to the market positons of the merging parties and their competitors, while

[95] A C. HRUSKA. A Broad Market Approach to Antitrust Product Market Definition in Innovative Industries [J] The Yale Law Journal, Vol.102:pp305-331
[96] See Judgment of the Court of First Instance (First Chamber) of 10 March 1992. Società Italiana Vetro SpA, Fabbrica Pisana SpA and PPG Vernante Pennitalia SpA v. Commission of the European Communities.
[97] See generally, ABA Section pf Antitrust Law, Market Power Handbook (Chicago: ABA Publishing,2005), Ch.V.
[98] Notice on Horizontal Mergers, para.14

concentration data provide information about the overall structure of the market and in particular the extent to which a few large firms control supplies or purchases.[99]

Many countries have clearly defined the rules for market concentration in their anti-monopoly laws. Under normal circumstances, the company has the larger market shares and the higher degree of market concentration, it is more likely that merger will generate or strengthen the market dominance of the company, thus limiting competition. Of course, this is not absolute. Market share and market concentration levels are just two of the most important factors that influence market forces. To judge the market power of enterprises, anti-competitive effects and compensation factors should also be considered. Nevertheless, market share and market concentration levels are still important factors in analyzing the impact of merger on the competition.

3.2.2.1. Market share assessment

Market share refers to the proportion of sales that an enterprise has in a certain period of time to total sales of all products of the same type, that is, the market share of the enterprise is equal to the total sales (all undertakings) in the market divided by the sales of the company. [100] Market share reflects the company's economic power and competitiveness. In general, the greater the market share of a company, the greater the possibility of affecting market prices, and the greater the possibility of using dominant positions to exclude and restrict competition. From a merger control perspective, the objective in measuring the merging parties' market shares is to provide the best proxy of the ability of the merged group profitably to raise prices above the pre-merger prevailing level or to reduce the quality of goods or services, the variety or choice available for customers or the rate of innovation.[101]As a result, many countries use market share measurement as the first step in analyzing the market power of the company. I will describe some measures which used by the Commission to calculate market shares:

Firstly, value data. Use of value data is particularly appropriate in cases involving differentiated products[102] as market share information calculated by value adjusts for these differences and ascribes greater significance to sales of more expensive goods.[103] When calculating the market share of differentiate products, the volume data will be inaccurate due to the different functions and shapes of the products. In Nestle/Perrier the Commission stated, in relation to the French water market: "The market shares in value terms better reflect the real market strength in this market than the market shares in volume terms because the French water market is composed of two categories of products which are very different in terms of price, i.e. the nationally distributed

[99] See generally, G.J. Werden, "Assigning Market Shares" (2002) 70 The Antitrust Law Journal 67.

[100] Kiss. N. Hilton, Antitrust Law and Economics, 5 edn, 2009, p185.

[101] The New Zealand Merger Guidelines, 2003, para 5.2.

[102] Contrast P.E. Areeda, H. Hovenkamp and J.L. Solow, Antitrust Law, 3rd edn (New York: Aspen Law&Business,2007), Vol IIB, para 535a.

[103] See the Notice on Market Definition, para.55. See also, Endemol Entertainment Holding BV v Commission (T-221/95) [1999] E.C.R. II-1299.

mineral waters and the local waters, which are mainly spring waters".[104] It is worth mentioning that if the difference in products is very large, market share data does not reflect the competition among products. Because the substitution will affect the determination of market share as a key reason, thus affecting the determination of market power.

Secondly, volume data. Market shares in cases of homogeneous products are commonly measured using volume data.[105] Volume data is a very important date when the Commission calculate market shares of a company. Almost all cases will be required to submit volume data.

Thirdly, capacity data. Measurement of market shares using capacity data[106] is most relevant in cases of homogenous products when customers can easily switch supplier, but suppliers face capacity constraints.[107] In many cases, capacity data is more indicative of the market power of a company than volume and value data. In WorldCom/MCI case, the Commission, in considering the market for top-level or "universal" internet connectivity, stated that the "size of installed capacity links… might well provide an indication of the potential of a network in terms of performance, and also of size, on the assumption that capacity would not be purchased and installed unless there was some reasonable expectation of using it".[108] The measurement of market share is simple and easy to operate, but it cannot fully reflect the market power of the company and its impact on competition. Analysis of corporate market power not only needs to focus on corporate market share but also consider other factors from demand substitution and supply substitution.

3.2.2.2 Market concentration levels analysis.

Market concentration levels refer to the extent to which a few numbers of companies concentrate production in their own hands in a particular market or industry. Concentration data seeks to convey information about the degree to which production (or procurement) is concentrated in the hands of a few large firms.[109] It is an inspection of the degree of market structure concentration of the entire industry and an important quantitative measure of the market power of the enterprise. Therefore, it is very important to measure market concentration to analyze the market structure and the influence of merger on the competition. There are many ways to measure market concentration, but the most important measures are the concentration ratio (CRn index) and Herfindahl-Hirschman index (HHI index).

CRn is the sum of the market share of the largest "n" companies in the industry. General

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[104] IV/M.190[1992] OJ L356/1, at [40]

[105] See, e.g. IV/M,157 Air france/Sabena (shares on airline routes calculated by numbers of passengers; at [35])

[106] See the detailed discussion in P.E. Areeda, H. Hovenkamp and J.L. Solow, Antitrust Law, 3rd edn, 2007, Vol. IIB, para.535c.

[107] ABA section of Antitrust Law, Market power Handbook, 2005, states, at p.75

[108] IV/M.1069[1999] OJ L116/1, at [98]

[109] See R. Clarke, Industrial Economics (Oxford: Blackwell, 1985), pp.9-19. P.E. Areeda, H. Hovenkamp and J.L. Solow, Antitrust Law, 3rd edn, 2007, Vol. IV

"n" is 4 or 8 to indicate that choosing the market share of 4 or 8 largest companies represents the market concentration of the entire industry, e.g., CR4 measures the total share held by the largest four companies in the market.[110]The CRn index reflects the market structure and competition conditions. When the CRn approaches 1, the sales of the largest "n" companies approach the sales of the entire industry, and the market is closer to the monopoly structure; when CRn approaches 0, at that time, it was indicated that the sales of the largest n companies were not high, and there were a large number of companies in the market that competed with each other and were closer to the structure of a completely competitive market. CRn index for measuring market concentration does not require high accuracy and diversity of data. It is simple and easy, but it also has its own inherent limitations. First, when using the CRn index, the number of "n" is subjective, but the number of n directly affects the final results. They are arbitrary in the sense that the choice of the number of companies included can significantly affect the ratio.[111] Second, the CRn index does not fully reflect the market structure because it only examines large companies in the market while ignoring other companies. They provide no information about the ratio or about companies excluded from the ratio.[112] In addition, the specific size of the largest n companies in the market cannot be differentiated. The same CRn index may reflect various market conditions.

These problems were resolved after the introduction of the HHI index. The European Commission set the Herfindahl-Hirschman Index (HHI) as a tool for measuring market concentration in the Horizontal Merger Guidelines issued on February 5, 2004. The HHI is calculated by summing the squares of the market shares (measured in percentages) held by each of the participants in the market, e.g. if the market comprises five suppliers, A, B, C, D, and E with respectively 30, 20, 20, 18 and 12 percent of the market and suppliers A and B propose to merge, the pre-merger HHI is 2,168 and the post-merger HHI is 3,368, an increment("delta") of 1200.[113] HHI values range from 0 to 1. When HHI is smaller, it tends to be closer to 0. This indicates that the number of companies is large but the scale of companies is small, and they tend to be completely competitive; on the contrary, if the HHI value is larger, closer to 1, which means the market concentration is high. The output is concentrated in a small number of companies and it is closer to the monopoly market. In practice, in order to facilitate the consideration of subtle changes in HHI values, market share figures are usually expanded by 100 times, that is, HHI values range from 0 to 10,000. According to the HHI index, the market can be divided into three types: one is a decentralized market with a HHI index of less than 1,000 points; two is a moderately concentrated market with a HHI index between 1000 points and 1800 points; and three, a HHI index exceeds 1,800 which is the highly concentrated market.[114] When the "HHI" of the market is lower than 1000, the EU adopts a non-intervention policy on merger; when the "HHI"

[110] See F.M. Scherer and D.R. Ross, Industrial Market Structure and Economic Performance, 3rd edn, 1990, p423, fn.45.
[111] Alistair Lindsay, Alison Berridge. The EU Merger Regulation: Substantive Issues. 4th edn, p244 4-038.
[112] See F.M. Scherer and D.R. Ross, Industrial Market Structure and Economic Performance, 3rd edn,1990, p423, fn.45
[113] See the Notice on Horizontal Mergers, para. 16.
[114] Bain, Joe S, Barriers to New Competition, Cambridge, MA: Harvard University Press, 1956. p83.

is between 1000 and 2000, the EU takes the increase of 250 points as the demarcation line, and considers that the acquisitions with an increase below 250 are not with anti-competitive effects, merger higher than 250 has anti-competitive effects; when "HHI" is higher than 2,000, the EU considers that the increase below 150 is a security acquisition.[115] Those over 150 will consider whether to intervene in combination with whether the parties to the merger include potential entrants, innovators, records of engaging in coordinated effects, absolute holdings, etc. The HHI index is a comprehensive indicator that reflects the market share and the number of competitors in the market. Because it uses the square calculation method, the larger the market share of the company, the larger the HHI index, and the higher the corresponding market concentration. Therefore, the HHI index can accurately reflect the actual situation of the post-merger company's impact on competition. The Commission uses the HHI as part of its analysis and form CO now requires notifying parties to identify pre- and post-merger HHIs and the delta for affected markets.[116]

Compared with CRn index, HHI index can reflect market concentration more scientifically and completely. On the one hand, the HHI index not only considers the market conditions of the largest companies in the industry but also reflects the market structure outside the large enterprises. On the other hand, because the HHI index gives greater weight to large companies and makes larger companies account for a larger proportion of HHI, it is more important to measure the market share of large companies than the market share of small businesses. People pay more attention to large enterprises, and less attention is paid to merger that are slightly more moderate. In practice, many countries have used HHI to establish a "safe harbor" system that facilitates enforcement of the anti-monopoly law. Of course, the HHI index is not perfect for measuring market power. For example, the HHI index does not reflect the opening of the market. Enterprises with high market share may not be able to exercise market forces when market access is free; having high market share may not be based on market forces but based on corporate efficiency; the HHI index may underestimate the market control power of different product companies, because differences in products are conducive to corporate artificial manufacturing barriers to entry.

Given the limitations of the HHI index in the differential product market, some scholars have developed a new tool for measuring market concentration under the condition of differential products, namely, the market concentration index (MCI). According to this theory, the measurement of the market concentration of differential products generally needs to be carried out in three steps: The first is to define the relevant market. On this basis, subdivide it and find the submarket. Then use the square of the market share of this enterprise in the submarket to estimate the concentration of each submarket. Finally, MCI can be calculated by taking the weighted average of the submarket concentration index (the weight is determined by the size of each submarket). MCI provided a new

[115] Wang Chuanhui: "Analysis of Economics of Antitrust", Beijing: Renmin University of China Press, 2004, p 103.
[116] Form CO, para.7.3.

tool for measuring market concentration under different product conditions, which made up for the shortcomings of HHI, but how much it can play in practice remains to be further tested.

In judging whether an merger is "substantially reducing competition (SLC)", the United States uses the same market concentration as the EU, and in the 1982 merger Guide, it proposed HHI index standards to test the market concentration. The United States determines whether an merger is illegal based on the size of the HHI index after the merger and the increase in the HHI index caused by the merger. The Ministry of Justice does not generally interfere with merger in decentralized markets. For medium-term concentration markets, merger with an increase in the HHI index after the merger of more than 100 points are considered to have a significant impact on competition and should be prohibited by the Ministry of Justice; For highly concentrated markets, merger where the increase in the HHI index does not exceed 50 points after the merger can generally be passed. If the increase in the HHI index after the merger exceeds 50 points, the Ministry of Justice may consider that the merger or acquisition will create or strengthen market forces, thereby prohibiting the acquisition.[117]

It can be seen from this that Europe and the United States insist on adopting a non-intervention policy for merger s in decentralized markets. However, in the medium and highly concentrated market indicators, the EU defined the merger with anti-competitive effects by 250 points and 150 points respectively. In the United States, the increase is 100 points and 50 points. In contrast, the EU's regulatory standards should be relatively relaxed. This will be conducive to merger, integration of internal resources also played a positive role in accelerating the EU economic integration process.

3.2.3 Compensation Factors in Merger Control Regulation

In analyzing the treatment of substantive issues under the EU Merger Regulation, it will be necessary to return time and again to the objective underlying the Regulation.[118] In addition to substantive standards and market definitions, compensation factors are also an important factor that affects whether merger of companies comply with anti-monopoly laws. Merger by enterprises may have anti-competitive effects, but there may also be some compensation factors such as market entry, efficiency, buyer power, and bankruptcies that offset this anti-competitive effect.

(a)Market entry. Market entry is an important factor in offsetting the anti-competitive effects of merger, and it plays an important role in merger control. When the market is very easy to enter, even if merger companies have a high market share, they will be under pressure from other potential competitors to enter and cannot monopolize the

[117] Kenneth J. Hammer. The Globalization of Law: International Merger Control and Competition Law in the United States, the European Union, Latin America and China [J]. Journal of Transnational Law and Policy Spring, 2002, (9): pp189-190, pp187-189

[118] Alistair Lindsay, Alison Berridge. The EU Merger Regulation: Substantive Issues. 4th edn, p2.

market; on the contrary, when there are higher barriers to market entry, merger companies are very likely to use market power to undermine market competition.[119] The Harvard school believes that barriers to entry can be assessed based on the advantages of companies within the industry to potential entrants. Barriers to entry are all factors that are beneficial to existing undertakings and unfavorable to potential entrants.[120] The Chicago school believes that barriers to entry are the production costs that potential competitors must undertake to enter into the industry and that existing companies do not have to bear.[121] The competency theory considers the barriers to entry from the perspective of sunk costs, so that the theoretical and practical worlds have a new understanding of barriers to entry. In today's economic practice, barriers to entry include factual or legal barriers, intellectual property restrictions, economies of scale and scope, product differentiation, and consumer loyalty to brands, strategic behaviors, network effects, and basic equipment. When analyzing whether the market entry can offset the anti-competitive effects of merger, the three conditions of timeliness, possibility, and adequacy of entry should be comprehensively considered.[122] Timeliness means that the time limit for potential competitors is short enough to enter the relevant market. The possibility refers to considering the possible reactions of existing companies. Potential competitors can still make profits after entering, and they are willing to enter the market. Adequacy means that the scale and scope of entry must be sufficient to offset the anti-competitive effects of merger. In general, as long as the above three conditions are met, it should be considered that entry can offset the anti-competitive effects of merger. As for the specific assessment of market entry, we can adopt the SSNIP test method, which is the same as the SSNIP test method defined in the relevant market, and will not be repeated here.

(b)Efficiency defense. As we know, economic efficiency is the basic goal pursued by the anti-monopoly law. Merger may increase the market power of merger firms and impair competition, but at the same time they may also produce economic efficiencies. There are numerous categories of efficiencies but the three principal ones are allocative efficiency, productive efficiency, and dynamic efficiency.[123] Merger can achieve economies of scale and economy of scope, saving fixed and variable costs. To achieve the goal of maximizing output or minimizing costs, promote the improvement of production efficiency. Allocative efficiency arises when suppliers produce goods and services that consumers want, as evidenced by their willingness to pay.[124] Merger objectively promotes the flow of resources to enterprises with high marginal productivity, which is conducive to the optimization, reorganization, and effective allocation of resources, and achieves efficiency in configuration. Dynamic efficiency is also called innovation efficiency. It includes technical change (leading to improvements

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[119] Massimo Motta, Competitive Policy - Theory and Practice, Cambridge University Press, 2004, p212

[120] See Joe S. Bain, Industrial Organization, Harvard University Press, 1959. See also Wu Hanhong, Unidirectional: "Discussion on Guidelines for Horizontal Mergers and Acquisitions of Chinese Enterprises", Social Science, No. 5, 2007, p50.

[121] George Joseph Stigler, Theory of Price, Massachusetts Institute of Technology Press,1946. See also The Economist as Preacher, University of Chicago Press, 1982, p121.

[122] Massimo Motta, Competitive Policy - Theory and Practice, Cambridge University Press, 2004, p213

[123] See the Appendix to W.J. Kolasky and A.R. Dick, “The Merger Guidelines and the Integration of Efficiencies into Antitrust Review of Horizontal Mergers”, Antitrust Law Journal, 71.3, 2003, pp207-242.

[124] Alistair Lindsay, Alison Berridge. The EU Merger Regulation: Substantive Issues. 4th edn, p8 1-009.

over time in products and production techniques) and learning-by-doing (when unit costs decline with cumulative output because the producer has greater experience of the production process).[125] Merger can reduce the cost to achieve dynamic efficiency by eliminating redundant R&D and high-tech expansion.

In order to maintain the free competition in the market and to optimize the allocation of resources, all countries have incorporated economic factors into their legal regulations. Given the two sides of merger, anti-monopoly law enforcement agencies need to decide whether to ban by weighing the efficiency of merger and the anti-competitive effect. There is a general trade-off between the fact that mergers may (and many commentators assume that they generally do) generate efficiencies and the fact that they may create or enhance market power.[126] In today's world, the measurement standards used by various countries are inconsistent and generally based on consumer welfare standards and total welfare standards. Under the consumer welfare standards, the benefits of competition and efficiency are attributed to consumers. When the consumer's revenue from efficiency exceeds its welfare loss, merger can be approved. Under total welfare standards, merger should be allowed as long as the efficiency of merger exceeds the net loss of welfare caused by price increases. Williamson's welfare balance model clearly illustrates this criterion. He applied a total welfare standard (and therefore treated the shift in welfare from consumers to producers as neutral) and recommended that mergers should be approved if the efficiency savings which benefit producers outweigh the deadweight welfare loss.[127] He also recognized that the welfare analysis might be complicated if price increases introduced by the merged group result in competitors raising their prices.[128]

In the merger control, there are three types of assessment methods commonly used when considering efficiency factors: general presumption, case-by-case analysis, and sequential decision-making. The general presumption method is to use a "safe harbor" standard to establish a threshold. A merger below this threshold is deemed to be more efficient than anti-competitive effect, and thus the merger is automatically passed. The case-by-case analysis method requires efficiency analysis of each merger, and compares the efficiency of merger with the anti-competitive effect. This method involves higher information costs than general presumption method and faces some quantitative difficulties. The sequential decision method is a compromise between the aforementioned two methods. First, set a low threshold, and merger below this threshold are automatically passed as more effective than anti-competitive effects. Instead, set a high threshold, and merger above this threshold are deemed to be less efficient. Then, a case-by-case analysis of the merger between the two aforementioned thresholds is conducted. In terms of specific operations, the anti-monopoly law

[125] Alistair Lindsay, Alison Berridge. The EU Merger Regulation: Substantive Issues. 4th edn, p9 1-010.
[126] The Commission acknowledge the trade-off in its XXIInd Annual Report on Competition Policy,1992, paras 7 and 8.
[127] O. Williamson, “Economies as an antitrust defense: the welfare trade-offs” (1968)58 American Economic Review pp18-31.
[128] O. Williamson, “Economies as an antitrust defense revisited” (1977) 125 U Pa Law Rev.699.

enforcement agencies can review merger according to screening tests, efficiency analysis, and cost-benefit trade-off procedures. Screening tests use general presumption to screen out merger that require further efficiency analysis. Then, qualitative analysis was conducted by investigating the reasons for merger and the motives of merger. Finally, we need to calculate the minimum efficiency requirements that can counteract anti-competitive effects. And confirm the expected efficiency of cost-benefit quantitative analysis.

Most countries' competition laws have contained efficiency defense. The United States is the first country in the world to introduce efficiency defenses in its anti-monopoly law. As early as in the 1968 Merger Guide, the United States has admitted that merger can bring an increase in efficiency, and in some special circumstances can accept the efficiency defense of merger. With the rise of the Chicago school in the 1970s, the influence of economic thought on anti-monopoly legislation became more and more profound. In the 1980s, the Reagan administration initiated a revolution in the anti-monopoly law. The concept of efficiency completely replaced the traditional concept of anti-monopoly. Since 1987, efficiency has become one of the factors that need to be considered in anti-monopoly enforcement. At present, U.S. courts have extensively applied the analytical framework for assessing efficiency defense set out in the revised Merger Guidelines 1992 and 1997.

The European Union started late in citing efficiency defenses to evaluate the effectiveness of competition. Until the Merger Regulation No. 4064/89 in 1989, the word "efficiency" appeared in the Merger regulatory system. Article2(1) subparagraph (b) stipulates that efficiency can be used as a factor to measure the competitive effect of merger by competition agencies, but it is not a defense. The Commission needs to consider the trend of supply and demand of related goods and services when evaluating the effectiveness of merger; consumers' ultimate and immediate interests; technological and economic development factors. Only when merger meets consumer benefits and does not constitute an impediment to competition, nor does it create or strengthen market dominance, efficiency factors can be considered. It can be seen that market dominance is still the most important factor in evaluating the effectiveness of merger. In terms of increased efficiency and reduced competition, it is clear that the EU focuses on maintaining the overall market's competitive order. Therefore, so far, the European Commission has mentioned efficiency defenses only in a few merger control decisions. In these cases, once it is determined that this merger will generate or strengthen market dominance, the efficiency it brings will no longer be taken seriously. However, as the review standards of the anti-monopoly regulatory entities have been moving towards efficiency, the EU has made new adjustments to its efficiency defense factors in its Horizontal Merger Guidelines and the 139/2004 Merger Control Regulations. The European Union has set detail conditions of recognition of efficiency defense in the Horizontal Merger Guidelines. When the efficiency brought by a merger is conducive to improving the welfare of consumers, and the true credibility can be confirmed; and the timely acquisition after the acquisition, the European Commission can recognize

the efficiency defense made by the parties.[129] At the same time, the simultaneous growth rule of the United States has also been introduced. It holds that if an increase in efficiency brought about by a merger is greater than the damage caused to the society by the merger, which hinders the competition, then the merger can be approved. In addition, if the efficiency resulting from the merger enhances the ability and motivation of the merged entity to benefit competition and consumer, and thus counteracts the potential adverse effects of mergers on competition, there is no reason to declare that the merger does not match the community market.[130] As a result, the EU's attitude towards efficiency defense factors has been clarified. Although the review of the EU entity's review standards towards the direction of efficiency started relatively late, it was only in its infancy before 2002. However, through the provisions of the Horizontal Merger Guidelines and the Merger Control Regulation No.139/2004, the efficiency of the substantive standards has rapidly increased to the level of efficiency defense of the 1997 Merger Guideline in the United States. In this short period, the position of the EU has shifted from rejecting to admitting the efficiency defenses to enacted relevant legislation.[131] We have to admit that the EU is catching up with the efficiency protests. Although the European Union clearly draws on the experience of the development of US efficiency defense, it still based on the value orientation of the EU's basic legislation. This point is worthy of learning in the process of continuing to improve the substantive review standards.

(c) The counter buyer's power. The counter buyer's power means that a strong buyer forces the merged supplier to participate in the competition by exercising their own power, thereby offsetting the anti-competitive effect of the merger. Specifically, the offsetting effect of the buyer's power on the anti-competitive effects is mainly as follows: On the one hand, in the face of post-acquisition supplier prices or restrictions on output, strong buyers can move to other suppliers in a timely manner. In this case, the production capacity of other suppliers and the dependence of the buyer on the supplier are the key to the buyer's power. On the other hand, a strong buyer can use its buyer's power to nurture a new supplier or enter the upstream market by themselves, in order to respond to the post-acquisition supplier's price or limit the output behavior. At this time, it needs to consider whether the buyer's power is strong enough to successfully foster new entrants or to successfully enter the upstream market. The strength of the buyer's strength is the key to offsetting the anti-competitive effect of merger. The determination of the buyer's power requires a different approach to be considered from different perspectives. The most direct way to determine the buyer's power is to measure the buyer's concentration, which can be considered from the perspective of the number of companies and the HHI index. In addition, the buyer's power can also be measured using supply elasticity. The smaller the supply elasticity, the greater the market power of the buyer. Finally, the use of performance analysis

[129] Nocke, V. and M.D. Whinston, "Dynamic Merger control", CSIO Working Paper, 2008, p99.
[130] Farell J. and M.L. Katz, The Economics of Welfare Standard in Antitrust, Competition Policy international 3, 2006, pp673-701.
[131] De la Mano, For the Consumer Sake: The Competitive Effects of Efficiencies in European Merger Control, EC Enterprise Paper 11, 2002, p31

methods such as the profitability and bargaining power of companies can be used to measure buyer power. In practice, the Commission may measure the buyer's concentration levels and seller's concentration levels when measuring buyer's strength, examine whether there is a big obstacle to the buyer's transition to an alternative supplier, evaluate the buyer's dependence on the supplier's products, observe whether the supplier's discriminatory pricing of the weak buyer when the strong buyer and the weak buyer coexist, considering whether the buyer has a diversified supply, etc.

(d)Failing company doctrine. Bankruptcy is the result of the survival of the fittest in the market economy and is a normal economic phenomenon. However, bankruptcy may lead to a series of negative consequences. For example, bankrupt companies are forced out of the market and cause unnecessary economic losses. Workers in bankruptcies are unemployed, and the interests of shareholders and investors are impaired. Therefore, in the review of merger, the principle of "Failing company doctrine," that is, a company in merger is about to go bankrupt, even if the merger does not make its related assets out of the market, and this merger will not have anti-competitive effect, then the merger can be approved. The European Union first analyzed the failing company doctrine in the 1990 Aerospatiale case[132], and in the Kali and Salz case[133] of 1994 established the concept and application conditions of the bankrupt enterprise defense. The principle of the bankruptcy enterprise is based on the economic logic: if an enterprise is on the verge of bankruptcy, it will withdraw from the market if it does not participate in merger. The exit itself may reduce market competition and change the competitive structure and conditions of the current market. Therefore, the competitive structure after the merger will not be worse than the prohibition of post-merger competition structure. Moreover, even if the companies on the verge of bankruptcy participate in merger, their own competitiveness is not strong and will not seriously damage competition. Therefore, all countries will take special care in merger involving bankrupt companies in the review.

3.3 New Issues of Turnover-based Jurisdictional Thresholds.

Whether it is the increasingly completed Merger Control Regulation and substantive standards or the clear market definition, the EU's legislative system on merger is increasingly perfect. Relying on such a judicial system, the EU has made great achievements in protecting competition and preventing monopolistic behavior. However, with the rapid development of society, the digital economy and the Internet economy have occupied a place in the global economic environment. Whether the EU's purely turnover-based jurisdictional thresholds can be as effective as it used to be has become a hot topic. The EU Merger Regulation only applies to concentrations of a Union dimension, which are those where the undertakings concerned meet the relevant turnover thresholds.[134] The thresholds clearly described in the EU Merger Regulation

[132] Case No. M.17 MBB/AEROSPATIALE
[133] Case No. M.308 KALI + SALZ/MDK/TREUHAND
[134] Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control (http://ec.europa.eu/competition/consultations/2016_merger_control/index_en.html)

Article 1(2): A concentration has a Community dimension where:(a) the combined aggregate worldwide turnover of all the undertakings concerned is more than EUR 5000 million; and (b) the aggregate Community-wide turnover of each of at least two of the undertakings concerned is more than EUR 250 million, unless each of the undertakings concerned achieves more than two-thirds of its aggregate Community-wide turnover within one and the same Member State.[135] In Article 1(3): A concentration that does not meet the thresholds laid down in paragraph 2 has a Community dimension where:(a) the combined aggregate worldwide turnover of all the undertakings concerned is more than EUR 2500 million; (b) in each of at least three Member States, the combined aggregate turnover of all the undertakings concerned is more than EUR 100 million; (c) in each of at least three Member States included for the purpose of point (b), the aggregate turnover of each of at least two of the undertakings concerned is more than EUR 25 million; and (d) the aggregate Community-wide turnover of each of at least two of the undertakings concerned is more than EUR 100 million, unless each of the undertakings concerned achieves more than two-thirds of its aggregate Community-wide turnover within one and the same Member State.[136] When two or more companies are preparing for merger, if their turnover reaches the aforementioned amount, the Commission will determine that the merger has a community size. After defining the relevant market and calculating the market share and market concentration levels, if the merger is significant impediment to effective competition, the merger will not pass. In other words, if the company's turnover does not reach the threshold, Commission supervision may fail.

Compared with the past decade, among the companies participating in merger, the proportion of Internet companies, information technology companies, bio-industries, pharmaceutical industries and new energy companies (especially new energy automobile companies) has continuously increased. The market value of these companies may not be high, and the turnover may not be large, but these companies may play an important role in the market. The electronic information data and valuable business data they own may have very high commercial value and thus affect competition. The bio-industry or new energy company has new technology and new energy use, patented technology. Once these companies participate in merger, it is likely to affect the competition of the internal market. In response to this situation, the Commission held a Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control[137] in 2017. Total more than 90 public and private authorities submitted their views (15 national competition authorities ("NCAs"), 7 other public bodies, 31 associations, including industry and consumer associations, 21 companies, 19 law firms, 4 research institutes and 1 from private Individuals).[138] Then in July 2017,

[135] Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation)
[136] Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation)
[137] Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control (http://ec.europa.eu/competition/consultations/2016_merger_control/index_en.html)
[138] Summary of replies to the Public Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control, p1

Commission published replies to those authorities and detailed the opinions of the respondents and the views of the Commission.

In the feedback of public and private authorities, there are a minority of respondents—including several national competition authorities (NCAs) and other public bodies, a few companies and association—perceive the existence of such an enforcement gap and are in favor of introducing complementary jurisdictional thresholds.[139] People who support this view believe that the significant merger that hinders competition, especially in the digital industry, is not fully managed by the EU Merger Regulation. This also happens in the pharmaceutical industry and patent portfolio acquisitions. A minority of responding companies and law firms provide many cases to prove that there is a real law enforcement gap, and the most cited is the case of Facebook acquiring WhatsApp. At the time of the merger and acquisition, Facebook's share price was $68, with a market value of 175 billion U.S. dollars. In 2013, it had a total revenue of approximately 7.9 billion U.S. dollars and approximately 1.23 billion Monthly Active Users (MAU). WhatsApp's MAU exceeds 450 million, uploads 600 million photos, 200 million voices, and 100 million video messages every day. But WhatsApp's turnover is not high and does not exceed the EUMR's threshold. Finally, the deal was completed with $19 billion. As the merger between Facebook, the world's largest social networking platform, and WhatsApp, the largest instant messaging software, it is difficult to imagine that the EU would conduct an anti-monopoly investigation after the merger. After the merger, Facebook got a lot of customer privacy information from WhatsApp. Then WhatsApp announced that it has made major changes to its privacy policy and will start sharing data with its parent company Facebook for advertising purposes. Facebook will also use the acquired data for advertising, and they can directly send recommendations to users, including product marketing, appointment reminders, and meeting arrangements. Such behavior is to use the valuable digital data acquired by merger to profit and infringe user privacy. In fact, Facebook was also exposed this year and revealed 50 million user privacy data in 2014. Although the EU imposed an anti-monopoly fine of 110 million euros on Facebook in 2017, the regulator did not withdraw its approval for the WhatsApp purchase transaction, nor did it force Facebook to completely change certain operating methods. Although the new EU regulation on data protection does address this kind of activities, this case illustrates that in modern society, many companies acquire other companies for the purpose of obtaining valuable business data. These commercial data or patented technologies are potential factors that impede competition and even create monopolies. However, the value of these data is hard to be counted in the scope of turnover, which led to these low turnover but high commercial value merger to escape the merger control. In addition to the Facebook / WhatsApp case, respondents also mainly refer to the recent acquisition of small companies by some large Internet companies (operators such as LinkedIn, Walla pop or Waze, to name a few examples, can also have large stores of information without presenting high levels

(http://ec.europa.eu/competition/consultations/2016_merger_control/summary_of_replies_en.pdf)

[139] Summary of replies to the Public Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control, p1
(http://ec.europa.eu/competition/consultations/2016_merger_control/summary_of_replies_en.pdf)

of turnover).[140] Most of them have escaped merger control review in Europe.[141] Therefore, NCAs, research institutions and companies that support this view suggest the introduction of a complementary jurisdiction threshold. The so-called complementary jurisdictional thresholds mainly refer to the value of transaction thresholds. They believe that the Commission can set a higher transaction amount requirement and make the transaction value as an alternative criterion to expand the EUMR's jurisdiction by adding a notification requirement based on the number of consumers which are directly impacted by the merger.[142]

Conversely, the majority of public and private stakeholders responding to the questionnaire do not perceive any (significant) enforcement gap as regards highly valued acquisitions of target companies that do not generate sufficient turnover to meet the jurisdictional thresholds of Article 1 of the EU Merger Regulation, which would require legislative action.[143] They believe that there is not enough evidence and cases at this stage to prove that the existence of such low turnover but high commercial value merger impact the competition in the market. Even if this happens, the case referral system stipulated by the EUMR and Member States' merger control systems are sufficient to deal with such cases. The Danish government is a firm supporter of this view, according to the Danish Competition Act, a merger must be notified when the participating undertakings have a combined turnover of at least DKK 900 Million (approx. EUR 120 Million) in Denmark and at least two of the undertakings each have an annual turnover of DKK 100 Million (approx. EUR 13.4 Million) in Denmark[144]; transactions involving small and medium sized enterprises must, therefore, be notified under the Danish Competition Act, and are referred to the European Commission under article 22 (139 /2004), if the merger affects the trade between the Member States and threatens to significantly affect competition.[145]

The majority of respondents also put forward many opposing views on whether or not a complementary threshold is needed. First of all, they believe that the purchase price is subjective, and it is influenced by the market environment at that time and the future business expectations of the acquisition company. Even if the transaction price is high,

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[140] In this interesting conference in Brussels on 3 October 2016, Damien Neven noted at 1:15:55 that perhaps LinkedIn does not have a turnover that would permit the review by the European competition authorities, as it does not exceed the legal thresholds established for this purpose. "Big data, digital platforms and market competition". http://bruegel.org/events/big-data-digitalplatforms-and-market-competition/

[141] Summary of replies to the Public Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control, p5 (http://ec.europa.eu/competition/consultations/2016_merger_control/summary_of_replies_en.pdf)

[142] Explanation of AMO SR answers to PUBLIC QUESTIONNAIRE: Consultation on Evaluation of procedural and jurisdictional aspects of merger control. p2(http://ec.europa.eu/competition/consultations/2016_merger_control/antimonopoly_office_of_the_slovak_republic_contribution_en.pdf)

[143] Summary of replies to the Public Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control, p5 (http://ec.europa.eu/competition/consultations/2016_merger_control/summary_of_replies_en.pdf)

[144] See E. Bertelsen, Competition Law in Denmark, 2011, KLI, p133.

[145] Comments on the European Commission's Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control p2 (http://ec.europa.eu/competition/consultations/2016_merger_control/danish_competition_and_consumer_authority_on_behalf_of_the_danish_government_contribution_en.pdf)

it does not mean that it will impact market competition. Also, the Commission faces the difficulty to determine the value of many transactions. Respondents point for instance to contractual earn-out provisions or conditional milestone payments, fluctuation of share prices between e.g., the announcement of a transaction and its closing and exchange rate fluctuations that can all significantly modify the value of the transaction.[146] Therefore, in practice, it is likely that there will be cases that consume a lot of judicial resources to conduct anti-monopoly investigations and ultimately false. Freshfields-Bruckhaus-Derringer is one of the supporters of this view. In addition, they think that: "taking the US experience as a guide, we would expect that the Commission would have to dedicate fairly resources to addressing questions from businesses around the calculation of a deal's Value."[147]

I think both sides have a certain point of view. But I prefer to oppose the value of transaction as a threshold. Firstly, according to the principle of proportionality, the introduction of the value of transaction threshold by the Commission would only increase unnecessary administrative expenditures in the absence of sufficient evidence to support it. At the same time, more sophisticated merger controls will reduce the enthusiasm of overseas investors and reduce the number of foreign investments and merger. Although in a number of EU Member States, the economy is characterized by small and medium sized enterprises, which do not engage in merger, the reduction of foreign capital will still have an impact on the European economy. Secondly, compared to the introduction of a new threshold, optimizing the referral system and member state's merger control system will more effectively solve the problem of little turnover/high value companies. Compared to the introduction of a new threshold, optimization of referral system and member state's anti-monopoly rating system will more effectively solve little turnover/high value companies. Because such merger mostly need to be reviewed at the national level, if the referral system is simplified and its efficiency is improved, such cases will be better resolved. Some respondents note that national laws usually can be adapted more swiftly to deal with unintended consequences of legislative changes than European laws.[148] Finally, I think that if there is such a case in the future, separately supplementing legislation for different industries can prevent such merger from falling out of supervision. Holding consultations of related interest groups, competitors in the industry and consumers is also an effective way to judge whether merger will affect competition.

[146] Summary of replies to the Public Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control, p6
[147] Response to the European Commission's Public Consultation of 7 October 2016, p9
[148] Summary of replies to the Public Consultation on Evaluation of procedural and jurisdictional aspects of EU merger control, p7

Chapter IV: China Merger Control Substantive Criteria and Suggestions

In the last chapter, I introduced the relevant systems for EU merger control. The EU's merger control system started earlier and developed rapidly, but the enactment of the Anti-Monopoly law in China is recent, and the research on the merger control system is still immature. In the field of economic law, in order to regulate market competition, China promulgated the Law of the People's Republic of China for Countering Unfair Competition and the Anti-Monopoly Law of the People's Republic of China in 1993 and 2008 respectively. Substantially, China's "Anti-monopoly Law" is more analogous to the competition law system in the EU. Compared to EU, there are still some imperfections in the "Anti-Monopoly Law" and related support systems. In the above, I described in detail the EU's anti-monopoly regulations for merger. In this chapter, firstly I will introduce the development history of China's anti-monopoly law. Then, I will compare China's anti-monopoly regulations, identify defects, find problems and give some suggestions. Meanwhile, In the face of the impact of the rapid development of the Internet industry on traditional merger control, I will analyze the challenges faced by the existing system, the shortcomings, and find solutions.

4.1 Current Situation of Merger Legislation and Substantive Standard in China.

4.1.1 China's Anti-Monopoly Law Development and Status Quo

China has become the second-largest economy in the world after the United States. With the continued implementation of the opening-up policy, there are more and more trade contacts between Chinese and European enterprises. Merger and acquisition are very effective ways to help companies acquire resources, advanced technologies and optimize the industrial structure, and achieve rapid expansion at a low cost. Brunswick Consulting pointed out in a report on overseas acquisitions of Chinese companies that in the global merger market, the number of merger by Chinese companies surpassed that of all other countries, ranking first in the world in 2017.[149] According to Bloomberg data, Chinese companies or assets involved in merger transactions amounted to US$659.6 billion, and Chinese companies' export-oriented acquisitions

[149] Chinese Company Overseas M&A Report in 2017, Brunswick Group.

were record-breaking, totaling US$181.7 billion.[150] With China's economic development, merger have also shifted from the former foreign companies' acquisition of Chinese companies to the acquisition of foreign companies by Chinese companies.

Before the promulgation of the "PRC Anti-Monopoly Law," China's legislation involving merger supervision was found in the Securities Law, Voucher Law, Company Law, Anti-Unfair Competition Law, Price Law and related administrative regulations. The administrative regulations addressing merger activities are mainly the Measures for the Administration of the Takeover of Listed Companies issued by the China Securities Regulatory Commission in May 2006 and revised in 2014[151] and Provisions on the Merger and Acquisition of Domestic Enterprises by Foreign Investors[152], which were jointly issued by the General Administration of Administration, the China Securities Regulatory Commission, and the State Administration of Foreign Exchange, which came into effect on September 8, 2006. Except for the procedural provisions in the Foreign Investors Regulation concerning merger declarations, other laws and regulations do not legislate from the perspective of competition law. Therefore, there is a gap in the competition law area and this makes China's merger control very difficult. In this background, the Anti-Monopoly Law of the People's Republic of China[153] was formally promulgated. The direct purpose of this law is to prevent and suppress monopolistic behavior, protect fair market competition, and improve economic efficiency. The fundamental purpose is to safeguard consumer interests and public social interests and promote the healthy development of the socialist market economy. Article 20-31 of the Anti-Monopoly Law makes specific provisions on the status of merger, declarations, and substantive standards, and fill the gap in merger regulations. The Anti-Monopoly Law provides an overall legal framework for merger control. It provides principled rules for the merger declaration and examination standards of enterprises. The guiding ideology and basic principles of related issues are defined, and the specific standards and processes are left to the law enforcement agencies.

In the institutional reform of the State Council in 2018, China has completed the overhaul of its competition enforcement system with the merger control function being transferred from the Ministry of Commerce to the newly established State Markets Supervision Administration. At the same time, the transfer to the State Markets Supervision Administration also includes the responsibility of the State Development and Reform Commission for price supervision and inspection and anti-monopoly law enforcement. In State Markets Supervision Administration, the Anti-Monopoly Bureau is responsible for the unified enforcement of anti-monopoly. Coordinate the implementation of competition policy and guide the implementation of a fair competition review system. Conduct merger control of the concentrated behavior of the operators according to law, and be responsible for anti-monopoly law enforcement such

[150] Bloomberg M&A Global Guidelines - Mergers and Acquisitions in Greater China in the First Three Quarters of 2017
[151] Measures for the Administration of the Takeover of Listed Companies (2014 Revision)
[152] Provisions on the Merger and Acquisition of Domestic Enterprises by Foreign Investors, 2009.
[153] Anti-monopoly Law of the People's Republic of China, August 2008.

as monopoly agreements, abuse of market dominance position and abuse of administrative power to exclude and restrict competition. To guide Chinese companies in antitrust litigation abroad. To undertake the daily work of the Anti-Monopoly Committee of the State Council. This change means that the anti-monopoly law enforcement and supervision powers are unified, avoiding the conflict of powers and responsibilities between the three anti-monopoly agencies. Also avoiding the problem of shirking responsibility between several departments when problems arise. This is conducive to the public's supervision of anti-monopoly law enforcement work, and it is also more conducive to enterprises to carry out anti-monopoly declaration.

4.1.2 China's Merger Control Substantive Standard Legislative Development

The normative documents involving different levels of substantive standards in China's merger control system mainly include laws, administrative regulations, departmental rules, and guiding documents, etc., which are collectively summarized as follows:

Normative documents name	Effective time	Legal hierarchy	The article of the substantive standard and main contents
Anti-Monopoly Law	January 1, 2008	Law	Article 27 of this Law enumerates the factors that have been considered during the process of reviewing the operator consolidation [154], including market share, market concentration, impact on the national economy, technological progress, and market entry. Article 28 of this Law requires that business operators be concentrated under what circumstances they will be banned and under what circumstances they can apply for the exemption and will not be barred.
Provisions of the State Council on Thresholds for Prior Notification of Concentrations of Undertakings	August 3, 2008	Administration regulation	Article 3 specifies the specific reporting standards for the concentration of business operators. When the required standards are met, they should be declared and reviewed. Article 4 is a supplementary provision that specifically stipulates the review of merger that have not yet met the declared standards but still have or may have impaired competition.
Guiding Opinions of the Anti-Monopoly Bureau of the Ministry of Commerce on the Declaration of Concentration of	January 5, 2009	Directive	Paragraph 2 of Article 8 deals with the substantive standards in the documents required for the declaration, and the documents required to be submitted include the relevant information on the consideration of various considerations by the merger control.

[154] operator consolidation is the same concept as company concentration.

Business Operators (2014 Revision)			
Guiding Opinions of the Anti-Monopoly Bureau of the Ministry of Commerce on the Declaration documents of Concentration of Business Operators	January 5, 2009	Directive	Article 5 stipulates the need for the concentration declaration of business operators to submit documents describing the impact of the concentration on competition, including the definition and rationale of the relevant market, the basic state of the transaction, the effect of concentration on the market structure, the upstream and downstream enterprises in the relevant market, and supply. Article 6 is an analysis of market entry, starting from factual or legal obstacles, intellectual property restrictions, economies of scale, entry of potential competitors, and the status of access in recent years. Article 7 is to consider whether the participating operators have monopoly agreements through other means. Article 8 is a comprehensive analysis of the effects including market structure, competitors, consumers, and economic development. Article 9 is an analysis of efficiency, including the way, time, and requirements for efficiency. Article 10 requires that the review should take into account the situation of the intensive parties in other markets.
Guidelines on the definition of relevant markets	May 2009	Directive	The guide made more detailed provisions on the definition of the relevant market. Article 3 stipulates the meaning and type of the relevant market, usually including related product markets and geographical markets. Article 4, 5, and 6 are alternative analyze, of which Article 4 is a general introduction, Article 5 is a demand substitution analysis, and Article 6 is a supply substitution analysis. Articles 8 and 9 are the factors influencing the relevant commodity markets and geographical markets, respectively. Article 10 and 11 separately introduce the "assumed monopolist test".
Calculating method for centralized declaration of turnover of financial industry operators	August 15, 2009	Divisional Regulation	The full text of the contents of the declared turnover and the accounting methods in the process of merger of financial institutions such as banking financial institutions and securities companies.
Measures on Notification Filing in Connection with Concentration of Undertaking	January 1, 2010	Divisional Regulation	Article 4, 5, 6, and 7 make specific provisions on the turnover and specific accounting involved in the substantive examination of the operator concentration.
Rules for the review of the operator	January 1, 2010	Divisional Regulation	Article 6 and 7 stipulate that in the review process, parties participating in the operator concentration, competitors, and related companies may be invited to attend the hearing to reflect the various elements of the

concentration			review.
Interim Provisions for the Assessment of the Effects of Concentrations of Business Operators on Competition	September 5, 2011	Divisional Regulation	Article 3 generally reiterates the considerations of the operator concentration review. Article 4 (1) and (2) separately describe unilateral effects and coordination effects. Article 5 focuses on market share, product substitution, financial and technical conditions, control of the sales and procurement market, production capacity and product substitution of non-participating managers, the ability of buyers to switch suppliers, and downstream customers. Analysis of purchasing power and other aspects of whether to obtain or enhance market control. Article 6 introduces HHI index and CRn index to measure market concentration levels. Article 7 is the regulation of market entry. During the review, it mainly analyzes the barriers to entry, examines the offset effect of entry, the possibility of market entry, the timeliness, and adequacy. Article 8, 9, 10, and 11 are provisions on efficiency. They mainly analyze how the concentration produces efficiency and what is the effect of efficiency. Article 12 requires competition analysis to consider comprehensively the factors such as the concentration of impact on the public interest, the impact on economic efficiency, whether it is on the verge of bankruptcy, and whether there is countervailing buyer power.

In the begin, the 2008 Anti-monopoly Law is the cornerstone of merger control. It gives a general outline of merger control: anti-monopoly law enforcement agencies should make a decision to ban concentration on merger that have or may have the effect of eliminating or restricting competition. However, if it can be proved that the beneficial effects of concentration on competition are significantly greater than the adverse effects, or in line with the public interest, it may not be prohibited. However, there are no specific provisions on the specific amount threshold, the accounting method of turnover, the documents and materials required for anti-monopoly declaration, how to specifically divide the relevant market, how to define market concentration levels and market share. Therefore, the Anti-Monopoly Bureau supplemented these contents in the following three years through departmental regulations, administrative regulations and guiding documents. Provisions of the State Council on Thresholds for Prior Notification of Concentrations of Undertakings Article 3 gives the standard amount of anti-monopoly declaration: the combined worldwide turnover of all the undertakings concerned in the preceding financial year is more than RMB 10 billion yuan or the combined nationwide turnover within China of all the undertakings is more than RMB 2 billion yuan, and the nationwide turnover within China of each of at least two of the undertakings concerned in the preceding financial year is more than RMB 400 million yuan.[155] This threshold for sales is much higher than that of the EU. I think this is because China is more accepting of merger, and no merger control measures are taken

[155] Provisions of the State Council on Thresholds for Prior Notification of Concentrations of Undertakings Article 3.

for the vast majority of merger. It can also be seen from the adoption rate of the anti-monopoly declaration in the first half of 2018 that there is a total of 191 unconditional approvals and no cases of non-approval.[156] The two guiding documents issued in January 2009 then detailed the definition of "control", the calculation method of turnover, and the declaration documents required for reporting. These two guides provide a specific reporting process for merger companies that require anti-monopoly filings, listing the content that should be included in the declaration. In order to make the merger control of concentrations of undertakings operability, the State Council Anti-Monopoly Commission issued the Guidelines on the definition of relevant markets in May 2009. It defines the definition of the relevant market, the basic factors of defining the relevant market, and the general method. The Guideline stipulates that substitute analysis should be based on "product characteristics, functional use, price, etc.", and SSNIP should be used for economic analysis only when the market cannot be clearly defined.[157] However, Guideline's provisions only stipulate these contents in principle, leaving specific analysis and judgment to law enforcement personnel, which leads to the high discretion of anti-monopoly law enforcement agencies. For example, Articles 3, 5, and 6 all have similar provisions like "it needs case by case analysis in anti-monopoly practice."[158] Even with the SSNIP method, the Guideline simply introduces its definition and stipulates: "In law enforcement practice, the magnitude of a small increase in price can be determined according to the different circumstances of the industry involved in the case."[159] This makes the Guideline only provide macro guidance in practice. Calculating method for centralized declaration of turnover of financial industry operators specifies the financial institution's turnover calculation formula and turnover calculation factors. The two departmental regulations in 2010 complemented some of the specific circumstances of the turnover calculation and the hearing system. For example, Measures on Notification Filing in Connection with Concentration of Undertaking Article 7 stipulates how to calculate the turnover when a company acquires a part of one or more operators.[160] These specific regulations have solved some of the common problems of the undertakings concentration that need to be reported. Finally, Interim Provisions for the Assessment of the Effects of Concentrations of Business Operators on Competition generally defines market shares, market entry, market concentration levels, market control, and so on. However, all of these provisions are general descriptions, including the CRn and HHI index, which are also a simple introduction to the calculation method. The specific index scope is not divided according to the social situation in China. Moreover, there is no requirement to use CRn and HHI index at all. In the decision of the Ministry of Commerce on merger control in recent years, there is no trace of the use of these two indexes by anti-monopoly agencies. I do not know whether the decision made in this way is reasonable, but the judgment of market share and market concentration should be based on the EU's

[156] The Anti-Monopoly Bureau unconditionally approves the list of centralized business operators in the first and second quarters of 2018 (http://fldj.mofcom.gov.cn/article/zcfb/201807/20180702762364.shtml)
[157] Guidelines on the definition of relevant markets Article 7.
[158] Guidelines on the definition of relevant markets, Articles 3, 5, 6.
[159] Guidelines on the definition of relevant markets, Article 11.
[160] Measures on Notification Filing in Connection with Concentration of Undertaking, Article 7

relevant system for more detailed legislation.

It can be seen from the Antimonopoly Law Article 3 that China has used the “Undertakings concentrations may have the effect of restricting or eliminating competition. “as the substantive standard. The adopted substantive standard is more similar to the "substantial reduction in competition" standard, which is slightly different from the EU SIEC standards. The difference is also the inadequacy of the substantive standards of China's merger control. I will explain in detail below.

4.2 Inadequate Legislation on Merger Control in China

4.2.1 The Legal System of Merger Control is Incomplete.

Since the implementation of the Anti-Monopoly Law in China in 2008, with the introduction of a series of regulatory documents, merger control of operator consolidation has been gradually improved by these regulations. However, there are still some problems in the legislation. In general, China's current Anti-Monopoly Law and its supporting systems do not form a complete merger control system for merger, and a complete legal framework has not been formed.[161] Although there is one chapter in the “Anti-Monopoly Law” that stipulates the concentration of operators, the contents are general and principled provisions. The substantive and procedural provisions are mainly found in the departmental regulations and guidelines formulated by various related departments. The provisions and application of substantive standards are scattered among relevant laws, administrative regulations, a series of departmental regulations, and guidance documents. There is a lack of a systematic, comprehensive legal document. Moreover, there are the absence of practical operation rules in the merger control system in China. As far as the existing laws and related systems are concerned, most of them are procedural rules. The substantive regulations are relatively few. Some of the substantive issues are not specified in detail. This causes the anti-monopoly law enforcement agencies to face the problem of lack of substantive standards when conducting merger control. The existing normative documents that stipulate the substantive issues are also insufficient. The main problem is that the relevant regulations are too principled, not specific, clear, and lack of operability. and as a result, law enforcement agencies have excessively wide discretionary powers, which easily leads to questions about the final ruling of the society.

China's merger control of enterprises should measure market share and market concentration levels after defining related markets, and consider the anti-competitive effects resulting from unilateral effects and coordination effects, and at the same time examine the offsetting effects of market entry. Then they should evaluate the efficiency

[161] Shi Jiansan: "Reflections on the Perfection of China's Managers' Concentration in the Substantial Review of the Defense System", Law Science, No. 2, 2009, p103

of merger. Finally, law enforcement agencies will conduct a comprehensive analysis of the impact of merger on competition in light of whether there is a countervailing buyer power or a bankruptcy company and other situations. China's laws, regulations, and guidance documents have all these factors involved, but overall, the laws and regulations are still too principled, general, and vague, not specific and clear, and they are not practical in practice.

4.2.2 The Reporting System is Defective.

First of all, China only stipulated the system of pre-declaration and did not provide for post-examination. In practice, the monopolistic motives of a merger are sometimes difficult to define at the beginning. If the Antimonopoly Bureau carries out a dynamic analysis of the merged market, it will be discovered that the restriction and damage to market completion will not show up until after the merger. For example, the case of Hefei Yifan monopolized urea raw materials. In 2009, after Yifan Pharmaceutical, New Bohai Pharmaceutical, and Hibiscus Pharmaceuticals merged, the domestic sales price of urea raw materials changed from 35 yuan(1kg) to 350 yuan (1kg), which was 10 times higher than the original price.[162] Yifan Pharmaceutical has become the only company in the country to control the supply of urea APIs. This situation was exposed by the media two years later. The anti-monopoly law enforcement agency of the National Development and Reform Commission began its investigation.[163] After the investigation, in 2012, the company was required to reduce the prices of raw material medicines from 380 yuan per kilogram to 198 yuan, and reduce the burden on downstream enterprises by 20 million yuan.[164] This means that the NDRC's anti-monopoly law enforcement has put a "legal coat" on such pricing. If we compare the situation before the merger, it means that downstream companies have to pass at least 16.46 million yuan to consumers. In order to prevent such merger from becoming a slippage through the net, it is necessary to establish a merger control post review system as an effective supplement to the pre-declaration system.

Secondly, the reporting standards need to be supplemented and improved. China currently uses the size of transaction volume (turnover) as the sole criterion for reporting, and does not consider market share and party size. In Provisions of the State Council on Thresholds for Prior Notification of Concentrations of Undertakings Article 3: Where a concentration of undertakings reaches any of the following thresholds, the undertaking(s) concerned shall file a prior notification with the competent commerce department of the State Council, and no such concentration may be implemented without the clearance of prior notification:(i) the combined worldwide turnover of all

[162] Qiu Qiumei and Hua Qi, Cheap drug price survey: Why does urea ointment disappear from the market? First Financial Daily, 2010.01.06.
[163] Although according to the law, this should be investigated by the Antimonopoly Bureau of Ministry of Commerce.
[164] "2012 Price Supervision, Inspection, Antitrust, and Major Work Arrangements in 2013", contained in "China Price" February 2013

the undertakings concerned in the preceding financial year is more than RMB 10 billion yuan, and the nationwide turnover within China of each of at least two of the undertakings concerned in the preceding financial year is more than RMB 400 million yuan; or(ii) the combined nationwide turnover within China of all the undertakings concerned in the preceding financial year is more than RMB 2 billion yuan, and the nationwide turnover within China of each of at least two of the undertakings concerned in the preceding financial year is more than RMB 400 million yuan.[165]The merger of many emerging industries, because of the small scale of the overall industry, it is difficult for merger to meet the specific turnover standards stipulated by the State Council. According to the current regulations, such merger may not require operator consolidation applications. If merger among the larger market players in this emerging industry may create monopolies and undermine competition, such monopolies will have more damage to an emerging industry than mature industries. For example, the case of DiDi/Uber (China). In the online car booking market, more than 80% of the market share makes DiDi has an absolute dominant market position. After merger, the market share of DiDi and Uber (China) will exceed 90%, others divided by CAR Inc. and Easy Arrive. However, in 2017, DiDi announced its merger with Uber and did not report to the Ministry of Commerce. On August 1st, a person from DiDi Public Relations department told the reporter: “Now, both DDT and Uber China have not realized profitability, and Uber China’s turnover in the previous fiscal year has not reached the declared standard, so it will not face merger control."[166] After the merger, DiDi reduced a series of subsidies and drastically increased taxi prices, which made people question the effectiveness of the turnover standards and the anti-monopoly bureau's law enforcement capabilities. Both DiDi and Uber provide an online taxi service to connect passengers and drivers. In contrast, the volume of Wal-Mart's transactions is its own turnover, because Wal-Mart is mainly based on physical store operations.[167] However, if the entire transaction amount of the net booking platform is counted as the turnover, or the driver's income is deducted, only the service income is calculated, this is a question. There is no detailed standard at present. There are also no similar cases that can be referenced at home or in the United States and the EU. This makes it difficult to calculate the turnover. In addition, in relation to the definition of the relevant market and the calculation of market share, DiDi has defined the relevant market as much as possible to dilute its own market share. That is, as far as possible, the private car business is portrayed as being substitutable to the taxi business. Although there is a clear difference between the market access, service forms and price structure, and the degree of control imposed on the two markets, DiDi still evades the reporting standard. There are many other loopholes in the reporting standard for turnover. For example, many companies have avoided statutory reporting standards by divesting part of their target businesses, such as Baidu/Iqiyi merged case, or diluting the relationship

[165] Provisions of the State Council on Thresholds for Prior Notification of Concentrations of Undertakings Article 3.

[166] Southern Metropolis Daily 2017. August 1

[167] See "Three Questions of the Second Instance of the Antitrust Law," containing the "International Finance News" (2007-06-27 02nd edition)

between parent companies and subsidiaries that have joint control rights.[168] The latter is shaped as an operator of independent accounting, and with the advantage of not having to pursue profitability, the turnover is low to avoid concentration of the operator.

Thirdly, the penalties were weak, and law enforcement agencies were indolent to exercise their active investigation power and were not transparent for a long time. According to Antimonopoly Law, Article 48: Where the undertakings, in violation of the provisions of this Law, implement concentration, the authority for enforcement of the Anti-monopoly Law under the State Council shall instruct them to discontinue such concentration, and within a specified time limit to dispose of their shares or assets, transfer the business and adopt other necessary measures to return to the state prior to the concentration, and it may impose on them a fine of not more than 500,000 yuan.[169] With fines of 500,000 yuan, it is obviously not enough for the case that the bid value of billions dollars will be acquired. Compared to Facebook merger with WhatsApp case, Facebook has been fined 120 million U.S. dollars for misleading information. China's anti-monopoly fine is too low. However, since the punishment decision of the case that has not been reported in accordance with the law has not been disclosed for a long time, it is impossible for the outside world to determine whether there is a large amount of cases that should be declared in accordance with the law and have not been declared because the penalty is too low. It is also uncertain whether it will be investigated and processed by the Anti-Monopoly Bureau. Therefore, until December 8, 2014, after the Ministry of Commerce announced that Ziguang Company had not filed a prior notification in accordance with the law and got punishment decision, the outside world realized that it would be punished if they did not report, and it would be made public. As a result, in 2015, there was a phenomenon not only in China but also in the world: In the first half of 2015, the Ministry of Commerce received a total of 55% year-on-year increase in the number of anti-monopoly cases reported by operators.[170] In the recent merger and acquisition case filed by the Anti-Monopoly Bureau within 20 months, the maximum amount of the punishment was only 400,000 yuan. It can be seen that the reason why the operator violates the “anti-monopoly law” more easily than the low penalty amount is: the transparency of law enforcement is low. This is because the amount of tax paid by the merger companies is very high. The local anti-monopoly law enforcement agencies are reluctant to punish them for illegal acts committed by large taxpayers. Under the pattern of low law enforcement transparency and low penalties, how can the "Anti-Monopoly Law" not be viewed as a paper tiger by offenders?

In fact, no matter how companies evade anti-monopoly investigations, as long as the Ministry of Commerce wants to investigate merger that are suspected of excluding or restricting competition, they can initiate investigations on their own initiative. If the company does not report or believe that it has not yet reached the threshold for reporting,

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[168] ShaoGeng, Merger control, the seven major problems of the acquisition of Uber, Anti-monopoly Research[J], 2017, p20.
[169] Antimonopoly Law, 2008, Article 48
[170] See Chinanews.com: “MOFCOM: Anti-Monopoly Declaration Received 160 Items in the First Half of the Year, Increased 55%” July 21, 2015

and the Ministry of Commerce does not actively intervene, it will objectively lead to the law being not enforced. According to Article 4 of the State Council Regulations Concerning Concentrated Reporting of Operators, which was promulgated in 2008: Where a concentration of undertakings does not reach any of the thresholds specified in Article 3 of these Provisions, but facts and evidence collected in accordance with the prescribed procedures establish that such concentration effects, or is likely to effect, the elimination or restriction of competition, the competent commerce department of the State Council shall initiate an investigation in accordance with law.[171] The Ministry of Commerce should actively exercise the right to investigate. However, since the "Anti-Monopoly Law" came into effect, the Ministry of Commerce has not yet publicized the case according to Article 4 of the "Regulations of the State Council Concerning the Centralized Declaration Standards for Business Operators," and actively investigate cases that fail to meet the notification standards on its own initiative. Even in the case of the merger of Didi and KuaiDi in February 2015, no such active investigation was taken. When the merger between competitors leads to a sharp increase in market concentration, which may create or strengthen market dominance, the Anti-Monopoly Bureau will attach the conditions for the so-called “maintaining independent operations”. This additional condition allows the merger parties to maintain their independent operations in the form of financial consolidation, and entrust the supervisors to supervise them. The drawbacks of this compromise are obvious. Especially in the 27 cases that have been attached to such conditions so far, it is still unclear to the outside world who is assisting the Anti-Monopoly Bureau to supervise the implementation of additional restrictive conditions and does not know how the daily supervision work is carried out. The details of such supervision work are rarely disclosed, and it is not convenient for the public to supervise them.

To sum up, improving the reporting system legislation, strengthening the punishment, and making the anti-monopoly law enforcement more open and transparent is the future direction of China's merger control. I think that in order to achieve this goal, the number of fines can be increased. For example, the amount of the fine is determined based on the percentage of the turnover of the company participating in the merger. In addition, as an anti-monopoly review agency, the Ministry of Commerce should have a series of matching mechanisms and procedures to regulate the entire process of information disclosure. Including the application materials provided by both parties, the reasons discussed, and the feasible solutions proposed by the reporting party at the time, the details should be further disclosed to the public. In particular, the basis for the decision of the Ministry of Commerce, the calculation method used, etc. should be published on the website for people to inquire. The relationship between government and business and the reasons for government intervention in the market should be fully expressed. This kind of information disclosure should be a process of full disclosure, which not only reflects transparency, but also guarantees the authority of the law, and also helps to establish the prestige of the government.

[171] The State Council Regulations Concerning Concentrated Reporting of Operators, Article 4

4.2.3 The Market Definition and Substantive Standard are Over-Principled and the Definition Method is not Scientific.

According to the Antimonopoly Law, Article 3 The substantive standard is: For the purposes of this Law, monopolistic conducts include (3): concentration of undertakings that lead, or may lead to elimination or restriction of competition.[172] That is to explain literally that any merger or acquisition that may have an impact on competition is a monopoly that should be prohibited. However, any merger may have an impact on market competition. Such substantive standards are too broad and have no practical significance. I think it should be like the EU's entity standards, adding "significantly", which is more conducive to practical operations.

The Anti-Monopoly Law implemented in 2008 did not explicitly set out the relevant market definition, and the Guidelines on the Definition of Relevant Markets promulgated in 2009 was supplemented. Drawing lessons from the advanced legislative and judicial experience of the United States and the EU, the guideline stipulates the concepts, theoretical basis, and defining methods of relevant markets. However, there are still some problems.

First of all, the Guidelines for the Definition of Relevant Markets is relatively broad, stipulating principles and lacking operability. For example, it is stipulated that the extent of SSNIP definition method is 5% to 10%, and different price increases are determined according to different industries. However, there are no specific rules on what kind of price increase determined by different industries, so that there is some uncertainty in the SSNIP test. The guideline emphasizes firstly an "alternative analysis based on product characteristics, functional uses, and prices",[173] which shows that China mainly adopts the product function method to define the relevant market, and only when it is not clearly defined or there is a dispute, the SSNIP test method is used for economic analysis. From this point of view, although China has introduced the SSNIP definition method, it does not regard the SSNIP definition method as the main method of defining the relevant market, but it is used as a supplementary method.[174] For example, in the Marubeni/Gaohong Case, the definition of the relevant market is expressed as "According to the scope of the two parties, operation pattern and characteristics of the goods, supply substitution and other factors, the Ministry of Commerce believes that the import market for soybeans, corn, soybean meal and dried distiller's grains in China is a relevant product market." It can be seen that the SSNIP definition method is still not used in this case and the decision is also questioned due to lack of scientific nature. At the beginning of implementation of the "Anti-Monopoly Law," due to the lack of anti-monopoly enforcement experience and the application of

[172] Antimonopoly Law, Article 3 para. 3
[173] Guidelines for the Definition of Relevant Markets Article 7.
[174] Dai Long: "Relevant Market Definition in Antitrust Law and China's Orientation", Journal of Beijing Technology and Business University, Vol. 27, No. 1, 2012, p119.

the SSNIP method is not mature, China decided to use of a simple, easy-to-use product function definition method is understandable. However, the adoption of this method can easily lead to excessive subjective arbitrariness in the market definition. Nowadays, the anti-monopoly enforcement experience has been accumulated, and the application of SSNIP has gradually matured. It is still not in line with today's anti-monopoly trend to stick to the product function definition method instead of using the more scientific SSNIP definition method.

4.2.4 There is No Specific Standard for Measuring Market Share and Market Concentration Levels.

Article 27 of Anti-Monopoly Law regards to market share and market concentration as important factors in judging whether merger enhance market power. Interim Provisions for the Assessment of the Effects of Concentrations of Business Operators on Competition also focuses on the calculations of market share and market concentration levels. However, the analysis of market share and market concentration only stipulated the influencing factors, the crude introduction of CRn index and HHI index, and did not provide specific quantitative standards and quantitative methods.

Judging from the current laws and regulations, China does not provide quantitative standards for market share. What degree of market share can be considered as not affecting market competition? How much market share may cause the Anti-Monopoly Bureau to pay attention is not reflected in the relevant regulations. Although the CRn Index and HHI Index, which measure market concentration, were mentioned in the Interim Provisions, they have not been specified. What is the range of “n” in the CRn index? How much does the CRn index be considered as a highly concentrated market that requires further competition analysis? What is the threshold of the HHI index? These issues are not explicitly stated. This makes China's anti-monopoly law very uncertain in the application process. In the aforementioned case, the Ministry of Commerce did not reflect the CRn index or the HHI index in the announcement. The legal basis of the case was questioned by the SunJin who is the professor of the University of Wuhan and Director of Competition Law and Competition Policy Research Center.[175] Compared with EU Competition Law, the defects and deficiencies in the China’s anti-monopoly law make it difficult for the merger party to make a reasonable expectation and judgment on the merger control result, virtually increasing the cost and risk of merger, wasting manpower and material resources. In order to make up for the deficiencies of the existing laws, relevant departments must issue supporting regulations. This also facilitates the specific operations of merger control and law enforcement agencies and is conducive to the work.

[175] SunJin, the Speech in The Second Member Congress of the China Law Society Economic Law Research Association, the 2017 Annual Meeting and the 25th National Economic Law Theory Seminar.

4.2.5 The Provisions of Efficiency Defense and Countervailing Buyer Power are Too General and No Specific Provisions Have been Made for Failing Company Doctrine.

Article 27 of the "Anti-Monopoly Law" regards the influence of merger on technological progress as one of the factors that the anti-monopoly law enforcement agency should consider when examining the concentration of companies. Article 28 stipulates that merger with beneficial effects greater than adverse impacts may not be banned. These provisions show that Chinese Antimonopoly Bureau has a positive attitude towards efficiency defense. Article 9, paragraph 1, Article 11, paragraph 1, and Article 12 of the Interim Provisions for the Assessment of the Effects of Concentrations of Business Operators on Competition are clearly defined regarding efficiency, considering efficiency as a factor in the analysis of undertakings merger substantive review. However, China's defense of efficiency is not clear enough. First of all, what standard does China use to measure efficiency, is it a consumer welfare standard or a social welfare standard? Second, what degree of efficiency can be achieved to offset the anti-competitive effect, and what are the applicable conditions for efficiency? Finally, what measures are taken to quantify efficiency? These issues are not reflected in the legislation and cannot effectively assess the efficiency brought by merger.

The countervailing buyer power is introduced in Article 5, Section 2, Items 5 and 7 of the Interim Provisions in China. When it is determined whether the operators of the parties involved in the concentration will create or strengthen the market power, it may consider the ability of the buyer to choose other suppliers, the purchasing power of downstream customers, and so on. Besides, in Article 12 of the Interim Provisions, it is also clear that when assessing the concentration of companies, it is necessary to comprehensively consider whether there is any countervailing buyer power or other factors. It can be seen from this that China recognizes the countervailing buyer power as a review factor, but it is only a few provisions in this regard and it is too general. Specifically, the aspects that need to be examined in the course of measuring the power of the countervailing buyer have not yet been illustrated in the current legislation. What kind of method to measure the power of the buyer has not been embodied in relevant legislation? This may prevent the defense of the countervailing buyer power from being put into practice.

Anti-Monopoly Law does not make explicit provisions on the failing company doctrine. In general, the beneficial effects of merger of bankruptcies are greater than adverse effects, so Wu Hanhong, Professor of Economics at Renmin University of China, the member of the China Foreign Economics Research Association and a senior visiting scholar at the Catholic University of Leuven, believe that Article 28 of Anti-Monopoly Law includes the failing company doctrine.[176] In Article 12 of the Interim Provisions also mentioned that when the Antimonopoly Bureau takes an merger control, they can consider whether the companies participating in merger are "on the verge of

[176] Wu Hanhong, "Discussion on Guidelines for Horizontal Mergers and Acquisitions of Chinese Enterprises", Social Science, No. 5, 2007, p50.

bankruptcy". Although China's failing company doctrine is involved, there are still some problems in the relevant regulations. On the one hand, in the previous Regulations on Merger of Domestic Enterprises by Foreign Investors in 2006, Article 54 specifically proposed that merger of restructured bankruptcy enterprises may apply to the anti-monopoly law enforcement agencies for review exemptions.[177] However, the rule was amended in 2009 and deleted the chapter of "anti-monopoly review", so the bankruptcy defense is now lacking in specific provisions. On the other hand, the issue of how to identify a bankrupt enterprise and what conditions the bankrupt company needs to meet in order to apply for exemption have not been resolved in the legislation.

4.3 Lack of Supervision of Merger of Internet Companies.

No matter in China or the European Union, even with perfect substantive standards and legislation, merger by many Internet companies can still escape the merger control, especially in China. Such companies usually have dominant positions, and if they use the market power to maliciously merge small companies, they will cause great damage to market competition.

First, why do Internet companies evade the merger control? The timing of merger of Internet companies is very important, involving the valuation of trading targets, the distribution of relevant voting rights, and the implementation of corporate strategies. However, the period of merger control is relatively long and the results of the review are uncertain. Especially in China, merger involving Baidu, Alibaba, and Tencent will arise widespread concern and make it difficult to approve. Besides, the illegal costs of evading merger control are very low, and the Anti-Monopoly Bureau is often reluctant to exercise its active investigation power. Therefore, many Internet companies have chosen not to declare their merger. There are many ways to circumvent merger control:

(1) In the way of merger, domestic Internet companies have taken over the target companies in a disguised way through equity exchanges and minority participation. For example, Tencent gives Ezun and Pat business to JingDong for equity exchange; Ctrip and Baidu converted shares aim to actually control Qunar.[178]
(2) The turnover of Internet companies is often difficult to calculate. The calculation of the turnover of different Internet companies is often different, there is no uniform standard. Many Internet companies have a high market share and high value commercial data, but their turnover is less than the declared standard. Unlike

[177]Article 54: If an acquisition is characterized by any of the circumstances set forth below, any of the parties to the acquisition may apply to the Ministry of Commerce and the State Administration for Industry and Commerce for exemption from examination:
(1) it can improve the conditions for fair market competition;
(2) it will restructure a loss-making enterprise and ensure employment;
(3) it will introduce advanced technology, bring in management talent and can enhance the international competitiveness of the enterprise; or
(4) it can improve the environment.

[178] China Economic Research Network, Jingdong's shareholding structure exposure: Tencent sits in the position of the largest shareholder of Jingdong, 2017. (https://www.sohu.com/a/138455846_475873)

traditional unilateral markets, the nature of the Internet companies determines that it has the characteristics of a bilateral market or a multilateral market. Internet companies do not necessarily follow the pricing rules of traditional unilateral markets, so their price structure is asymmetrical. In addition, Internet platform operators may also adopt cross-subsidy when pricing, that is, providing free services to the market, such as consumers, and subsidies from the other side of the market, such as advertising users, service providers and other advertising costs. These practices make the market area and the operating costs of the Internet platform have uncertainties. For example, Meituan is a group-buying website established in 2010. In 2018, the transaction volume exceeded US$60 billion.[179] However, because Meituan is a platform to provide group-buying services, a large amount of transaction funds is owned by third-party merchants, and its own turnover is not high. Therefore, when evaluating the market power, new standards need to be adopted, such as user usage, network effects, and the ability to obtain competitive data.

(3) Internet companies have weakened the dominant position of acquiring companies by expanding the definition of relevant markets. For example, the above mentioned DiDi/Uber(China) case is a typical case.

(4) When it is determined whether there is a competitive relationship or a relationship between the upstream and downstream parties in the merger, or that the parent company has an upstream-downstream relationship with the acquired company. Internet companies choose not to talk about companies that directly participate in transactions that have a competitive relationship with their actual controllers. For example, Alipapa/HangSheng Electronic Ltd case, which had caused widespread concern and was once thought to lead to more off-site capital allocation and ultimately fueled the 2015 stock market crash.[180] On April 1, 2014, Ma Yun Holdings' Zhejiang Rongxin Company intends to acquire 100% of Hang Seng Electronics' shares in cash. The total transaction amount is approximately RMB 3.299 billion. Zhejiang Rongxin Co., Ltd. was established in 2003. Ma Yun owns 99.14% of the Rongxin's shares. The rest of the shares are held by Xie Shihuang, the managing director of Ali Capital and the vice president of Alibaba Group. However, Zhejiang Rongxin has no equity relationship with Alibaba Group. Zhejiang Rongxin and its related parties are not engaged in the business of competing with Hang Seng Electronics' core business, and there is no upstream or downstream relationship. But in fact, Ma Yun is the founder and chairman of Alibaba. At that time, Alibaba Cloud's business had a potential competitive relationship with the financial cloud service developed by Hang Seng Electronics. The main competitor of Hang Seng Electronics, Jin Zheng Co., Ltd., also relied heavily on Alibaba Cloud business and even YuEbao and Zhaocaibao business.[181]

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[179] Data Center of China Internet, China Netizen Network Takeaway Service Usage Survey Report (2018), p53

[180] See "Six questions on the unconditional approval of Ma Yun's acquisition of Hang Seng Electronics by the Antimonopoly Bureau of the Ministry of Commerce". In September 2014, the Tongji Intellectual Property and Competition Law Research Center website was published.

[181] Caixin.com reporter Liu Caiping's exclusive report on September 20, 2014, "The Ministry of Commerce unconditionally approved Ma Yun's acquisition of Hang Seng Group"

After Ma Yun's acquisition of Hang Seng Electronics, it will naturally weaken the competition between Jin Zheng and Hang Seng Electronics. In addition, Hang Seng Electronics repurchased the Jimmy Fund and eventually took over by Alibaba Group's Ant Financial in April 2015, bringing the two fund sales platforms with competitive relationships into one. Even in upstream and downstream cooperation, Hang Seng Electronics and Alipay's cooperation in payment security began before the merger was approved. Because Hang Seng Electronics is almost the largest IT supplier of traditional financial institutions, Ma Yun's acquisition of Hang Seng Group is equivalent to Alibaba's indirect control of Hang Seng Electronics, which is equivalent to mastering the back door of most financial institutions.[182] Unfortunately, because the review process lacked transparency and the review decision did not openly accept social supervision, the Ministry of Commerce failed to pay due attention to the above-mentioned upstream and downstream cooperation pattern that led to the stock market crash in China in the merger control in 2015. The interests of Chinese stockholders and the stock market have suffered far greater losses than the 440 million fines of Hang Seng Electronics.

Second, whether in China or the EU, the existing merger control substantive standards are difficult to cope with large companies to eliminate the threat of competition through the merger. Big Internet companies are accustomed to plagiarism or merge to eliminate the competitive threat caused by start-up companies.[183] The Wall Street Journal reported that Facebook has an early bird system that uses an internal database to monitor potential startups. They believe that these companies are potential competitors with threats. Therefore, they adopt a series of measures to observe and engage in acquisitions. If the acquisition is unsuccessful, they will launch similar services and rely on the resources of giants to suppress each other. This practice has long been common in Silicon Valley; Facebook is not the only company to take such a practice. In recent years, Silicon Valley big companies have acquired a large number of start-up companies, including Google, Amazon and so on. As long as it is a technology-potential company, application, and service, it will be considered in the pocket, such as very famous Instagram and WhatsApp. Large companies tend to track and monitor potential competitors, including their application data, such as monthly active users, mentions, sharing, participation, etc. This is what Facebook's Early Bird system does. Prior to launching the Story feature for Instagram, Facebook used Onavo Protect to detect Snapchat's user usage frequency and usage time, and implemented an "anti-Snap" strategy.[184] Eventually integrating Story into Instagram, Snapchat's number of users began to decrease. In addition, Onavo Protect also played an important role in Facebook's acquisition of WhatsApp. For start-ups, accepting big companies' acquisitions is an option on the one hand. It is true that large companies can use

[182] Xu Yan, Securities Times, Ma Yun's new progress in the acquisition of Hang Seng: ongoing merger control, 2014.
[183] See The Economist [J], p1, 2018.06.
[184] Xu Guangyao, "Study on the Classical Jurisprudence of the European Community Competition Law", Wuhan University Press, Third Edition, May 2016, p12.

resources and platforms to advance project progress. Entrepreneurs may abandon their worries after the company is acquired, and build products on bigger and better platforms. Also, start-ups can hardly compete with big companies with their own resources. Under the help of big companies, they can obtain more abundant resources and channels. Big companies have thousands of outstanding engineers who can rapidly evolve technologies or products to realize their potential as soon as possible and bring products and services to market and serve users.

The same situation also happened in China. This year's PLAYERUNKNOWN'S BATTLEGROUNDS (PUBG) is popular around the world. In the 10 months after the launch, it brought $4.4 billion in revenue to game developer BlueHole studio.[185] At the beginning of the PUBG game release, Tencent, the world's largest game company, issued the game "Glorious Mission" by copying PUBG's game settings, operating modes, and weapon settings and so on. At the same time Tencent also started the acquisition of Blue Hole. At present, Tencent already owns 5% of BlueHole studio's shares and becomes the second largest shareholder.[186] Meituan/Mobike case is the same story. On April 3, 2018 Meituan acquired Mobike for $2.7 billion. As a company just two years old, Mobike has a 56.6% market share in the shared bicycle market.[187] However, such large-scale merger was completed without any anti-monopoly declaration. Because start-up companies like Mobike had very low initial turnover, Mobike even lost RMB 600 million in 2017.[188]Therefore, this merger does not have to file notification for merger control. This means that this huge amount of transactions is not regulated by the anti-monopoly law. However, but whether this kind of M & A will restrict the market competition? In my opinion it will.

In today's China, all daily activities are inseparable from Ma Yun's Alibaba and Ma huateng's Tencent. Mobile payment has Alipay and WeChat; the take-away app has Mei Tuan and Hungry; online shopping has Jindong and Taobao. Almost all Internet companies related to food, clothing, housing, and transportation belong to Alibaba and Tencent. This situation is tantamount to oligopoly. It is a good thing for users that products and technologies are becoming more popular, but for start-ups, it's a disaster. For the entire technical field, gradually concentrated in large companies, the market will gradually lose balance and the vitality of competition. If you continue to implement the purely business threshold, such large companies will increasingly have more and more merger for startups. If it is difficult for a small company to grow into a large company independently, the existing large companies will be hard to be threatened by competition, and technological innovation and progress will also be limited. This is a monopoly that eliminates market competition. Internet company super platform operators, to acquire or seize new technologies, will further enhance their market dominance. Therefore, for those Internet platform operators with a certain scale, when

[185] Announces Game Market Data for 2017 Based on SuperData, 2018, p33
[186] Announces Game Market Data for 2017 Based on SuperData, 2018, p41
[187] Meituan Dianping prospectus (Hong Kong), 2018, p62.
[188] Meituan IPO is coming: the acquisition of Moby lost 15 million per day, Securities Times Network, 2018, p6.

they purchase start-ups with the relatively low turnover but high value, the government may consider raising the threshold of merger.[189] The Anti-Monopoly Bureau should investigate such merger, because in the absence of declarations, insider trading, price increases, and other actions that affect competition are very likely to occur.

4.4 Suggestions for China's Merger Control and Substantive Standards.

4.4.1 The Professional Level of Anti-Monopoly Law Enforcement Agency should be Strengthened.

First of all, in accordance with Articles 9 and 10 of the Anti-Monopoly Law, the Anti-Monopoly Guidance Coordination Department and the Anti-Monopoly Law Enforcement Agency have been set up. China's anti-monopoly law enforcement agencies are responsible for all kinds of monopolistic violations: price monopolies in the market are investigated by the National Development and Reform Commission, and operator concentration are supervised by the Ministry of Commerce's Anti-Monopoly Bureau. In addition to the above two cases, the State Administration for Industry and Commerce is responsible for all kinds of other monopoly restrictions that undermine competition on the market. The idea behind this system design is that all departments perform their duties and assume their responsibilities, forming a situation in which multiple law enforcement agencies co-exist and separate enforcement. This situation will overlap executive power, waste of law enforcement resources, and reduce the efficiency of law enforcement. It may even happen that when law enforcement is profitable, the ministries compete for enforcement power; when law enforcement is not profitable, the ministries are reluctant to take responsibility.[190] On March 13 this year, the State Council's institutional reform plan that attracted much attention was submitted to the 13th National People's Congress for discussion. According to the plan, the responsibilities of the anti-monopoly functions of the three ministries——the State Development and Reform Commission, the State Administration for Industry and Commerce and the Ministry of Commerce, and the Anti-Monopoly Committee of the State Council——were consolidated and incorporated into the newly established State Administration for Market Regulation (SAMR). This move has great benefits for anti-monopoly law enforcement. In the future, China's unified anti-monopoly law enforcement power will also help to implement anti-monopoly regulations better than before.

[189] Huang Jin "Regulating the Internet Platform Competition Behavior, the scale cannot be unfairly profitable" Chinese Academy of Social Sciences,
[190] Xiao Taifu. Legal practice of corporate mergers and acquisitions[M]. Beijing: Mass Press, 2005: p22-23

Secondly, on the issue of anti-monopoly law enforcement officers, the integration of the three anti-monopoly law enforcement agencies will lead the re-establishment of anti-monopoly agencies. Through the complete integration of law enforcement agencies and law enforcement personnel, an efficient team of talents will be formed. China's Anti-Monopoly Law does not stipulate the requirements for the selection of anti-monopoly law enforcement agencies personnel and their loyalty obligations. Due to the anti-monopoly law exercises need professional skills, this requires high professional knowledge, and professional skills for law enforcement personnel, and generally requires the knowledge of economics, law, and sociology. All countries and regions in the world, while setting anti-monopoly law enforcement agencies, often impose stricter regulations on the selection of their staffs. To ensure the professionalism, correctness, and stability of law enforcement, the economists and jurists of the law enforcement agencies should each have a certain percentage, reflecting the characteristics of expert enforcement. Also, in order to ensure the fairness and independence of anti-monopoly law enforcement, many countries also provide that law enforcement personnel cannot serve in the company or other government departments at the same time. This can prevent law enforcement officers from getting involved in the business sector or the political world and causing their enforcement to become biased and unfair.[191] China should improve the admission standards of anti-monopoly law enforcement personnel as soon as possible and strictly require professional knowledge.

4.4.2 Improving the Substantive Standard Legal System of Merger in China.

A good merger regulation system can promote the development of merger while maintaining effective market competition. The merger regulation system is not a system that restricts merger of companies, but a system that promotes merger of companies.[192] China's current Anti-Monopoly Law and its ancillary systems do not form a complete undertakings merger control law system on entity standards. It is necessary to further improve relevant laws and regulations and build a complete legal system. Drawing on the advanced experience of the United States and the European Union, China can also form a relatively complete legal system consisting of laws, guidelines, and regulations. The Anti-Monopoly Law only establishes the general legal structure for the merger control of enterprises, and makes general and principled provisions concerning the review of merger. However, there are no detailed operating rules. The most effective way to solve this problem is to implement the specific operating rules for merger control through the enactment of the Merger Guidelines. Since China is in the initial stage of anti-monopoly enforcement and needs certainty over flexibility, it is appropriate to adopt the traditional “five-step analysis method”.[193] Five-step analysis method is: first,

[191] Zhu Wuzhen, Analysis of the entity standards for centralized management review by operators [j] Southern Today, June 2009, p174.
[192] Xu Ningning. Research on Antitrust Laws of Transnational Mergers and Acquisitions of American Enterprises[D]. Beijing: University of International Business and Economics, 2006
[193] Aurice. E. Stucke, Behavioral economists at the gate: antitrust in the twenty-first century[J]. Loyola University

define the relevant market and measure market share and market concentration; second, analyze the anti-competitive effect of merger; third, analyze the market entry; fourth, evaluate the efficiency of merger; fifth, the analysis on the verge of bankruptcy enterprises. Adopt this method to ensure the predictability of the law. Therefore, it is necessary to include the following sections in the guide. The main content: define the relevant market, measure the market share of the companies and the market concentration levels of the industry, then analyze the potential anti-competitive effects of merger, and examine the factors that offset the anti-competitive effects, including the analysis of the offsetting effect of market entry, efficiency defense, the existence countervailing buyer power and bankruptcies. In addition, since the merger control involves a large number of economic analysis, both the analysis method and the required data are very complex. If the Antimonopoly Bureau does not publicize the data and analysis methods in each case, companies do not know the specific methods of merger control, and it is impossible to analyze whether merger violate the anti-monopoly law. Therefore, it is necessary to further improve the case guidance system. The guiding case also serves as part of the legal system of the merger control system. It will help make the merger control more operational and predictable, so that the results of the review will be widely recognized.

4.4.3 Improving the Substantive Standard Analysis System of Merger in China.

4.4.3.1 Definition of the relevant market

Different from the trend of "de structuralism" reflected in the United States Horizontal Mergers and Acquisition Guide, China's anti-monopoly regulation of merger of enterprises as well as the EU embodies "structuralism". Therefore, the definition of the relevant market still plays an important role in China's merger control, and we need to further improve China's relevant legislation in this area.

First, in the Merger Guide, we further refined the relevant market definition to make it deterministic and operational. In order to increase the certainty of the relevant market definition, the selection of price increases during SSNIP testing should be appropriately determined. The overall price increase is now 5% to 10%, and the specific price increase applicable to different industries should be further specified. For example, the price increase of the power industry is 6%, that of the apparel industry is 5%, and that of the oil industry is 9%.[194] The determination of price increases in different industries should be based on various factors such as the market competition conditions and profitability of the industry. Of course, price increases need to be moderately adjusted within a certain period or under specified conditions. For the aforementioned Marubeni/Gaohong case, the price increase of the soybean trading industry can be set in advance, and then use the SSNIP definition method to define the relevant market.

Chicago Law Journal,2007,38: p545-591.

[194] Ding Maozhong, Research on the definition of relevant market in the implementation of anti-monopoly law, Doctoral Dissertation of East China University of Political Science and Law, March 2010, p169

Second, gradually reduce the reliance on product function method, and pay attention to the application of SSNIP definition method. The product function method is simple and easy to operate, but its definition of the relevant market has a strong subjective arbitrariness. The process of defining the relevant market by the SSNIP definition method is a strict economic analysis and argumentation process, which can compensate for the inherent defects of the product function definition method. At present, the SSNIP method is widely adopted by all countries in the world, and it is the most popular method of defining the relevant market in the world.[195] China should also increase the status of SSNIP method, making it as a major method of defining the relevant market, rather than a complementary method. It is particularly necessary to introduce the surrogate model of the SSNIP method—the critical loss analysis method. I have mentioned this method before. The critical loss analysis mainly relies on two relatively data which are easy to obtain: the initial price and the average variable cost. The critical loss analysis method has low requirements for data and is easy to calculate. It is a good way to define the relevant market. In the Marubeni/Gaohong case, it mainly involves the analysis of the soybean trade market. According to the critical loss analysis, the critical elasticity value can be calculated by using the initial price of soybean and the average variable cost to calculate the marginal contribution ratio "m".[196] The critical elasticity value can be calculated and compared with the self-demand elasticity value to define the relevant market. The calculation is very simple. The relevant market definition is still important in today's China, and the SSNIP method is still the main method of definition. However, with the development of the economy and anti-monopoly law enforcement experience, SAMR should consider the "de structuralism" UPP method to review the merger of different product companies without defining the relevant market.

Although SSNIP is widely accepted, it has two shortcomings in estimating the actual loss of price increase: first, there is no uniform standard for the increase; second, when the product differentiation exists, the two commodities are not completely replaced, and the result is uncertain. Based on these two shortcomings, Joseph Farrell, chief economist of the US Federal Trade Commission, and Carl Shapiro, chief economist of the US Department of Justice, proposed an alternative approach, the upward pricing pressure, referred to as the UPP method.[197] This method circumvents the two shortcomings of the critical loss analysis, does not require a uniform price increase limit, but judges the unilateral price effect based on the value of the transferred sales, and uses the Diversion Ratio to make a more rigorous market definition. Through the total income of two merged companies that sell differentiated products, it is judged whether a price increase will lead to profitability of the company and thus adversely affect

[195] Alex Nourry, Clifford Chanee, EU Merger control: application and Recent Development [J] Competition Law, April 2003.
[196] The critical loss analysis is expressed mathematically as: E=1/(m+t). "m" is the marginal contribution rate and "t" is the minimum price growth rate.
[197] See: Joseph Farrell, Carl Shapior. Antitrust Evaluation of Horizontal Mergers: An Economic Alterative to Market Definition [J]. The B.E. Journal of Theoretical Economics. Vol 10. 2010, p21

market competition. The UPP method mainly uses three data, Diversion Ratio, Gross Margin and Efficiency. Diversion Ratio means that if the company that sells A goods and the company that sells B goods are the two companies involved in the merger, if the price of A goods rises, the ratio between the sales loss of A goods and the profit of B goods is the Diversion Ratio.[198] Using these three rate, by calculating the extra profit from the sale of A commodity at a high price, and the additional profit that some customers purchase B commodity due to the price increase of A commodity, then, compare these profits with the profit of A goods before the merger, and calculate whether the price increase of A commodity can make a profit. If the value of the Diversion Ratio is small, there is little chance of a significant unilateral price effect. If the Diversion Ratio is higher, the profit increases, indicating that the possibility of a unilateral effect is greater. The UPP method does not need to rely on traditional market definition or calculation of market share and market concentration levels, and has great potential to replace traditional market definition and market concentration measurement methods. As long as the data required by the model can be collected, the anti-monopoly law enforcement agency can directly analyze the competitive effect of the merger of differentiated product manufacturing enterprises. Moreover, the UPP method requires less analog data and lower cost than SSNIP test.[199] At present, China still lacks the legal basis of the UPP method, but with the improvement of anti-monopoly legislation and the development of law enforcement, there will be broad prospects for application in China in the future.

4.4.3.2 Improve the analysis method of market share and market concentration

In order to increase the legal certainty and reliability, law enforcement efficiency and transparency, and reduce enforcement costs, China should formulate quantitative standards and quantification methods for market share and market concentration levels in the Merger Guidelines. The United States and the European Union have accumulated a great deal of anti-monopoly legislation and advanced law enforcement experience. Their calculation method of market share and market concentration is of great significance to China. Generally, it is only necessary to calculate the market sales of the company and the entire industry, and then compare the two. The key is that the quantitative standards for market share should be specified. On the one hand, it is necessary to prevent enterprises from having strong market power so that to harm competition. On the other hand, we must take into account the fact that China is still in the primary stage of the market economy and the degree of industry concentration is not high. Therefore, the critical point of market share should be considered carefully. Zhu Zhen Wu who is the professor of South-Central University for Nationalities believes that the market share is set at 20% more in line with China's national conditions.[200] Wang Xiao Tong who is Professor and Ph.D. Tutor of Chinese Academy

[198] See: Joseph Farrell, Carl Shapior. Antitrust Evaluation of Horizontal Mergers: An Economic Alterative to Market Definition [J]. The B.E. Journal of Theoretical Economics. Vol 10. 2010, p23

[199] Ding Maozhong: “Research on the Definition of Relevant Markets in the Implementation of Anti-Monopoly Law”, Ph.D. Thesis, East China University of Political Science and Law, March 2010, p169.

[200] Zhu Wuzhen, Analysis of the entity standards for centralized management review by operators, Southern

of Social Sciences believes that a company has 35% or more market share should be considered as the dominance position. Other scholars Mu Yapping and Xiao Xiao Yue believe that 20%-35% is more appropriate as a criterion for defining market share, but it should not be applied to monopoly industries such as petroleum, telecommunications, and finance. In my opinion, taking 20%-35% as a monopoly critical interval is a combination of legal certainty and flexibility, which is in line with China's current economic development status. According to this standard, in Marubeni/Gaohong case, in 2012, Marubeni exported approximately 10.5 million tons of soybeans to China, and China imported a total of 58.3 million tons of soybeans. The company's market share is about 18%, which is lower than the threshold of 20%-35%, and may be presumed not to affect market competition. The Ministry of Commerce's conclusion is the opposite. Of course, market share is not the only factor that determines whether to limit merger, but other factors should also be comprehensive analyzed.

In practice, it is not appropriate for China to place too much emphasis on the factor of market share. The market structure reflected by market share only has a one-sided nature, which is less scientific and comprehensive than market concentration levels. Therefore, China should introduce market centralization levels measurement, further refine the quantitative standards and quantification methods of market concentration levels, and rely on market concentration levels to reflect the market structure in future law enforcement. The method of measuring market concentration levels usually has CRn and HHI. In view of the many deficiencies of the CRn index mentioned before, the HHI index has been more and more widely used in the world in recent years. I believe that China should introduce the HHI index and build a "safe harbor" system based on it. Yu Donghua and others learned from the US and EU merger control substantive standards for merger, combined with China's societal conditions, and provided quantitative standards for "safe harbor". After the merger, if the HHI index below 1000 is a low levels concentration market. Generally, it does not have anti-competitive effect and does not require further competition analysis. After the merger, if the HHI index between the 1000-2000, the market is considered as moderately level concentration. If the increase is less than 200, it is generally considered that no further analysis is required, but if the increase exceeds 200, the next step of competition analysis is required. If the HHI index is higher than 2000, which is a highly concentrated market. If the increase is less than 100, no further analysis is required, but if the increase exceeds 100, the case need to enter the next competition analysis.[201] Such a "safe harbor" setting not only increases the predictability for companies, but also enhances transparency of anti-monopoly law enforcement agencies and reduces enforcement costs.

4.4.3.3 Analysis of potential anti-competitive effects of merger

(1) Unilateral effect analysis

Today, June 2009, p174.

[201] Yu Donghua, Qiao Yue, Study on Safe Harbor Rules in Anti-Monopoly Regulation of Horizontal Mergers and Acquisitions, Industrial Economy Research, Vol. 3, 2010, p73.

China's Interim Provisions for the Assessment of the Effects of Concentrations of Business Operators on Competition has made explicit provisions on unilateral effects. However, there are no specific regulations on how to analyze and how to operate. China can learn from the EU's practice and analyze different type of unilateral effects. Also list some factors that can easily induce unilateral effects and choose a unilateral effect assessment method that suits China's reality situations. China can consider the unilateral effects from two aspects like the United States: on the one hand, it is caused by product differences; on the other hand, it is caused by the production capacity of enterprises. Then comprehensive analysis of the unilateral effects of different factors, including merger companies have a large market share, merger parties have close competition relationship, the buyer is not easy to switch products or service providers, in the case of rising prices, other competitors cannot increase the supply of products, Merger companies may adopt strategies to limit the output of other competitors or prevent new companies from entering and so on. As for the unilateral effect assessment method, China should choose the best method that suits the actual conditions in the country, and should not be rushed to blindly pursue the new method. China's anti-monopoly work is in its infancy and lacks a sound anti-monopoly law enforcement system and law enforcement experience. However, with the development of computer technology and statistical technology, China can gradually adopt the merger simulation method. As for the UPP test method of the U.S. Merger Guideline, due to the current deficiencies in China's current institutional environment, law enforcement experience, and law enforcement capabilities, it is temporarily unable to accept the flexible UPP test method. However, with the continuous improvement of China's anti-monopoly legal system, continuous accumulation of law enforcement experience, and continuous improvement of law enforcement capabilities, the UPP test method will have a large application space in the China.

(2) Analysis of coordination effects

The Article 4 (4) of the Interim Provisions also makes a principled provision for the coordination effect. Similarly, the specific analysis framework and considerations for the coordination effect have not been further stipulated, and EU Competition laws provide experience for China. China's anti-monopoly law enforcement agencies can also analyze the coordination effect from three aspects: first, the conditions to achieve coordination effects; second, deterrence mechanisms; and third, the outsiders respond. In the analysis of coordination effects, the following factors are mainly considered: high entry barriers in the industry, equal market share of enterprises, similar structural characteristics of various companies, high homogeneity of products, stable demand, transparent prices, multiple market connections among enterprises, and have coordination effects record and so on.

4.4.3.4 Anti-competitive effect counteracting factors

(a) Market Entry Analysis

For the analysis of market entry, although relevant laws and regulations of our country have made more regulations, it is still necessary to further refine the relevant regulations, such as the requirements for timeliness, possibility, and adequacy of access. In addition,

China may consider adopting the SSNIP test to assess market entry. Assuming a 5% increase in commodity prices, assess how many new companies have entered the market over a period of time (usually two years).[202] If there is less entry of new companies during this period of time, it means that the monopolist can maintain 5% of the excess profits and there are barriers to entry. On the contrary, if a large number of new companies enter within the period, it is assumed that the monopolist cannot maintain 5% of the excess profits, indicating that the barriers to entry are small and the market is relatively easy to enter. When assessing market entry, the SSNIP test can be adopted, and market entry can be comprehensively analyzed based on the possible entry barriers in the market. Only the market entry has timeliness, possibility, and adequacy requirements can offset the effect of merger anti-competitiveness. In the Marubeni/Gaohong case, the Ministry of Commerce only qualitatively analyzed the barriers to market entry and has not conducted quantitative analysis. However, this case can be used to assess market entry by adopting the SSNIP test method and make a detailed quantitative analysis to make the enforcement agency's decision more convincing.

(b) Efficiency defense

Because the rules of China's efficiency defense are vague, further clarification and refinement of efficiency defense standards, efficiency application conditions, and efficiency assessment methods are the top priorities of China's anti-monopoly legislation and law enforcement. According to Article 1 of the Anti-Monopoly Law, we can see that China's anti-monopoly is not only to protect the interests of consumers, but also to safeguard social and public interests, and to promote economic development. Therefore, China's judgment on merger is more inclined to the total welfare standards. Because China currently has a small-scale enterprise and economy, it is very important for Chinese enterprises to become bigger and stronger, form scale economies, increase the international competitiveness of enterprises, and strengthen national economic competitiveness to cope with the increasingly open international economic environment. Therefore, it is appropriate for China to adopt the social welfare standards. Although Article 9 of the Guiding Opinions of the Anti-Monopoly Bureau of the Ministry of Commerce on the Declaration documents of Concentration of Business Operators contains conditions for the application of efficiency defenses, there are no specific provisions have been made. In this regard, China can learn from European Union's practice. The requirements for acknowledgeable efficiency defenses must be specific, timely, verifiable, and make specific and explicit provisions on related factors.[203] For the specific assessment of efficiency, in view of the short history of anti-monopoly in China, the sequential decision method described above can be selected. That is, a batch of merger can be directly approved through a threshold, and a batch of merger can be rejected directly. The rest cases enter case-by-case analysis. Specifically, the anti-monopoly law enforcement agencies can carry out the case-by-case analysis of merger in three phases, namely screening testing, qualitative analysis of efficiency, and

[202] Xiaoyan Wang, Antitrust Issues in Business Combinations, Beijing: Law Press, 2006, p58.
[203] Yu Donghua, how to Introduce Efficiency Defenses in China M&A Evaluation Review, Economist, March 2012, p57.

quantitative analysis of cost-profits. In the aforementioned case, the Ministry of Commerce did not say anything about the efficiency that Marubeni might acquire from Gao Hong. In fact, it is entirely possible for Marubeni to integrate the supply and marketing channels through this acquisition to achieve production efficiency, configuration efficiency, and reduce soybean prices. Therefore, it is necessary for the SAMR to adopt a case-by-case analysis method to analyze the cost efficiency of this merger.

(c) The countervailing buyer power

Since China has a positive attitude towards the countervailing buyer power, SAMR should make clear and specific regulations on it. The provisions of the EU's countervailing buyer power are more comprehensive. China can learn from the EU's practices, use the countervailing buyer power as a factor to offset the anti-competitive effects, and measure various factors of the buyer's power. For example, the anti-monopoly law enforcement agency can compare the degree of buyer concentration and seller concentration, examine whether there is a major obstacle to the buyer to choose an alternative supplier, assess the buyer's dependence on the supplier's product. Also, when strong and weak buyers coexist, whether the supplier give discriminate price to weak buyers and whether the buyer has a diversified supply. In addition, the buyer's power can be measured by using the buyer's market concentration HHI index and supply elasticity.

(d)Failing company doctrine

With the gradual development of the market economy in China, the bankruptcy phenomenon has become more and more common. China should pay enough attention to the defense system of bankrupt companies, and it is necessary to make clear and specific regulations on the system. The legislature may add provisions for the defense of bankrupt companies in Article 27 of the Anti-Monopoly Law, and make specific provisions on how to determine the application conditions for bankruptcies in the Merger Guide. When improving the relevant provisions of the bankruptcy firm's defense system, it is necessary to combine China's national conditions, and in particular, the concept of "bankruptcy" must be used in conjunction with China's "Bankruptcy Law" to prevent the misuse of the system. China currently recognizes the defense of impending bankrupt companies in merger, but it should adopt a cautious approach to its use. The use of impending bankruptcy defenses should meet certain conditions: (1) As soon as the bankrupt companies are not acquired by other companies, they will be forced to leave the market in the near future due to the severe deterioration of their financial conditions. (2) Acquiring companies are already the enterprises that have minimal harm to competition; (3) They cannot be successfully reorganized under the Bankruptcy Law.[204]

[204] Shi Jiansan, Reflections on the Perfection of China's Managers' Concentration in the Substantial Review of the Defense System, Law, No. 2, 2009, p105.

Chapter V: Conclusion.

In the process of continuous development of the market economy, there are more and more merger in the world. We need to rationally look at the double-sided effects of merger. On the one hand, we should encourage and support those mergers that bring efficiency; on the other hand, we should crack down and restrict merger that damage the market. In this process, how to define which ones are efficient merger and which are merger that impair market competition, and the standards of anti-monopoly substantive review are important criteria. Therefore, In the Chapter II of this thesis, I mainly analyze the concept and types of merger and the relationship between transnational mergers and anti-monopoly through comprehensive and general methods. The purpose is to present the research background of this paper and emphasize the necessity of anti-monopoly regulation for merger. After that, through the inspection of EU Merger Control system, we can find that: with the continuous development of economic theory and the enrichment of anti-monopoly law enforcement experience, EU's merger control substantive standards have gone through Market Dominance standards to SIEC standards. The anti-monopoly system has gradually matured, and law enforcement has gradually improved. Through the study of the EU merger control system, I found that the existing merger control substantive standards still have shortcomings: with the development of emerging areas, many mergers between companies with high-value business information, patents or key technologies, their turnover cannot reach the turnover threshold. However, such mergers may impede competition. Therefore, I have asked research question of whether the pure turnover threshold is valid for such companies. Through research on related consultations and feedback from various organizations, I hold the view that there is no need to revise the turnover-based threshold at this stage. However, if such cases arise in the future, it is possible to appropriately reduce the turnover requirements in these areas or introduce other supplementary standards through legislation. In addition, I have proposed some other methods to solve this problem: (1) national laws usually can be adapted more swiftly to deal with unintended consequences of legislative changes than European laws. Therefore, optimizing the referral system and member state's merger control system will more effectively solve the problem of little turnover/high value companies. (2) Holding consultations of related interest groups, competitors in the industry and consumers is also an effective way to judge whether merger will affect competition.

By comparing the EU's relevant legislation on merger control, I have studied China's merger control legislation. The merger control in China is still in its infancy. In the Chapter IV, I raised research questions: Is China's merger control substantive standard effective? Is there any flaw in China's anti-monopoly review of merger? What should be done if it exists? And found out the shortcomings by analyzing the current laws on anti-monopoly substantive review in China: the relevant legislation is too principled and lacks specific and clear implementation rules; There is no requirement to use SSNIP, HHI index, CRn and other methods to define relevant markets, market shares and

market concentration levels; The fines resulting from the company’s merger reaching the turnover threshold but not reporting to the Anti-Monopoly Bureau are too low; the regulations are more crude, the enforcement is insufficient, the exemptions are more and arbitrary, and the administrative enforcement power is too large; The Anti-Monopoly Bureau is not transparent about the review process of undertakings concentrations, and the method adopted is not known. In particular, the criteria for “restricting and eliminating competitive effects” are too broad. Therefore, improving China's merger control system needs to learn from the EU's successful experience. Through the combination of legal and economic analysis methods, the merger control substantive standards of merger are studied in depth. In response to these problems, I think: (1) substantive standards should be changed to SIEC standards. (2) the SSNIP test, HHI index, CRn must be used in the review of the undertakings concentrations by the Anti-Monopoly Bureau, and the review process and the reasons for the decision are made public. (3) the illegal cost should be increased and the number of fines should be increased. (4) according to China's national conditions, we should establish an effective undertaking merger control system which is constituted by Antimonopoly Law, Merger Guidelines and case guidance system. China may consider establishing a public announcement system for merger control of foreign merger. Referring to the US merger legal procedures, the stakeholders are informed about the merger control by establishing a public announcement system for anti-monopoly review of merger. Once the interested party has sufficient evidence to believe that the merger control is unreasonable or illegal, the interested party has the right to file a request for opposition and substantive examination. The substantive examination procedure is initiated by the applicant within the statutory time limit of the announcement, thereby enhancing the transparency of the merger control process for foreign merger. (5) Analyzing the definition of relevant markets, market share and market concentration, the potential anti-competitive effects of merger, market entry, merger efficiency, countervail buyer power, and bankruptcies defense, etc., to make the corporate merger control legislation more operational. China's merger control substantive standards have been effectively implemented, and the decisions of the anti-monopoly law enforcement agencies can be more persuasive and fair. Finally, facing the challenges posed by the development of emerging industries, China and the European Union need to improve the substantive standard of merger control. Whether it is to introduce supplementary standards or raise the threshold for merger, both China and the EU need to take measures to prevent the monopoly of large companies. Only in this way, market competition can be effectively protected.

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Case No. M.308 KALI + SALZ/MDK/TREUHAND

Case No COMP/M.6142 - AVIC / PACIFIC CENTURY MOTORS 5、

Endemol Entertainment Holding BV v Commission (T-221/95) [1999] E.C.R. II-1299.

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