



FACULTY OF LAW

Lund University

Xinyu Hu

Defining the Relevant Market of Horizontal
Mergers under the Anti-Monopoly Law in
China —What Can China Learn from the EU?

JAEM03 Master Thesis

European Business Law

30 higher education credits

Supervisor: Björn Lundqvist

CONTENTS

Chapter 1	Introduction	1
1.1	Research Questions	1
1.2	Structure of the Thesis	1
1.3	Methods of Research.....	2
1.4	Historical Development of the Chinese Competition Law	4
1.4.1	Pre 2008 the establishment of the AML	4
1.4.2	New period of Chinese Competition Law within the Framework of the AML	6
1.4.3	EU Competition Law as an Important Reference for the AML	8
Chapter 2	Defining the Relevant Market in the Light of EU	13
2.1	introduction	13
2.2	the definition of the relevant market in EU	14
2.2.1	The relevant product market.....	16
2.2.2	The relevant geographic market	23
2.3	EU Experiences on Defining the Relevant Market	24
2.3.1	Evidence from third parties and various factors	25
2.3.2	High level of the transparency of evidence	26
2.3.3	An open approach of defining the relevant market	26
Chapter 3	Methods Applied in Defining the Relevant Market.....	28
3.1	Economics Theorems about the Relevant Market	28
3.1.1	Residual Demand Curve	28
3.1.2	Price Relevance Theorem	29
3.1.3	Elasticity Theorem.....	29
3.2	SSNIP Test	32
3.2.1	Fundamental theory	32
3.2.2	Evaluation of SSNIP Test	34
3.2.3	Development of SSNIP Test	35

Chapter 4	Suggestions on the Further Development of Defining the Relevant Market in China.....	37
4.1	Developing Comprehensive Analysis on Defining the Relevant Market	37
4.1.1	Taking more Factors into Consideration in practice when defining the relevant product market	38
4.1.2	Providing reasoning on Defining the Relevant Geographic Market ...	41
4.1.3	Considering Supply-side Substitution when Necessary	43
4.1.4	Applying Various Analytical Measures on Market Definition	44
4.2	Increasing the Transparency on both Progress and Case Decisions	46
4.2.1	Improving Transparency on Case Decisions	46
4.2.2	The Drawbacks on Account of Lack of Transparency	49
4.3	Improving the Effectiveness of Judicial Review Mechanism.....	52
4.3.1	Administrative Reconsideration	52
4.3.2	Administrative Lawsuit	54
Chapter 5	Conclusion.....	56
Appendix 1	the Statistics of Mergers Notified from the MOFCOM.....	61
Appendix 2	Horizontal Merger Control in both China and EU.....	62
Bibliography	63

Abbreviations

AML: Anti-monopoly Law of the People's Republic of China

EU: European Union

EUMR: The Control of Concentrations between Undertakings of the European Union

GC: General Court

MOFCOM: Ministry of Commerce People's Republic of China

MOFTEC: Ministry of Foreign Trade and Economic Cooperation

SOE: State Owned Enterprise

SSNIP: Small but Significant Non-transitory Increase in Price

TFEU: The Treaty on the Functioning of the European Union

Table of Cases

Case *Inbev/ Anheuser-Bush*, MOFCOM [2008] No.95.

Case *Mitsubishi Rayon/ Lucite*, MOFCOM [2009] No.28.

Case *Coco Cola/ Huiyuan*, MOFCOM [2009] No.29.

Case *Motors/ Delphi*, MOFCOM [2009] No.76.

Case *Pfizer/ Wyeth*, MOFCOM [2009] No.77.

Case *Panasonic/ Sanyo*, MOFCOM [2009] No.82.

Case *Novartis/ Alco*, MOFCOM [2010] No.53.

Case *Uralkali/ Silvinit*, MOFCOM [2011] No.33.

Case *Savio/ Penelope*, MOFCOM [2011] No.73.

Case *GE/ Shenhua*, MOFCOM [2011] No.74.

Case *Seagate/ Samsung*, MOFCOM [2011] No.90.

Case *Hankel HK/ Tiande*, MOFCOM [2012] No.06.

Case *UTC/ Goodrich*, MOFCOM [2012] No.35.

Case *Marubeni/ Gavilon*, MOFCOM [2013] No.22.

Case T-229/94 *Deutsche Bahn AG v. Commission* [1997] ECR II-1689.

Case T-65/96 *Kish Glass and Co LTD v. Commission* [2000] ECR II-1885.

Case T-125&127/97 *Coco Cola v. Commission* [2002] ECR II-1773

Case T-65/98 *Van den Bergh Foods Ltd v. Commission* [2003] ECR II-4653.

Case T-203/01 *Michelin v. Commission* [2003] ECR II-4071.

Case T-201/04 *Microsoft v. Commission* [2007] ECR II-3601.

Case T-342/07 *Ryanair Holdings v. Commission* [2010] ECR 3457.

Case 6/72 *Europemballage Corporation Continental Can Co Ltd v. Commission*
[1973] ECR 215.

Case 27/76 *United Brands v. Commission* [1978] ECR 207.

Case C-333/94 *Tetra Pak International SA v Commission* [1996].

Case C-241/00p *Kish Glass and Co Ltd v. Commission* [2001] ECR I-7159.

Case C-202/07 *France Telecom v. Commission* [2009] ECR I-2369.

Case IV/31043 *Tetra Pak II* [1991].

Case IV/M.166 *Torras/ Sarrio* [1992].

Case IV/M.458 *Electrolux/ AEG* [1994].

Case COMP/M. 3397 *Owens-Illinois/ BSN Glass pack* [2004]

Case COMP/C-3/37.792 *Microsoft* [2005].

Case COMP/38.233 *Wanadoo* [2005].

Case *Times-Picayune Publishing Co. v. United States* 345 US 594 [1952].

Chapter 1 Introduction

1.1 Research Questions

This thesis discusses the definition of relevant market in both European Union (hereinafter referred as EU) and the People's Republic of China under horizontal merger control. Anti-monopoly Law of the People's Republic of China (hereinafter referred as AML) was published in 2008 and took EU Competition law as an important reference. Comparing to the EU, the legislation and law enforcement of merger control in China is relatively limited. What can China learn from the EU and its abundant experience in Competition law? How to improve the skills of defining the relevant market? And further, how to improve transparency on both case decisions and judicial reviews in China? Through the comparisons with the EU, suggestions on further development of the relevant market definition in China will be proposed.

1.2 Structure of the Thesis

The thesis is structured in five chapters. Chapter one is Introduction, targeting the research topic and introducing historical development of Chinese competition law. In Chapter two, approach of how European Union defines the relevant market is discussed. It is mainly focus on legal investigations, based on the provisions, the case law and the academic research results. Chapter three is about methodology applied in defining the relevant market, from an economic perspective. In this chapter, several economic methods for investigating the relevant market are introduced. SSNIP Test is emphatically introduced in this section, including how it functions and the way of evaluation. In order to apply SSNIP Test in practice more accurately, several auxiliary methods are applied simultaneously with the test. Chapter four is based on the

discussion above and comes up with the suggestions on the further development of defining the relevant market in China. There are three points I want to make in this chapter. The first one is ways to improve the techniques on defining the relevant market, such as taking more factors into consideration, coming up with reasons on the defining of the relevant geographic market, applying various analysis measures and so on. The second point is suggestions to improve the transparency of merger control, on both case decisions and on case investigations. The third point is methods to improve the effectiveness of review system, both on administrative reconsideration and judicial review. Chapter five is the Conclusion. The important issues of this research are lighted in this chapter as a summary.

1.3 Methods of Research

The main methodology applied in this thesis is comparative method. EU has applied competition law for decades and accumulated abundant of experiences, while Chinese anti-trust authority “Ministry of Commerce People’s Republic of China” (hereinafter referred as MOFCOM) is criticized for the lack of experience in applying the AML when it deals with merger activities.¹ Thus, questions are raised that whether China can learn from advanced competition regimes, such as EU competition law. If the answer is positive, then how much and to what extent can China adopt from EU; what is more, how can China modify its particular legal techniques, with China its own political, economic and social situations?² By making comparisons between EU and China in various aspects of competition law, we can tell both the similarities and differences Thus, a variety of solutions can be offered how China should take EU as a

¹ X Wang, Comment on Operators Concentration in Anti-Monopoly Law of people’s Republic of China, (2008) Volume1 *Law Journal*, pp. 2-7; J Shi, Thinking about Complement of the System of Defense against the Substantial Test of Merger Control, (2009)Volume 12, *The Law*, pp.102-109.

² Y Huang, Pursuing the Second Best: the History, Momentum, and Remaining Issues of China’s Anti-monopoly law, (2008) Volume 75 Issue1 *Antitrust law Journal*, pp. 231-265.

reference from this comparative analysis.

Historical analysis is also applied in this thesis. China has its own political, economic and social situation. China experienced a profound revolution from a central-government-planned economy to a socialist market economy, which brought great national economic vigor to China. However, there are still some traces of the old one left in China economy after more than thirty years' reform. Especially, some historical issues, such as the position of State Owned Enterprises (hereinafter SOEs) and administrative monopoly in particular industries, are still in fierce debate publicly. In order to value Chinese competition law, a historical perspective with China's real situation is necessary.

In Chapter three economic methodologies is applied to analysis and evaluate the various theories in order to define the relevant market. The definition of relevant market is derived from the fundamental market theory with Economics research results. These economic theories and calculation methods are used commonly in competition law, especially in practice.

The thesis is based on library research. The study focuses on analyzing both primary and secondary sources. The primary sources contain China's the AML, EU legislation and EU case judgments. The secondary sources in this thesis can be divided into four categories: academic textbooks, legal journals, comments or general reports of governments or organizations, and news from internet websites. Meanwhile, case-study approach is applied in this thesis. In the paper, published case decisions from MOFCOM are collected and organized. In Chapter two, some of the decisions are compared to EU cases, and in Chapter four more cases are referred to in order to come up with suggestions on Chinese the AML application.

1.4 Historical Development of the Chinese Competition Law

1.4.1 Pre 2008 the establishment of the AML

Chinese economic reform began from the Third Plenary Session of the 11th Central Committee of the Chinese Communist Party, in which the country decided to transit the economic structure from a central-government-planned economy to a socialist market economy in 1978.³ Before the transition, the government controlled all the resources and made all decisions relating to production and consumption and some significant historical tracks of such economy remained till now. In March 1986, the State Council established Regulations for Further Pushing the Development of Horizontal Alliance in Economy.⁴ In December 1987, Suggestions on Construction and Development of Business Conglomerate was established.⁵ The real breakthrough in this period was the establishing of The Interim Regulation on Merger⁶ in 1989, which showed a clear supportive attitude to encourage SOEs merger activities. During this period, at the aim of reducing the loss of State Owned Enterprises (SOEs), the government encouraged mergers between SOEs to increase their market power.

In September 1999, Provision on the Merger and Division of Enterprises with Foreign

³ The announcement of the Third Plenary Session of The Eleventh Central Committee, *People's Daily*, Beijing, 24th December 1978.

⁴ Regulations for Further Pushing the Development of Horizontal Alliance in Economy, [国务院关于进一步推动横向经济联合若干问题的规定], which was promulgated by the State Council of China on 23rd March 1986. It was repealed in 2000.

⁵ Suggestions on Construction and Development of Business Conglomerate [国家体改委、国家经委关于组建和发展企业集团的几点意见] was promulgated by the State Commission for Restructuring the Economic System and State Economic Commission on 16th December 1987. It has been ceased.

⁶ The Interim Regulation on Merger [国家体改委、国家计委、财政部、国家国有资产管理局关于企业兼并的暂行办法] was jointly promulgated by the former State Commission for Restructuring the Economic System, the State Development Planning Commission, Ministry of Finance, the National State-Owned Assets Administration on 19th February 1989. It was repealed in 2000.

Investment⁷ was published, which was applied in the situation where a merger or one of the mergers is a foreign investor. The authority in charge was the Ministry of Foreign Trade and Economic Cooperation (hereinafter referred as MOFTEC)⁸. ‘The MOFTEC may, upon receipt of the documents as listed in the preceding paragraph, organize the relevant departments and agencies to hear the case of proposed corporate merger and conduct investigations into the company and the related market if the MOFTEC thinks that the corporate merger tends towards industry monopoly or it may constitute a predominant position in the market for particular commodities or services, which will hamper fair competition’.⁹This was a breakthrough in legislation however no further explanations on how to conduct investigations.

After joining the WTO in 2001, China is getting faced with t challenges to improve level of trade liberalization while maintaining state economic security at the same time. MOFCOM and other five authorities jointly published Interim Provisions on Mergers and Acquisitions of Domestic Enterprises by Foreign Investors in 2003.¹⁰ The purpose of this regulation including promoting and regulating foreign investors’ investment in China, maintaining fair competition and state economic security.¹¹ This regulation was the first comprehensive and systematic legislation in merger control relating to foreign investment enterprises, building the framework of control merger investigation, setting

⁷ Provision on the Merger and Division of Enterprises with Foreign Investment [关于外商投资企业合并与分立的规定] were promulgated by the Ministry of Foreign Trade and Economic Cooperation and the State Administration for Industry and Commerce on the 23rd September 1999. This amendment was issued on the 22nd November 2010. The analysis in this thesis is based on the amendment of 2010.

⁸ Some functions of the MOFTEC were undertaken by the MOFCOM since it established in March 2003, the National Development and Reform Commission and State Economic and Trade Commission were under the control of the MOFCOM. The MOFCOM is one of administrative departments composing the State Council.

⁹ Article 26, Ibid.

¹⁰ The Interim Regulation on Mergers and Acquisition of Domestic Enterprises by Foreign Investors was promulgated by the MOFCOM on 2nd January 2003 and took into effect on the 12th April 2003. The amendment of 2006 was issued on 8th August 2006 and took effect on the 8th September 2006. It changed from ‘interim provision’ to ‘The Provisions for the Acquisition of Domestic Enterprises by Foreign Investors’ on 22nd June 2009.

¹¹ Article 1, Ibid.

up measures, thresholds and enforcement of merger review, and coming up with procedure instructions.¹²

As a conclusion, in this period before AML 2008, the legislation in merger control was very limited. Objects were limited to SOEs or foreign investment enterprises, and executive procedure was opaque with few factors being considered. Legal provisions were scattered in different regulations and the boundary of authorities was not illustrated legibly. In a word, during this time, a systematic legislation was highly expected to acclimatize the rapid development of economic.

1.4.2 New period of Chinese Competition Law within the Framework of the AML

The People's Republic of China established the AML in August 15th 2008, which was the first comprehensive competition law of China, and this was a milestone in Chinese competition law history. Up to 13th February 2014, the MOFCOM successively published fourteen Guidelines.¹³ These Guidelines along with the AML constituted

¹² By August 2008, MOFCOM had received 590 proposed Mergers and acquisitions cases by foreign investors, available at http://news.xinhuanet.com/politics/2008-08/04/content_8942596.htm.

¹³ The fourteen guidelines are applied collaborated with AML, which are available at official website of the MOFCOM <http://fldj.mofcom.gov.cn/article/c/>, the list of the guidelines including:

- Regulations on the State Owned Enterprises Prohibiting the Competition (December 9th 1993);
- Regulation on Regional Restrictions in Social Market Economy by the State Council (April 18th 2001);
- Decisions on Regulation Social Market Order by the State Council (April 27th 2001);
- Interim Regulation on the Price Monopoly (July 8th 2003);
- Thresholds for Prior Notification of Concentrations of Undertakings by the State Council (August 3rd 2003);
- Measure for the Undertaking Concentration Declaration (November 21st 2009);
- Measure for the Undertaking Concentration Examination (November 24th 2009);
- Interim Provisions on the Divestiture of Assets or Business in the Concentration of Business (July 5th 2010);
- Interim Provisions on Assessing the Impact of Concentration of Business Operators on Competition (August 29th 2011);
- Interim Measures for Investigating and Handling Failure to Legally Declare the Concentration of Business Operators (December 30th 2011);
- Interim Provisions on Standards Applicable to Simple Cases of Concentration of Undertakings by the Ministry of Commerce (February 11th 2014);

the legal framework of Chinese competition Law, and play an important role of regulation market activities under competition environment. Until 9th January 2015, MOFCOM published twenty-five case decisions.¹⁴ Even though case decisions have no legal force under Chinese legal system, the reasoning of the decisions given by MOFCOM is crucial when evaluation the enforcement of AML.

Anti-monopoly Law is the fundamental legal regime in the market economy country. The AML is the core among many the Property Laws, which regulates the various social market relationships and establishes political, economic and social system. Judging from the main content of the AML, it is basically regulating monopolistic behaviors, thus, the AML is a Conduct Law. However, the AML is also talking about the enterprise scale, market structure and protecting consumer welfare, so it is also covering the property of Subject Law and Social Security Law. Since China's reform and opening, the mainstream of Chinese economy has been a competitive market. So the requirement of anti-monopoly is coming from public desire of improving economic efficiency.

Another historical meaning of the AML is that, by the establishment of this law more effective legal enforcement are declared. The AML gathered various legal documents which scattered in different levels and regions and combined those documents into a comprehensive Anti-monopoly law¹⁵. In the People's Republic of China, legislation is

Guiding Opinions of the Anti-Monopoly Bureau of the Ministry of Commerce on the Declaration Documents and Materials of the Concentration of Business Operators (April 18th 2014);

Guideline of the Declaration Documents of the Concentration of Business Operators (June 6th 2014);

Interim Regulation on the Concentration Cleared with Restrictions (December 4th 2014).

The English visions of those legal documents are available at <http://www.lawinfochina.com/>.

¹⁴ Published case decision are available at the office website of the MOFCOM, <http://fldj.mofcom.gov.cn/article/ztxx/>

¹⁵ 'The various ministries, commissions, the People's Bank of China, the Auditing Agency, and a body directly under the State Council exercising regulatory function, may enact administrative rules within the scope of its authority in accordance with national law, administrative regulations, as well as decisions and orders of the State

divided into different levels: the first level is the Constitution of The People's Republic of China, the second level is National laws published by National People's Congress and its standing committee, the third level is Administrative Regulations published by the State Council and local government, the fourth level is Administrative Compulsory Measure by local government, and then the other legal documents. The lower level legislation cannot be against the upper level legislation, and if there are conflicts between different levels legislation, the upper level legislation will be applied. The AML is the National Law which is in relatively high level of Chinese legal system. That means the applications of the AML in practice would be a significant improvement on legal force than when the provisions were scattered in different legal levels.

1.4.3 EU Competition Law as an Important Reference for the AML

1.4.3.1 Same Objective of Protecting Customer welfare

The EU and China have same objective on merger control, named protecting consumer welfare¹⁶. 'Effective competition brings benefits to consumers, such as low prices, high quality products, a wide selection of goods and services, and innovation. Through its control of mergers, the Commission prevents mergers that would be likely to deprive customers of these benefits by significantly increasing the market power of firms'.¹⁷ Consumer welfare is considered as the standard of proof and the objectives of competition policy.¹⁸ Mario Monti, the former EU Commissioner, stated that 'We both

Council', Article 71 of The Legislation Law of The People's Republic of China. The law was adopted at the third Session of the Ninth National People's Congress on March the 15th 2000 and was enacted on the 1st July 2000.

¹⁶ Landes and Posner, Market Power in Antitrust Cases. *Harvard Law Review* (1981) pp.937.

¹⁷ Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, para.8

¹⁸ A Pera and VAuricchio, Consumer Welfare, Standard of Proof and the Objectives of Competition Policy, 2005, Volume 1 Number 1, European Competition Journal, pp 153-177

agree that the ultimate purpose of our respective intervention in the market-place should be to ensure that consumer welfare is not harmed'.¹⁹ Consumer welfare is a consensus among the EU both theory and legal practice.

Under the AML, 'safeguarding the interests of consumer' is illustrated as one of the objectives.²⁰ In the decisions which had been published, the protection of consumer welfare was stated. In case *Coca cola/ Huiyuan*, the transaction was blocked²¹ and in case *Mitsubishi Rayon/ Lucite*, the notified transaction was cleared with restrictive²² both because of having negative effects on consumer welfare. However, the objectives of merger control under the AML are multiple, not only welfare of consumers but also public interest and competitors' interests.²³

1.4.3.2 Similarities on Enforcing Authorizes

The European Commission is an exclusive authority which has power to make decisions concerning concentrations with an EU dimension.²⁴ The European Commission has comprehensive authority to engage in investigation, decision making and imposing sanctions to mergers with an EU dimension. In addition, it is responsible for issuing competition related guidelines to address the problem

¹⁹ Convergence in EU-US Anti-trust Policy Regarding Mergers and Acquisitions : an EU Perspective, UCLA Law First Annual Institution on US and EU Anti-trust Aspects of Mergers and Acquisitions, speech by Mario Monti, European Commissioner for Competition Policy, in Los Angeles, February 2nd 2004. Pp.2 Para. 6.

²⁰ Article 1, AML.

²¹ Announcement MOFCOM [2009] No.22 *Coca cola/ Huiyuan*, Section IV Para.3, it will result in elimination and restraint of competition with existing fruit juice drinks enterprise and further damage the lawful interests and rights of the consumers.

²² Announcement MOFCOM [2009] No.28 *Mitsubishi Rayon/ Lucite*, Section V Para.1, it will have negative impact on effective competition in China's MMA market.

²³ Article 3, Interim Provisions on Assessment of impact of Concentration of Business Operators on Competition by the Ministry of Commerce of the People's Republic of China on September 5th 2011.

²⁴ Article 8, Council Regulation (EC) No 139/2004 of January 20th 2004 on the Control of Concentrations between Undertakings (hereinafter referred as 'EUMR'), [2004] O.J.L24.

identified by the Commission.²⁵ The European Court of Justice (hereinafter referred as ECJ) and the General Court (hereinafter referred as GC) are only responsible for hearing appeals when the merger parties are object to the Commission's decision and submit appeals.²⁶ If the ECJ and the GC find the decisions of the Commission are not correct, they have no authority to make any antitrust merger decisions or impose sanctions directly.²⁷

In China, similar to EU, the MOFCOM is an exclusive administrative authority in charge of merger activities, which is responsible to legislation, reviewing mergers, accepting notifications and negotiation of concentrations, hearing witness, investigation, examining as well as making decisions and setting sanctions or restrictions if necessary.²⁸ The relevant court is involved in the merger case when the parties concerned are object to the decision and submit appeals. However, unlike EU,

²⁵ W.P.J. Wile, The Combination of the Investigative and Prosecutorial Function and the Adjudicative Function in EC Antitrust Enforcement: A Legal and Economic Analysis, *World Competition: Law and Economics Review*, (2004) Volume 27 No.2 pp.202-224.

²⁶ Article 230(2) of the EU Treaty, 'It shall for this purpose have jurisdiction in actions brought by a Member State, the European Parliament, the Council or the Commission on grounds of lack of competence, infringement of an essential procedural requirement, infringement of this Treaty or of any rule of law relating to its application, or misuse of powers'. Article 21(1) EUMR 'subject to review by the [ECJ] the Commission shall have sole jurisdiction to take the decisions provided for in this regulation'.

²⁷ Appeals of merger case decision were discussed in M Furse, *Competition law of the EC and UK*, Sixth Edition, (Oxford University Press, 2008), pp.189-201.

²⁸ The missions of f Anti-monopoly Bureau under MOFCOM is available at <http://fdj.mofcom.gov.cn/aarticle/gywm/200809/20080905756026.html?1992812441=705144026>, including: a. to draft the related regulation on merger control and formulate administrative rules and documents of administrative norms on interpretation of regulation; b. to examine mergers based on anti-monopoly law, accept notification, carry out the work of hearing, investigation and merger review; c. to accept and investigate concentrations which are notified to antitrust enforcement authority, and punish illegal activities; d. to investigate monopoly behavior in external trade, and take measures to eliminate its issues; e. to guide the responding of internal enterprises on anti-monopoly in foreign countries; f. to initiate and organize negotiation and discussion of competition articles in bilateral or multilateral agreements; g. to organize international communication and cooperation on bilateral or multilateral competitive policies; h. to be responsible for specific assignments by the Anti-monopoly Committee of the State Council; i. to fulfill other assignments specified by the leaders in MOFCOM.

administrative reconsideration and judicial review are relatively weak in China. Thus, most actions of MOFCOM authority is kind of risky and in lack of supervision.

1.4.3.3 Similar Objectives on Establishing an Integrated Market

The EU is an economic and political organization with twenty-eight Member States, and every Member State is a relative independent market. “To build a single market” is important to the EU, thus it is also its principal economic rationale. The EU began with six Member States as an economic organization, and kept on its enlargement stably to establish a stronger union and extent its power on both economy and politics. The internal market shall comprise an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured in accordance with the provisions of the Treaties.²⁹ One of the main points of EU Competition law is establishing a single market among EU to enhance the mutual interactions in trade between Member States, and to achieve the free movements of goods, persons services and capital in this union.

In China, monopoly is also a huge hindrance for the establishment of an integrated national market, both in the dimension of areas and industries. The economic development is unbalanced in China; some regions such as South-East coastal areas are highly developed while some regions such as North-West inland areas are apparently far behind. The local governments at different levels (province, city, county) may use the administrative power to protect local enterprises from social market competitions, by setting quantity restrictions, tax policy to non-local enterprises. Meanwhile, some industries are not open to enterprises for market competition, which hinder the market's vitality. Chinese national government is intending to break the barriers between different regions and establish a united national market and stimulate the vitality of

²⁹ Article 26 (2) the Treaty on the Functioning of the European Union (hereinafter referred as TFEU).

market by more profound competition. From this sight, the objectives of establishing an integrated market are quite similar between EU and China.

Chapter 2 Defining the Relevant Market in the Light of EU

2.1 introduction

Defining the relevant market is the foundation of building up basic principles of competition law regime, and it is a crucial process of competition law practical application. In countries and regions where the framework of competition law has been established, defining the relevant market is the key step of competition assessment. In most cases, the competition assessments are based on effects of activities acted by enterprises, and the investigation results will lead decisions whether the activities of enterprises are legal or not. Thus, the scope where the competition happened must be referred and that is the scope we need to define as the relevant market. ‘Market definition provides a framework within which to assess the critical questions of whether a firm or firms imposes market power’³⁰, then the competition authority can examine, to what extent, the enterprise will use its market power or its potential market power to make more profit, which will cause negative effect on the competition, object to competition law regulations. From this light, it is fair to make a comment that defining the relevant market is the starting point and fundamentals of competition law practice and competition assessment.

In competition assessment, the relevant market can be explained as ‘the smallest scope of products (or regions) which can form the monopoly’.³¹ Within the relevant market, the product can increase the price initiatives without significantly affected by the competition from products outside the scope of the relevant market. Products in the same relevant market are competitive with each other and constraints for each other in

³⁰ Richard Whish & David Bailey, *Competition Law* (seventh edition), *Oxford Press* (2012) pp.28.

³¹ Christian A. Melischek, *The Relevant Market in International Economic Law: A Comparative Antitrust and GATT Analysis* (2013) *Cambridge University Press*, pp.96.

certain period. Having substitute effect is the key factor for products to category as one same relevant market. Proper definition of the relevant market is the foundation to investigate the effect of merger activities on the market competition. Systematical qualitative and quantitative analysis on competition effects will be possible only within a proper scope of the relevant market, especially about the analysis of market share and market concentration ratio. Defining the relevant market is the issue of factual cognizance, but not the issue of coming up with regulations on legislation. Defining the relevant market as an intermediary of legal technique reflects the level of force in enforcement in competition law area. The definition of the relevant market significantly affects the results of competition assessments. If the relevant market is defined too wide, the enterprise under investigation which has already owned a large amount of market share and enjoyed significant market power will present to have a relative low amount of market share, thus its merger activities will be free of those merger control regulations. However, its real market power is relative high, so the enterprise can earn profit while harm the welfare of consumers by increasing the price or making a degradation on quality. On the contrary, if the relevant market is defined too narrow, the investigation will indicate a high amount of market share which is actually higher than its real market share. In that case, the enterprise will be ruled by merger control regulations and lead its merger activities illegal. Such error of restricting merger activities will hinder the development of economic efficiency, which is not the aim of application of competition law.

2.2 The definition of the relevant market in EU

Before 1997 the ECJ made several comments on definition of the relevant market in different cases and became a part of origins in the EU legal framework. In 1997, the EU Commission published the Notice on the Definition of Relevant Market for the Purposes of Community Competition Law (hereinafter referred as Notice), and made

clear explanations on the issue of defining the relevant market.³² This Notice is applied in the whole EU legal regime, including Article 85 and Article 86 of the former EEC Treaty (now Article 101 and Article 102 of the TFEU) and other regulations related to merger control.³³ From the legal practice in recent years, various methodologies including economic analysis tools are used in the competition assessments and make the issue of defining the relevant market even more important.

Definition of relevant product market and relevant geographic market:

A relevant product market comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer, by reason of the products' characteristics, their prices and their intended use.³⁴

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 area.³⁵

Market definition is not an end in itself, and it is 'a tool for aiding the competitive assessment by identifying those substitute products or services which provide an effective constrain on the competitive of the products or services being offered in the

³² Commission Notice on the definition of relevant market for the purposes of Community competition law, [Official Journal C 372 of 9.12.1997].

³³ Para. 7, *Ibid.* 'The Regulations based on Article 85 and 86 of the Treaty, in particular in section 6 of Form A/B with respect to Regulation No 17, as well as in section 6 of Form CO with respect to Regulation (EEC) No 4064/89 on the control of concentrations having a Community dimension have laid down the following definitions'.

³⁴ Para. 7, *Ibid.*

³⁵ Para. 8, *Ibid.*

market by the parties under investigation³⁶. Interchangeable or substitutable are the main points during the merger assessment.

2.2.1 The relevant product market

2.2.1.1 Demand side substitute

Demand-side substitute means in the relevant market when the price of one product is increased, consumers will switch from this product to another product. Because of the consumers switching to other products or consuming from other suppliers, the enterprises which increase price will lose their sale volume and the behavior of increasing price will be non-profitable. 'From an economic point of view, for the definition of the relevant market, demand side substitute constitutes the most immediate and effective disciplinary force on the suppliers of a give product, in particular in relation to their pricing decisions'.³⁷

2.2.1.1.1 Physical characteristics and the intended use of the products

'An analysis of the product characteristics and its intended use allows the Commission, as a first step, to limit the field of investigation of possible substitutes. However, product characteristics and intended use are insufficient to show whether two products are demand substitutes. Functional interchangeability or similarity in characteristics may not, in themselves, provide sufficient criteria, because the responsiveness of customers to relative price changes may be determined by other considerations as well'.³⁸ In general speaking, the products having similar physical characteristics or

³⁶ S. Bishop and M. Walker, the Economics of EC Competition Law: Concepts, Applications and Measurement (third edition), *Sweet & Maxwell* (2010), pp.46.

³⁷ Para. 13, *Ibid.*

³⁸ Para. 36, *Ibid.*

intended use will have great possibilities to be categorized into a relevant market, however, there are exceptions.

During decades of experience of EU Commission in competition assessments, in some special cases, the products having similar physical characteristics can be sorted as different relevant markets. In case *Van den Bergh Foods*, the Commission held that the market of impulse ice cream which brought as individual portions in shops for immediate consumptions and the market of take-home ice cream which bought as multi-packs of single items designed for storage and consumption at home were separated relevant product market. One main reason on this decision was the ‘distinction on the basis of the consumer’s intended purpose in purchasing the ice cream in turn determines the differences in characteristics and price between impulse and take-home product’.³⁹ It also stated that, ‘While, for many products, vertical restraints on the freedom of retailers can be accepted because they stimulate interbrand competition, such interbrand competition is less likely for impulse products, because customers do not in general enter a shop with the intention of buying those products and do not seek to compare the products of one sales outlet with those of another’.⁴⁰ Another example, case *Michelin*, the Commission considered the various factors including the specific characteristics and the uses by finally consumers, and then decided that the market for new replacement tyres for lorries and buses was separate to that for retreads.⁴¹ There are other case decisions expressing the same information, such as *Microsoft*⁴², *Wanadoo*⁴³, *Clestream*⁴⁴ and so on.

From above discussion, we can tell that the point in defining the relevant market is not

³⁹ Case T-65/98, *Van den Bergh Foods Ltd v. Commission* [2003] ECR II-4653, Para. 130.

⁴⁰ Para. 132, *Ibid.*

⁴¹ Case T-203/01, *Michelin v. Commission* [2003] ECR II-4071, Para. 116.

⁴² COMP/C-3/37.792, *Microsoft* [2005] 4 CMLR 965, Case T-201/04, *Microsoft v. Commission* [2007] ECR II-3601.

⁴³ COMP/38.233, [2005] 5 CMLR 120, Case C-202/07, *France Telecom v. Commission* [2009] ECR I-2369.

⁴⁴ COMP/38/096, [2005] 5 CMLR 1302, Case T-301/04, *Clearstream Banking v. Commission* [2009] ECR II-3155.

“ similar physical characteristics or the intended use”, but the substitutive effect between the products. Even though the products have similar physical characteristics or the intended use, the consumers have not found them to be substitutive, so the products will not be sorted into a relevant market. Even though in most cases, products have similar physical characteristics or intended use will constitute substitutive relationship, nevertheless if the this substitutive relationship is not reflected in the competition assessment, the products will not categorized as the same relevant market no matter how similar the physical characteristics and the intended use they are. On the contrary, if one product has some unique characteristics, it does not directly mean this product constitute a relevant market itself. If there are other products have substitutive effect to this product to a certain extent, they will be sorted as a relevant market in a certain case. A product can only become a relevant market itself when the unique part cannot be substituted by other products, thus it can increase the price without restrictions of other products in the market. So, relying on physical characteristics and intended use is not reliable all the time.

2.2.1.1.2 The price different of the products

The product price is an important index reflecting competition situations in the market. Normally, the level of products price and the qualities of products have negative correlation. The products for the same or similar intended use will be separated into different price levels so that the consumers are separated into different groups as well. However, the difference of price is not accurate in defining the relevant market. EU considers that the actual factor is not the absolute difference in price, but whether the change of one product price will affect the price of others with competition effects.

In the same relevant market, two products must be substitutes and the price change of one product must influence the price of the other. Thus, investigating the changing

records of these products prices and analyzing their similarity or convergence of their price curves will provide evidences for the competition assessment. Based on that, we can infer the substitute relationship between the products.

In some cases, products with different price level can be considered as separated relevant market. Even though products belong to a same category of product, the difference in price is too significant, thus separates different consumer groups, and makes products no significant substitute effects. Consumers who purchase products with higher price will not switch to lower price ones even though the price of their consumption goods increases. At the same time, if the price of the lower product increases, the consumers who purchase the lower price product will not switch to the higher price product when there is still significant price difference in between. This phenomenon appears obvious in various industries, such as clothes, cooking utensils, food and so on. For instance, the organic meat is sold in the market with price twice as much as regular meat, but consumers who prefer organic meat will not switch to other kind of meat as long as price of the organic meat increase in a reasonable range.

2.2.1.1.3 Consumer preference of the products

Consumer preference is also a factor which should be taken into consideration when defining the relevant market. Consumers will not switch to other products as delicate as they should be when facing the price increase if there is consumer preference existing. Consumer preference reflects the subjective factors of customers when they choose their purchase, not only restricted by pricing mechanism principle. Consumer preference can be generally divided into two types. 'Products can be differentiated because of intrinsic quality differences (like e.g. fuel efficiency in cars, size of the hard drive in computers, after-sales services) or on grounds of perceived quality differences

(reputation of a brand in consumer goods)'.⁴⁵

When there is consumer preference, the consumers will not switch to same price level product or even lower price products. Consumer preference restricts the substitute effect between products, so this factor must take into consideration when necessary during the competition assessment process. The evidence of existing of consumer preference can be analyzed from the past record about how did the company make decisions, set price level, and conduct market activities based on the appearance of consumer preference. EU Commission will collect information from the third parties, such as industry union, other competitors in the same relevant market, consumers. In case *Tetra Pak II*, the consumer preference was considered as a factor when defining the relevant market. The reason stated by the Commission is that 'this low elasticity of substitution can be explained by the marginal share accounted for by packaging in the retail price of liquid foods and by the fairly high stability of consumer preferences over a short period'.⁴⁶

2.2.1.1.4 The evidence of substitute in the recent past of the products

The evidence of substitute from the recent past is one kind of evidence based on the substantial examples to indicate the substitutive relationship between products. If the loss of sale volume was because of the increase of price, to some extent, the evidences from the past can prove the substitutive effects between products and as an inference for the products belong to a same relevant market. These evidences can be very helpful for the competition assessment which is under scrutiny despite the situation happened in

⁴⁵ Directorate for Financial and Enterprise Affairs Competition Committee. Roundtable on Market Definition, Note by the Delegation of the European Union, May 31st 2012, DAF/COMP/WD (2012)28, Para. 23. The document is available at:

http://ec.europa.eu/competition/international/multilateral/2012_jun_market_definition_en.pdf

⁴⁶ 92/163/EEC, Commission Decision, *Tetra Pak II* [1991], IV/31043, Para. 93; Case C-333/94, *Tetra Pak International SA v Commission* [1996].

the recent past. However, since the social economic market is changing rapidly nowadays, no one can guarantee the substitutive effects will show up again. Thus this kind of evidence is only an accessory reference in competition assessment, not a solidly reliable evidence all the time. Another point need to pay attention is that, the relationship of substitution is not balanced and symmetric all the time, which means one product have substitutive effect to another product does not mean the opposite path works as well. The other product may not constitute significant substitutive effects as return. In another word, consumers switching from product A to product B because of the price increasing of product A does not indicate that if the price of product B increases, consumers will switch back to product A. The market activities are extremely complex, influenced by various factors, and the social economic market will not be perfect balanced and symmetric.

2.2.1.2 Supply-side substitute

Besides the demand side substitute, the substitutive effect from supply side also influences the defining of relevant market. If the demand side substitute constructs the direct restrictions on competition, the supply side substitute is the potential restrictions on competition. Facing the pricing change of specific product, consumers can switch their purchase easily. Comparing to that, the switch of production from supply side is much more difficult, so the effect of supply side substitute is relative insignificant than demand side substitute. Under some circumstances, supply side substitute can, when the price of a certain product is increasing, adjust their productions in a short time period to earn a big sale volume because of the increase of price, so the activities of increasing will be unprofitable. ‘These situations typically arise when companies market a wide range of qualities or grades of one product’;⁴⁷ The Commission had

⁴⁷ Para.21, Notice.

accepted and applied the supply side substitute into practice in case decisions.⁴⁸

The factors which should be taken into considerations when investigating supply side substitute are similar with investigation of demand side substitute, including the evidence of substitute from the recent past, purchase routine and trade flows. Besides these factors, cost to switch production should be scrutinized, including the cost of adjusting production lines, building up distribution channels and obtaining purchase contracts.

In addition to assessing the demand side substitutability, the Commission regularly analyses the supply-side substitutability when defining markets. However, generally the application of supply-side substitution is rather limited. According to the Commission, ‘Supply-side substitutability may also be taken into account when defining markets in those situations in which its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy’⁴⁹ to significantly affect the outcome of the market definition practice, and this is also showed in the case decisions⁵⁰. This means that competitive suppliers are able to switch production to the relevant products and market them in the short term without incurring significant additional costs or risks in response to small and permanent changes in relative prices.⁵¹ In case *Torras/ Sarrio*⁵², the Commission relied upon supply side substitution in considering a merger in the paper section⁵³. The production of paper is a practical example of the approach to supply-side substitutability when defining the product markets. Paper products are categorized into a range of different qualities, from normal

⁴⁸ Case 6/72 *Europemballage Corporation and Continental Can Co Inc v. Commission* [1973] ECR 215.

⁴⁹ Para.12, Notice.

⁵⁰ Case IV/M.458 *Electrolux/AEG*; Case T-65/96 *Kish Glass and Co LTD v. Commission* [2000] ECR II-1885; Case C-241/00p *Kish Glass and Co Ltd v. Commission* [2001] ECR I-7159.

⁵¹ Para.20, Notice.

⁵² Case IV/M.166, *Torras/ Sarrio* (1992).

⁵³ M. Furse, *The Law of Merger Control in EC and the UK, Hart publishing* [2007], pp.33.

writing and copying paper to very high quality papers, such as the papers for art books or the packing of luxurious products. These different qualities papers are not substitute for consumers, however, the production of paper can be adjusted with negligible costs within a relative short time period. In paper industry, paper manufacturers usually product based on the costumers' orders, and they can have pretty much lead time to prepare for the order and adjust their production lines, so the production in this industry is very predictable. In this case, the Commission will take supply-side substitute into consideration and will not define different qualities papers as separate relevant markets. The various qualities of papers are categorized as a unified relevant market and the sale volume in different qualities paper are added up for a competition scrutiny.

EXCELLENT WRITING

2.2.2 The relevant geographic market

The approach to geographic market definition is set in the Notice⁵⁴ which faithfully following the definition illustrated by the ECJ in the Judgment of *United Brands* case: the relevant geographic market as comprising an area 'in which the conditions of competition are sufficiently homogeneous'.⁵⁵ However, in practice, the definition of the relevant geographic market is not requiring exact homogeneous markets and the behaviors of undertakings may be constrained by imports from areas where the conditions of competition are not the same.⁵⁶ The GC held that 'the definition of the geographic market does not require the objective conditions of competition between traders to be perfectly homogenous. It is sufficient if they are "similar" or "sufficiently homogenous" and accordingly, only areas in which the objective conditions of competition are "heterogeneous" may not be considered to constitute a uniform market,

⁵⁴ Para.8, Notice.

⁵⁵ Case 27/76, *United Brands v. Commission* [1978] ECR 207, Para. 11.

⁵⁶ V. Korah, *An Introduction Guide to EC Competition Law and Practice* (ninth edition) 2007, Para. 4.3.1.2.

in the judgment of case *Deutsche Bahn*.⁵⁷

When defining the relevant geographic market, the most important factor considered by the Committee is the differences of competition circumstances between geographic areas related to the product market. The differences include regulations by local authorities, the limit of market capacity, local revenue level, public procedure, standard of environmental protection, criterion of technologies and so on. Those restrictions and rules have profound influences on companies' market activities, and basically circle competition areas. Secondly, the cost of transportation and the physical characteristics should be considered abortively when defining the relevant geographic market. The products need to transport between different regions without significant increase of product price if the products are sorted as a same relevant geographic market. The transportation fee is crucial in the trade between different regions, and the cost is basically decided by the physical characteristics of the certain products. Some products have particular requirements on parking, such as glass, and some products need to be transported in certain temperature or time period, such as some food. Thirdly, the prices of products may be the evidence of constituting separate relevant geographic markets. Same kind of products with different price level in different region makes them belong to different relevant geographic market. Fourthly, the routine of purchasing and trade flows will influence the definition of the relevant geographic market. Fifthly, the consumer preference has significant effect on investigating the relevant geographic market, such as beer industry. This list is not exhausted, and there are some other factors may have obvious influences on the issue of relevant geographic market according to the certain circumstances of cases. EXCELLENT WRITING

2.3 EU Experiences on Defining the Relevant Market

⁵⁷ Case T-229/94, *Deutsche Bahn AG v. Commission* [1997] ECR II-1689, Para.92.

2.3.1 Evidence from third parties and various factors

From years of practice, EU realizes that it is crucial to collect evidence from a big range of market players to define the relevant market as long as the competition investigation. Every parties which may possibly relate to the area where the competition investigation is carried on, can provide their opinions and evidences to assist in defining the scope of relevant market. The market players include, related government departments, industry associations and organizations, main competitors, downstream distributors, main customers and main companies. Whenever it is appropriate and necessary, the EU Commission will address written requests for information to market players mentioned above. These requests contain market players' opinions of the boundaries of the relevant market, their expected reaction to the hypothetical price increase, and other factual information which the Commission finds necessary or any information market players consider helpful to define the relevant market under the discussion. The Commission can also have discussions with companies' director and officers to have a better understanding of the market situation between companies and between suppliers or customers. If the Commission finds it is necessary, they might visits or inspections to the production of those parties to have a better understanding of how products being manufactured and sold.⁵⁸ This type of evidence is abundant in EU competition practice. When defining the relevant product market, product characteristic and intended use, substitution evidence in the recent past, views of customers and competitors, consumer preferences, barriers to potential substitutes and different categories of customers and price discrimination will be taken into consideration.⁵⁹ When come to defining the relevant geographic market, evidence from the recent past, product characteristics, customers and competitors' opinions, current geographic purchase pattern, trade flows, shipments pattern and barriers for companies in other areas, are considered.⁶⁰

⁵⁸ Para. 34, Guideline..

⁵⁹ Para. 36 to 43, Guideline.

⁶⁰ Para. 44 to 50, Guideline.

2.3.2 High level of the transparency of evidence

The EU Commission defines the relevant market on a case by case basis. The Commission makes an overall assessment of the case on the basis of all available evidence collected by the Commission, the local authorities, the parties and the other third parties. There is no hierarchy between different types of evidence or different sources of information.⁶¹ The types of evidence used and their importance depend on the characteristics of the industry and the products in question as well as the availability of the necessary quantitative and qualitative data, and the potential time constraints of the investigation. The Commission follows an open approach to any relevant qualitative and quantitative evidence aiming at making an effective use of all available information.⁶² The Committee will publish the evidence which is related to the definition of the relevant market, excepting the business confidential information. The Commission will obscure crucial business data which related to the confidential information and publish the fact without revealing parties' business secrets if the information is important for defining the relevant market and necessary to be published. The Commission will notify parties involved in the cases and leave the information available to the public, so other parties are not requested by the Commission will also have a chance to become a part of the case and provide the evidence from their own sight.

2.3.3 An open approach of defining the relevant market

Since the definition of the relevant market is such a complicated issue with so many

⁶¹ Case T-342/07 Ryanair Holdings v Commission [2010] ECR 3457, Para. 156 to 158, 'There is no hierarchy between technical and non-technical evidence'.

⁶² Directorate for Financial and Enterprise Affairs Competition Committee. Roundtable on Market Definition, Note by the Delegation of the European Union, May 31st 2012, DAF/COMP/WD(2012)28, Para. 20. The document is available at:

http://ec.europa.eu/competition/international/multilateral/2012_jun_market_definition_en.pdf

factors should be taken into consideration, it is not rare that there will be multiple conceivable definitions of the relevant market.⁶³ The reasons why there will be differences on relevant market definitions is various, the different backgrounds and particular situations of the case, different emphasis points of companies' activities⁶⁴ and the different time period along with the changing market conditions⁶⁵. In that case, the Commission practices to leave the market definition open. The premise to have an open definition of the relevant market is if under all alternatives the operation in question does not raise competition concerns. The precise definition will raise a lot of disagreements which are unnecessary, and will also leave heavier burden on both the parties and authorities during the competition investigation. An open definition of the relevant market is also illustrated in the provisions.⁶⁶

⁶³ Para. 20, Notice.

⁶⁴ Case COMP/M. 3397 *Owens-Illinois/ BSN Glass pack* [2004] O.J.C 174/16, Para.24-26.

⁶⁵ Joint Case T-125& 127/97 *Coco Cola v Commission*, ECR[2002] II -1773, [2000]5 C.M.L.R467 all ER(EC)460 Para. 81-82.

⁶⁶ Para. 25. Notice.

Chapter 3 **Methods Applied in Defining the Relevant Market**

The definition, as well as the evaluation of relevant market in the competition law, is derived from the fundamental market theory from Economics. In economics, most theories used for market properties research are emphasizing on their application in competition law practice. Thus, those theories and calculation methods derived by Economics are used most commonly, in evaluating the scope of a relevant market⁶⁷, and in analyzing market power of each company. Normally, in order to do it accurately, we apply multiple economic methods to define the scope of a relevant market.

3.1 Economics Theorems about the Relevant Market

3.1.1 Residual Demand Curve

Residual demand is the quantities of goods demanded by the market for a specific supplier. Mathematically, it is equal to the total market demand less supply provided by other companies other than the one which are researching on. In 1993, Kamarschen and Kohler⁶⁸ first came up with the definition of residual demand curve. It is a visualization of residual quantity demanded (x-axis) by price (y-axis), putting other competitors' reaction to market price change in consideration. Theoretically, given by the residual demand curve, for each quantity demanded, it automatically considers reaction of other products towards the price change of this specific product. In the real market, when companies are trying to merge with each other, their residual demand curves after each

⁶⁷ Areeda and Turner clarify that, in economic terms a 'market' is one firm or any group of firms which, if unified by agreement or merger, would have market power in dealing with any group of buyers. From: ARREDA, P., and D.F. TURNER, 1978. *Antitrust Law*, Boston: Little Brown.

⁶⁸ From: KAMERSCHEN, D.R., and J. KOHLER, 1993. Residual Demand Analysis of the Ready to-Eat Breakfast Cereal Market, *Antitrust Bulletin*, Vol. 38, No. 4 (winter), pp. 903-942.

merge are also approaching the market demand curve. Thus, residual demand curve is widely regarded as a tool to compare each company's market power before and after the merge, especially in imperfect competition market.

3.1.2 Price Relevance Theorem

The core of Price relevance theorem is: if two goods are from the same relevant market, even though they may have different equilibrium prices in the short term, they will finally come to a same stable price in the long run; also, goods produced in different regions will have a trend to getting closer in price. If the pricing relationship between two products is very significant, we will say that those two companies are having fierce competition; if the pricing relationship is not significant; such competition effect is not strong. The advantage of using Price Relevance Theorem is its compatibility with both simple and suplicated settings, and its relative small amount of data property (only consecutive prices of two goods are necessary). The limit of using Price Relevance Theorem is, in reality, the price change for our observational time period will mostly not converge because of its partial equilibrium assumption.

3.1.3 Elasticity Theorem

In economics, elasticity is defined as the sensitivity of response variable to the independent variable. Price elasticity of demand is the percentage change of quantity demanded versus the percentage change of the price. It means for each percentage change of price, how many percentage change will the quantities demanded be. Its formula is:

$$EP = (\Delta Q/Q') / (\Delta P/P')$$

In which ΔQ is the quantities demanded changes after the price change. Q' is the original quantity demanded before price change. ΔP is the difference of prices of good

before and after the price change. P is the original price.

From the basic price elasticity of demand, economists have come up with other concepts such as cross-price elasticity of demand, price demand of residuals. Those concepts are playing very important roles in finding the border of relevant market.

3.1.3.1 cross-price elasticity of demand

Cross-price elasticity of demand is describing the magnitude of quantity demanded change after the price change of another good. Mathematically, it means for each percentage change of another good's price, how many percentage change will the quantity demanded of this good will be. Its formula is:

$$EP = (\Delta Q/Q_2) / (\Delta P/P_2)$$

In which ΔQ is the quantities demanded changes after the price change. Q_2 is the original quantity demanded before price change. ΔP is the difference of prices of another good before and after the price change. P is the original price of another good. Cross-price elasticity of demand tells us the relationship between one product price with quantity demanded for another related good. There are two categories of such relationship: positive correlation (cross-price elasticity is positive), thus these two goods are substitutes; negative correlation (cross-price elasticity is negative), thus these two goods are compliments.

In relevant market research, we want to test the strength of positive correlation (substitute relationship). If the absolute value of cross-price elasticity of demand is very large, it means raising price of one good will significantly increase the quantity demanded by another good, thus those two products are having strong competition relationship. Those two products could be categorized into a same market. On the contrary, if the absolute value is small or even negative, then we will say that those two

products are not belonging to a same relevant market, with weak substitute power.

Cross-price elasticity of demand offers a very practical method to define the relevant market during legal enforcement. Because it is a quantitative research method, it could overcome the drawback of subjective pre-judgment in other qualitative methods. The United States Supreme Court first introduced cross-price elasticity of demand method in defining relevant market in 1952⁶⁹, and started not using it in 1978⁷⁰. Anish Vaishnav's research explains thoroughly reasons of not using it⁷¹.

Also, Baker and Bresnahan's research, they said they found 'an econometric technique for estimating the single firm residual demand curve that does not require the estimation of demand cross-elasticity.' And 'The technique is particularly suited for the estimation of firm market power in product differentiated industries, where cross-elasticity are notoriously difficult to measure.' And 'this methodology is applied to estimate the market power of three firms in an industry characterized by product differentiation: brewing industry.'⁷² All of these add to the breakdown of using cross-price elasticity of demand.

3.1.3.2 Residual Price Elasticity of Demand

Residual Price Elasticity of Demand evaluates the magnitude of change of good

⁶⁹ Case *Times-Picayune Publishing Co. v. United States*, 345 US 594 (1952).

⁷⁰ The Court decided not to rely on cross-elasticity of demand data, opting for a more subjective test. Case *United Brands Co .v. Commission*, (1978), ECR 207, (1978) 1 CMLR 429.

⁷¹ In Anish Vaishnav research (2011) on pharmaceutical industry [4], she found 'an overview of the structure of the pharmaceutical industry will provide a deeper understanding of the consequences and faults of using cross elasticity of demand to define product markets in the pharmaceutical industry.' From: Anish Vaishnav, 2011. Product Market Definition in Pharmaceutical antitrust cases: Evaluating Cross-Price Elasticity of Demand. *Columbia Business Law Review*, pp.586.

⁷² Jonathan B. Baker and Timothy F. Bresnahan, 1988. Estimating the Residual Demand Curve Facing a Single Firm, *International Journal of Industrial Organization*, vol. 6, pp. 283-300.

demanded by other companies in the same relevant market, when one company's selling price changes. Different from normal demand curve, residual demand curve gives us the price (one company's good price, y-axis) versus quantity demanded by other companies totally (x-axis). It would be more accurate to use residual demand curve to evaluate the market power of a specific company. Baker and Bresnahan believe that after one company changes its good price, other companies will definitely change their marketing and producing strategies to adapt the change of market.⁷³ To be exact, Residual Price Elasticity of Demand could tell us how fast and how much will other companies react to the price change of one specific company good. Lower Residual Price Elasticity of Demand means even though one company raise its selling price, most consumers will still buy it without switching to other substitutes; thus this company has a very strong market power. On the other hand, if the Residual Price Elasticity is very high, the rising price of one product will make consumers demand products from other competitors, which means weak market power for this specific company.

3.2 SSNIP Test

3.2.1 Fundamental theory

SSNIP test is a common method used to define a relevant market, and is applicable in competition law cases worldwide. Simons and Williams argued that the introduction of the SSNIP test in the Guidelines significantly advanced merger analysis by introducing the concept of residual demand elasticity to bind the market.⁷⁴ SSNIP is short for Small but Significant Non-transitory Increase in Price. SSNIP is used to find the smallest relevant market. It first assumes a hypothetical monopolistic company will make a

⁷³ pp. 292, *Ibid.*

⁷⁴ From: SIMONS, J.J., and M.A. WILLIAMS, 1993. The Renaissance of Market Definition, *Antitrust Bulletin*, Vol. 38, No. 4 (winter), pp. 799-857.

small but significant increment on long-run price. Then, it use hypothesis test to verify if this company could be profitable by this 5%-10% increase in price in long term, normally one year. SSNIP test is a reduplicative loop procedure. Products which might have substitution effect will be added and repeat the hypothesis test, until the increasing in price is profitable. Here are four steps:

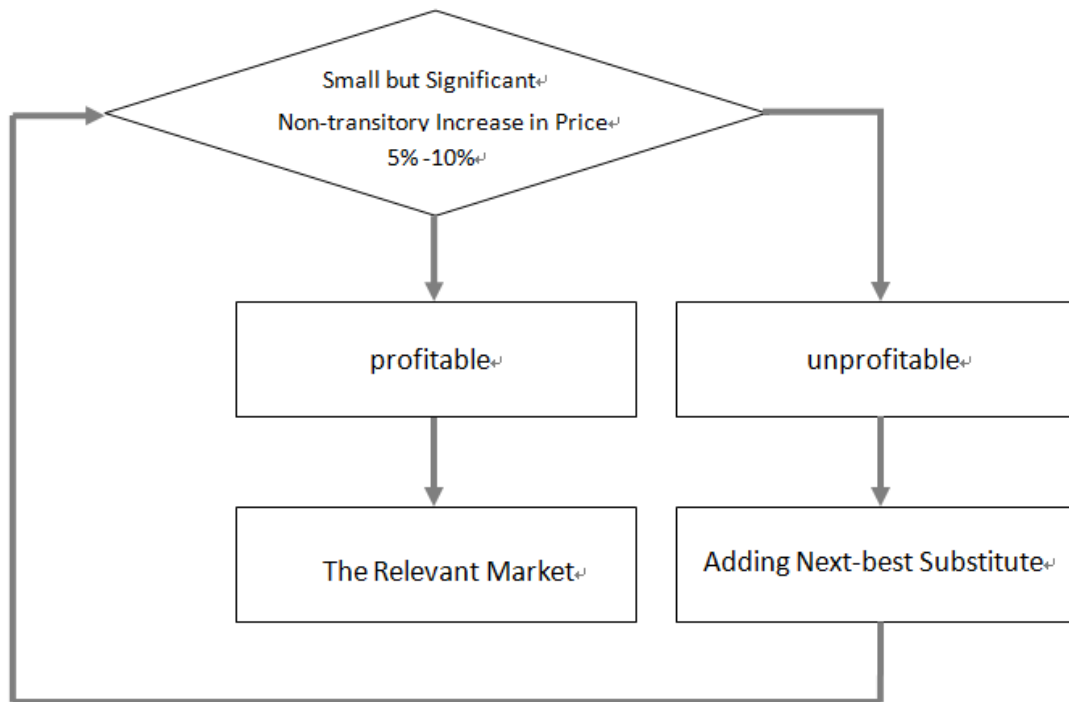
Step one, Define a small group of goods (or regions) as initial product candidate bundle;

Step two, Assume one company with strongest market power or market share increase 5% to 10% in price, and then we test its profitability.

Step three, if increasing is not profitable, we need to bring the closest substitute into the bundle, then do step two repeatedly.

Step four, when most consumers no longer choose to buy other goods after small but significant price change of these products, the loop stops. Then we will have the products bundle which define the scope of the relevant market.

The procedure is shown as follow:



3.2.2 Evaluation of SSNIP Test

SSNIP Test gives detailed standard on getting the substitute property between products, which is a milestone in defining the scope of the relevant market. It overcame the drawback of pre-judgment made for qualitative research, and set the framework of quantitative analysis on competition law area.

In SSNIP Test, the crucial part is finding the closest substitutes, and putting them into an accurate order. Closest substitutes are a bundle of products which are ordered as its substitutive effects from strongest to weakest. They are products that could possibly be chosen if the initial product provided by monopoly is intimidatingly high. By adding a good from this bundle into the relevant market bundle, the price elasticity of demand will become minor and minor. After reaching a threshold, we will stop adding those good from substitute bundle into the relevant market bundle, and the reaming products in the relevant market bundle constitute the relevant market we are aiming to define.

Wrong order or bad selection of substitute goods will cause error. For instance, if we ignore some products which have strong substitutive effects. Then by adding those weak substitutes consecutively, we will also come to the threshold, but without those important strong substitutes. Thus, we will get a smaller relevant market definition. Another example is, if we put weak substitutes ahead of strong ones, we will first add those weak substitutes into the relevant market bundle which may not be necessary if we have an accurate order and put those strong substitutes into that bundle first. Thus, we will come to a larger relevant market definition, which is a typical violation of the principle of the smallest market. In order to avoid those errors, we will apply other method simultaneously, or try to apply several possible permutations of products rather than only one permutation.⁷⁵

3.2.3 Development of SSNIP Test

With highly economic development and rapid change of market environment, it is becoming more and more difficult to apply SSNIP Test in practice, which needs amount of data to get the test result. In order to overcome its shortcoming, we apply other auxiliary testing methods with SSNIP Test, to make the border of the relevant market more accurate.⁷⁶

3.2.3.1 Price elasticity of residual demand

In imperfect competitive market, we could also use Price elasticity of Residual Demand method along with SSNIP Test. This method has its advantage in analyzing market power of companies from differentiated markets, analyzing merging or conspiracy

⁷⁵ PATRICK Massey. Market Definition and Market Power in Competition Analysis: Some Practical Issues. *The Economic and Social Review*, Vol. 31, No. 4, October, 2000, p. 309-328

⁷⁶ Harris, R. and J.J. Simons, 1989. Focusing Market Definition: How Much Substitution is Necessary?, *Journal of Research in Law and Economics*, Vol. 12, pp.102

behavior of two companies. Its simple method and quick shot is the advantage.

3.2.3.2 Critical Elasticity Analysis (CEA)

First, assume that monopoly (duopoly) increase price little but significantly. By doing so, we will find the highest value of price elasticity of demand. If the price elasticity before price change is smaller than the value we got from CEA, then the price increase will not cause a big loss in consumers, then increasing price is profitable. However, if the price elasticity before price change is larger than the value we got from CEA, and then loss of customers cannot be made up by increase of good price. By using econometrics knowledge, CEA will diagnose market power of a company more accurately.

3.2.3.3 Critical Loss Analysis (CLA)

CLA are defined as the most loss of sales a company could suffer after increasing price. It evaluates the loss of market caused by increase of price, assuming a company is very powerful in the market. It tells us the equilibrium loss of market that it can suffer by applying “increasing price” strategy. It is the threshold that makes a company non-profit after raising its product price.

Chapter 4 Suggestions on the Further Development of Defining the Relevant Market in China

4.1 Developing Comprehensive Analysis on Defining the Relevant Market

In 2009, a Guideline on the Definition of the Relevant Market was published by the Anti-monopoly Committee of the State Council, one year after the enforcement of the AML 2008.⁷⁷ This Guideline took the EU Commission notice on the definition of Relevant Market as an important reference, and also followed similar framework as the EU regulations on defining the relevant market. The analysis in the Guideline was pretty in depth; however the enforcement of defining the relevant market on merger cases in practice was far behind the provisions on the Guideline. In this section, suggestions to China merger control practice will be given based on the analysis of published case decision from the MOFCOM. Chinese legislature will learn a lot from foreign jurisdictions especially from the experience of the EU. On May 6th 2004 the Ministry of Commerce of China and the Directorate General for Competition of European Commission reached an agreement on a structured dialogue on competition of which the terms of reference.⁷⁸ It established a permanent mechanism for consultation and transparency between China and the EU in the competition field. Carried out through the EU-China Trade Project, this agreement will definitely enhances the EU's role of technical and capacity building assistance to China.

⁷⁷ Guideline of the Anti-monopoly Committee of the State Council for the Definition of the Relevant Market was promulgated on the 24th May 2009 and took effect on the same day. The official Chinese version is available at <http://fdj.mofcom.gov.cn/article/j/200907/20090706384131.shtml> and the unofficial English translation version is available at http://www.cuplge.com/info_show.asp?news_id=30705. Hereinafter referred as Guideline.

⁷⁸ Terms of Reference of the EU-China Competition Policy Dialogue, on May 6th 2004. Key documents and speeches in establishing the bilateral relations are available at: http://ec.europa.eu/competition/international/bilateral/china_tor_en.pdf.

4.1.1 Taking more Factors into Consideration in practice when defining the relevant product market

As provisions in the Guideline, the relevant market refers to ‘a market comprised of a group or a category of commodities that are considered by consumers to have a relatively strong substitution relationship based on the characteristics, uses and prices of the commodities. These commodities have a relatively intense competitive relationship, and it may be considered as the commodity scope within which business operators compete with each other in the anti-monopoly law enforcement’.⁷⁹ The factors in consideration were listed in the provisions, including the evidence in the recent past, physical characteristics and intended use, price different, distribution channel, consumer preference and other important factors. However the factors to be considered shall include but not limited to the scope of those mentioned above.⁸⁰

It is a step by step progress to develop the definition of the relevant product market. In the first published case *Inbev/ Anheuser-Bush*⁸¹, the definition of the relevant product market was even not mentioned. It is in the case *Mitsubishi Rayon/Lucite*⁸² that the definition of relevant market was firstly established in the published merger control decisions.

‘The main overlapping part in manufacturing and distribution between Mitsubishi and Lucite China is MAA. Besides that, the companies have a relative small scope of overlap in producing SpMAs, PMMA particles and PMMA sheet.

In this concentration, the effects in competition are limited in other three

⁷⁹ Article 3, Guideline.

⁸⁰ Article 8, Guideline.

⁸¹ Announcement MOFCOM [2008] No.95 *Inbev/ Anheuser-Bush*.

⁸² Announcement MOFCOM [2009] No.28 *Mitsubishi Rayon/Lucite*.

products except MAA.⁸³

Defining the relevant market as overlapping product market by MOFCOM appeared in the case *Pfizer/ Wyeth*.⁸⁴ In the following cases, the effect of substitution was examined. In case *Uralkali/ Silvinit*, the MOFCOM defined potassium chloride as a relevant product market, given its unique product feature and usage which cannot be substituted by other potassic fertilizers or vice versa⁸⁵. In case *Savio/ Penelope*, the MOFCOM defined the market of electronic yarn clearers for automatic winders as a separate market, since the authority found its functions could not be substituted by other devices during the competition investigation.⁸⁶ However, the factors that considered in the assessments were absent, as well as further reasoning on definition of the relevant market.⁸⁷

In case *GE/ Shenhua*, the licensing market of coal-water slurry gasification technology constituted the relevant product market since coal-water slurry gasification technology differs significantly from that of others, which based on requirements for raw coal, feeding method and so on.⁸⁸ In case *Seagate/Samsung*, HDD constituted a separate product market as: It differs from solid-state hard drives, flash drive and other

⁸³ Section IV, *Ibid*.

⁸⁴ In Para. 1 Section IV, relevant products markets in this transaction are defined as human drugs and animal health products. Products of merging parties overlap in the domestic market of China in: (1) human drugs, including JIC and N6A (2) animal health products, including Mycoplasma Pneumonia of Swine (MPS), Swine Pseudorabies Vaccine (SPV) and Combination Vaccine for Dogs (CVD). Announcement of MOFCOM [2009] No.77, *Pfizer/Wyeth*.

⁸⁵ Para.2 Section II, Potassium chloride is primarily used as potassic fertilizer. Potassic fertilizers include at least potassium chloride, potassium sulphate, potassium nitrate, potassium dihydrogen phosphate and potassium magnesium of sulphate. Potassium chloride is generally used as raw material for other forms of potassic fertilizer and compound fertilizer. Announcement of MOFCOM [2011] No.33 *Uralkali/Silvinit*.

⁸⁶ Para. 3 Section II, It has the unique function of expeditiously treating yarn defects in an extremely short time; other devices are unable to do so. Announcement MOFCOM [2011] No.73 *Savio/Penelope*.

⁸⁷ Li Yuanshan, A Critical Evaluation of the Analysis of Horizontal Mergers under the Anti-Monopoly Law in China. (2013) University of Glasgow, pp.56.

⁸⁸ Para. 3 Section IV. Announcement MOFCOM [2011] No.74 *GE/Shenhua*.

secondary storage devices in terms of volume, price, purpose etc. HDDs are customarily further categorized by reference to their end use including enterprise HDDs, desktop HDDs, mobile HDDs and consumer electronics HDDs.⁸⁹ However, the assessment did not analyze the substitutive relationship of these four sub-industries. In case *Henkel HK/ Tian De* products involved in this concentration were ethyl cyanoacetate, cyanoacrylate monomer and cyanoacrylate adhesives. With the consideration of the product physical characteristics, manufacturing process, intended use and other factors, MOFCOM decided that ethyl cyanoacetate, cyanoacrylate monomer and cyanoacrylate ester adhesives do not have significant substitutive effects to others and constituted separate relevant product markets.⁹⁰ In case *UTC /Goodrich*, the listed factors which were taken into consideration included physical characteristics of the product, intended use, manufacturing condition and the tender practice of downstream customers, but the analysis on each factor was missing from the assessment.⁹¹

For the practice of Chinese merger control, reflecting from the published cases from the MOFCOM, the ability of defining the relevant market is relatively low at the present stage. In the most published cases, the scope of the relevant product market is limited to the overlapping products, and the definition of the relevant market is defined even before the competition investigation. The intuitive factors which concern the definition of the relevant product market are quite limited, such as physical characteristics, intended use, and manufacturing process, while some other important factors are rarely mentioned such as consumer preference, brand loyalty, public procurement and so on. From the EU experience, the scope of the relevant product market is far more than the overlapping products. Moreover, considering only product characteristics and intended use of the product is insufficient to examine whether products under concern are substitutive. In summary, more substantial factors should be

⁸⁹ Para. 2 Section II. Announcement MOFCOM [2011] No.90 *Seagate/Samsung*.

⁹⁰ Para. 2 Section II. Announcement MOFCOM [2012] No.06 *Henkel HK/Tiande*.

⁹¹ Para. 2 Section II. Announcement MOFCOM [2012] No.35 *UTC /Goodrich*.

taken into concern and the further explanations on each factor are required.

4.1.2 Providing reasoning on Defining the Relevant Geographic Market

The definition of relevant geographic market illustrated in the Guideline is: ‘a scope of geographic areas within which consumers can acquire commodities that have a relatively strong substitution relationship. Such areas have a relatively intense competitive relationship with each other, and it may be considered as the geographic scope within which business operators compete with each other in the anti-monopoly law enforcement’.⁹² The factors considered from the perspective of demand substitution including the evidence of the rent past, transport costs, product features, distribution channels, trade barriers and other important factors such as tariff, local regulations, environmental protection and technology.⁹³ According to the provision list of the factors is not limited to those mentioned above. However, in practice, the definition of the relevant geographic market is just final definition without further reasoning or explanation.

In the first two published cases *Inbev/ Anheuser- Bush*⁹⁴ and case *Coco Cola/ Huiyuan*⁹⁵, no specific definitions of the relevant geographic market. From the published assessments, we could infer that the definition of the relevant geographic market was China market. However, this definition was criticized by the scholar, especially in the case *Inbev/ Anheuser-Bush*, they believe the relevant geographic market was narrow than the whole China market. As the claimed ‘Beer is sold to consumers in regional geographic markets through a special distribution system in

⁹² Article 3, Guideline.

⁹³ Article 9, Guideline.

⁹⁴ Section III, in order to reduce the anti-competitive effects on China’s beer market. Announcement MOFCOM [2008] No.95 *Inbev/ Anheuser-Bush*.

⁹⁵ Para.3 Section IV, constituting negative competitive effect on China’s Juice industry further development. Announcement MOFCOM [2009] No.29 *Coco Cola/ Huiyuan*.

which the breweries sell beer to distributors, which, in turn, sell to retailers. The distributors' contracts with brewers contain territorial limits and prohibit the distributors from selling beer outside their respective territories. Because the distributors cannot sell a brewer's products outside their territories without violating their contracts with the brewer, brewers can charge different prices in different regions for the same package and brand of beer, and individual distributors (and retailers) cannot defeat such price differences through arbitrage. In other words, due to such contractual arrangements, the relevant geographic beer market should be defined as regional'.⁹⁶

The specific definitions were came up in the following case, either China market or global market, but the explanations were absent from the assessments.⁹⁷ Case *Novartis/Alco*⁹⁸ was a big step forward, since the market share in China and global were set out separately. The MOFCOM was focus on the investigation on China market. In case *Uralkali/ Silvini* and case *Savio/ Penelope* the assessments stated the concentrations might have substantial effect in either China market or global market.

The first explanations on the definition of the relevant geographic market appeared in Case *GE/ Shenhua*, 'Since the operational scope of the expected joint venture merger is in China, and domestic buyers of coal water slurry gasification technology only consider its suppliers inside China, the relevant geographic market for this concentration is the China market'.⁹⁹ In the case *Seagate/ Samsung*, global market was defined as the relevant geographic market with the reasoning that the procurement and

⁹⁶ X Zhang and V Zhang, Chinese Merger Control: Patterns and Implications, (2010) Volume 6 Issue 2, E.C.L.R., pp. 482-486.

⁹⁷ Case *Mitsubishi Rayon/ Lucite* MOFCOM [2009] No.28; Case *Motors/ Delphi* MOFCOM [2009] No.76 ; Case *Pfizer/ Wyeth* MOFCOM [2009] No.77, the relevant geographic market was defined as China market. In Case *Panasonic/ Sanyo* MOFCOM [2009] No.82, the relevant geographic market was global market.

⁹⁸ Para.2 Section IV, *Novartis/ Alco* MOFCOM [2010] No.53.

⁹⁹ Para. 3 Section II, Announcement MOFCOM [2011] No.74 *GE/ Shenhua*.

supply of HDDs were in a world-wide basis.¹⁰⁰ The historical evidence of the international trading was raised as the reason in case *Henkel HK/ Tiande* to define the relevant geographic market as global market.¹⁰¹ In case, *Marubeni/Gavilon*, the MOFCOM outlined factors relied on to delineate geographic market, namely trade flows, consumption habits, transport and imports. However the market situation of each factor was not clarified.¹⁰²

In a word, in the assessments of the MOFCOM, the definition of the relevant geographic market is mentioned. And in many cases, several factors may affect the definition of the relevant geographic market were illustrated. But, there were no detailed explanations or analysis on each factor for further reference. In this stage of the MOFCOM performance on defining the relevant geographic market, it is either China market or global market, not specific enough based on the certain cases. For example, within the scope of the Association of Southeast Asian Nations, there are free of tariffs, so that for the concentrations happened in this area, the relevant geographic market might be wider than China market.

4.1.3 Considering Supply-side Substitution when Necessary

The demand-side substitution has the priority during the investigation of concentration in China. The MOFCOM is mainly considering the demand-side substitution, which is similar to the practice of EU, and only take supply-side substitution when necessary. According to the Guideline, ‘the method for defining the relevant market is not the only one. In the practice of anti-monopoly law enforcement, different methods may be used for different circumstances. When defining the relevant market, demand substitution analysis can be conducted based on the characteristics, uses and price of commodities,

¹⁰⁰ Para. 2 Section II -(a), Announcement MOFCOM [2011] No.90 *Seagate/ Samsung*.

¹⁰¹ Para. 2 Section II, Announcement MOFCOM [2012] No.06 *Hankel HK/Tiande*.

¹⁰² Para. 2 Section II-(b), Announcement MOFCOM [2013] No.22 *Marubeni/ Gavilon*.

and supply substitution analysis can be conducted when necessary'.¹⁰³ 'To define the relevant market from the perspective of supply, usually the following factors shall be considered: the evidence on other business operators' response to changes in the price or any other competitive factor of commodities; the production flow and technique of other business operators, the difficulties for them to change the line of production, the time needed for changing the line of production, the extra costs and risks in changing the line of production, the market competitiveness and marketing channels of the commodities provided after the line of production is changed, etc'.¹⁰⁴ However, there are no clear standards of what constitutes the supply substitution analysis is 'necessary', which makes the application of supply-side substitution in practice very obscure and not able to be operational.

Up to now, among all the published cases, not a single concentration investigation has taken supply-side substitution as a consideration when defining the relevant market, which will lead to a narrower scope of the relevant market than reality. The controversial case *Coco Cola/ Huiyuan* was a typical example which should consider supply-side substitution during the process of defining the relevant market. In juice industry the production from the supply side can be very flexible. It is not difficult for the supplier to change the juice content to manufacture different kind of juice products in order to adjust to the different requirements of consumers. Besides, switching production to the relevant products will not incurring significant additional cost and can be made in a very short time. If the supply-side substitution was taken into consideration in this case, the scope relevant product market would be wider, as a return, the decision on this case might be different.

4.1.4 Applying Various Analytical Measures on Market Definition

¹⁰³ Article 7, Guideline.

¹⁰⁴ Article 8, Guideline.

Defining the relevant market is a highly professional technique required issue, which combines the knowledge of law, economy, statistics and the specific background knowledge related to the certain industry which under consideration. According to the provision of the Guideline, ‘the method for defining the relevant market is not the only one. In the practice of anti-monopoly law enforcement, different methods may be used for different circumstances. When defining the relevant market, demand substitution analysis can be conducted based on the characteristics, uses and price of commodities, and supply substitution analysis can be conducted when necessary’.¹⁰⁵ In the Guideline, the SSNIP test is also referred,¹⁰⁶. However, since the establishment of the Guideline; the SSNIP test has never been applied in the case decisions by the MOFCOM. The main reason might be that the Chinese government is not ready to deal with the limitations of the SSNIP test which is also mentioned on the Guideline.¹⁰⁷ The other reason for the limited use of the SSNIP test is because the level of transparency of information is relatively low in China, it is hard to get sufficient data to conduct of the test. Whereas, the SSNIP test is widely applied in competition assessment in the global perspective providing useful evidence for merger investigations. Thus, the skill of applying the SSNIP test must be improved in China. Besides that, various analytical measures aiming to define the relevant market should be applied in practice to improve the level of enforcement of the AML.

¹⁰⁵ Article 7, Guideline.

¹⁰⁶ Article 10, Guideline. ‘Usually, the relevant product market is firstly defined with the hypothetical monopolist test. Starting with the product (initial product) supplied by the business operator subject to the anti-monopoly examination, it hypothesizes that the business operator is a monopolist aiming at profit maximization (hypothetical monopolist), and then the issue to be analyzed shall be, under the precondition that the sales conditions of other products remain unchanged, whether the hypothetical monopolist is able to continuously (normally one year) increase the price of the target commodity to a small extent (normally 5% to 10%). Rise in price of the target commodity will result in demanders’ switching to other products which have a strong substitution relationship with the initial product and consequently lead to the decrease of the sales volume of the hypothetical monopolist. If, after the price of the initial product increases, the hypothetical monopolist still has a stand to profit even the sales volume drops, the initial product constitutes the relevant product market’.

¹⁰⁷ Article 11. Guideline.

4.2 Increasing the Transparency on both Progress and Case Decisions

Transparency is an important issue in government process, which means the ability of the public to see and understand the workings of the merger review process of market definition. It requires fair and responsive explanation of the anti-trust enforcers' action and inaction.¹⁰⁸ As discussed above, in the competition law enforcement, the anti-trust authority enjoys a large range of discretion, thus the transparency of authority process on merger control is becoming even more crucial. Transparency of merger analysis enhances knowledge and compliance with the law and limits political interference and arbitrary activity in competition matters.¹⁰⁹ In China, the case decisions have no legal force under Chinese legal framework; however the requirement for transparency of merger control is concordantly accepted. Transparency of the reasoning process from anti-trust authority will improve the predictability of the merger control result and make the decisions more convincing by the public. The EU Commission expects to increase the transparency of its policy and decision-making in the area of competition policy¹¹⁰ and also illustrate in the case decisions.¹¹¹

4.2.1 Improving Transparency on Case Decisions

Compared to the EU Commission, the level of transparency in China on the case decisions is relatively low. Among all published case of MOFCOM, eleven transactions were also reviewed by the EU Committee. All these eleven cases were approved with restrictive conditions. At the same time, from the EU dimension, four cases were

¹⁰⁸ R Pitofsky, Comments on Warren Grimes: Transparency in Federal Antitrust Enforcement, (2003) Volume 51, *Buffalo Law Review*, pp.995.

¹⁰⁹ C S Rusu, A Few Considerations regarding Transparency and Legal Certainty in European Merger Control, (2007) Issue 2, *Studia Universitatis Babeş-Bolyai Jurisprudentia*, pp.180-196.

¹¹⁰ Article 4, Notice.

¹¹¹ Para.100, Case T-199/99 *Sgaravatti Mediterranea Srl v Commission* [2002] E.C.R. II-2289.

approved with outright clearance, and seven cases got clearance with commitments.¹¹²

4.2.1.1 Transparency on Decisions without commitment

The MOFCOM is not required to publish its reasoning of the decisions when the mergers are cleared without commitment. According to the provision of ALM, ‘where the Anti-monopoly Authority under the State Council decides to prohibit a concentration or attaches restrictive conditions on concentration, it shall publicize such decisions to the general public in a timely manner’, which means if the merger activity is approved without commitment, there would be no obligation to publish reason of the decision. The MOFCOM will publish a list of merger cases without commitment every season, but only with the name of the merger parties and the date of the transaction getting approved.¹¹³ The same situation in the EU is that more information is required to be published and much higher level of transparency. In the EU, the Commission needs to publish a brief statement on the decision of outright clearance. The statement contains identifications of the parties, nature of the transactions as well as definition of the relevant product market and the relevant geographic market. This statement does not need to include information in detail, especially the reasons for the decision. However, the basic information related to the mergering activity will be mentioned, such as the effects on the structure of the certain industry, the affected market, and the factors considered in the substitution test and the extent of the overlapping part of the merger parties.¹¹⁴

¹¹² Comparisons of merger assessments in the EU and China on the same cases are presented in the Appendix.

¹¹³ On 6th January 2013 the MOFCOM published its merger cases without commitment during the last quarter of 2012 for the first time. Since then, outright cases are published on the MOFCOM’s official website at the end of every season. Before 2013 there was no information regarding transactions which were cleared outright by the MOFCOM.

¹¹⁴ Case COMP/M.5778 Novartis/Alcon [2011] O.J. C20/8.

Some scholars may think that publishing statements on every transitions even including the cases with outright clearance can be imprudent and tremendously burdensome, and would result in hundreds of cursory opinions that provide little guidance to the public'.¹¹⁵ However, considering the very first stage of the practice of China AML, the consistency and predictability of the decisions is crucial for the further development of the AML. Publishing basic information of the case decision which approved without commitment will be extremely helpful to improving the system. And it will also interest the public to scrutinize the enforcement of the authority.

4.2.1.2 Transparency on Decisions with restrictions or prohibited Decisions

In China, case decision with restrictions or being prohibited requires a published statement from the MOFCOM with reasoning of such outcome. However, the reasoning published by the MOFCOM is neither comprehensive nor profound when compared to those in the EU. For the EU side, the Commission will publish a detailed document of reasoning in merger cases which are blocked or cleared with commitments. In the EU competition assessment, the part related to defining of the relevant market always comes with an in-depth analysis, and takes large portion of papers to evaluate the various factors in the transaction. Also, the very obvious difference of the transparency on the case decisions can be revealed by the number of pages of published assessments. Normally, the length of the decision of prohibition or cleared with commitment from the EU Commission will be around fifty pages, while MOFCOM in China will come up with an assessment entirely only three to four pages.¹¹⁶ As

¹¹⁵ C S Rusu, A Few Considerations Regarding Transparency and Legal Certainty in European Merger Control, (2007), *SUBB Jurisprudential*, pp. 185.

¹¹⁶ In case decisions of *Pfizer/ Wyeth*, *Novartis/ Alcon* and *Panasonic/ Sanyo*, the Commission used 96, 58 and 45 pages respectively to illustrate the process of competitive assessment. See Case COMP/M.5476 *Pfizer/ Wyeth* [2009] O.J. C 262/1; Case COMP/M.5421 *Panasonic/ Sanyo* [2009] O.J. C322/13; Case COMP/M.5778 *Novartis/ Alcon* [2011] O.J. C20/8. Clarifying competitive assessment of these three transactions in China only took 3 and 4 pages respectively.

mentioned above, lots of information and factors are neglected by the MOFCOM, such as the evidence collected from the merger parties and the third parties. Other missing information could be: procedure of the substitution test, comprehensive introduction of the product, analysis of the background of the parties, structure of the related industry and so on. In general, the decisions published by the MOFCOM are not focus on reasoning but concluding, which is very different form the EU Commission. A complete and in-depth analysis in the competition assessment is very important for the issue of transparency in the Anti-trust law area. The reasoning comes from the assessment can be a useful reference for the further merger parties. A higher level of transparency will promote the consistency and predictability in applying regulations in merger control, and also serves as a safeguard of the misuse of the discretion by the government authority. In a word, establishing detailed competition assessment related to the definition of relevant market ‘promotes discussion and understanding of the working procedure of competition authorities’.¹¹⁷

4.2.2 The Drawbacks on Account of Lack of Transparency

Corruption is a serious issue in China and is always criticized by the public. Even though this situation is becoming much relieved after adopting a series of important measures by new government headed by President Xi, Jinping, there are still amount of corruption existing in China nowadays in various areas. For the issue of anti-monopoly examining, due to the large scope of discretion authorized to the MOFCOM and the low level of transparency of the case decisions, the possibility of corruption is obviously large. At the same time, the scandal of bribery and lobbying can be aroused if the public is not able to scrutinize the enforcement authority’s assessment on the noticed transactions. Another reason which raised public concern is that the MOFCOM is under

¹¹⁷ K R Fisher, Transparency in Global Merger Review: A Limited Role for the WTO?, (2006) Volume 11 No.327, *Stanford Journal of Law, Business, and Finance*, pp.127.

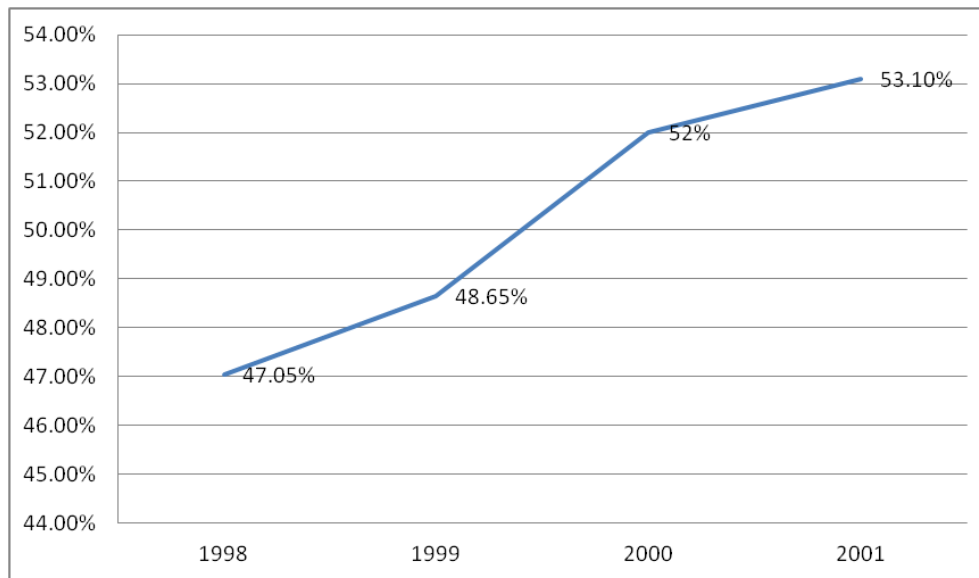
the control of the highest level of state administration. It may potentially lead to the result that ‘the MOFCOM’s decisions may introduce non-competitive considerations, which results in economically adverse effects so that an anticompetitive transaction’s being allowed, or a healthy, profitable transaction’s being blocked’.¹¹⁸

The case *SEB/ Supor* was very controversial because the transactions got clearance without commitment from the decision of the MOFCOM. Because the case was approved without commitments, the MOFCOM were not required to publish the reasoning of its decision. The assessment result could be very different if the definition of the relevant product market and the relevant geographic market changed. Background of this concentration is: Lyon-based Group SEB (EPA: SK), the world’s largest manufacturer of countertop kitchen appliances, has reportedly agreed to raise its stake in Zhejiang Supor Co. (SZ: 002032), a Hangzhou-based manufacturer of cookware and small electric house ware, from 51.31% to 71.31% to US\$526 million. After a Chinese anti-monopoly investigation, Group SEB was permitted to increase its 30% stake in Supor to a majority stake in November 2007.¹¹⁹ According to the claim of the merger parties, the relevant product market was the whole cooker market, since the pressure cookers was one kind of the cooker and should be belong to the whole cooker market as a part. The market share of Supor was not exceeding 10% and the sale volume in China was only 700 million CNY out of the whole sale volume of Chinese cooker market which was about eight to ten billion CNY. By this relevant market definition, this concentration would not substantially affect competition in Chinese cooker marker. However, if the relevant product market was defined as pressure cooker, the situation would be totally different; the effect of the transaction would be significant

¹¹⁸ Q Bu, *Coca Cola/ Huiyuan – market-economy Drive or Protectionism?* *International Review of Intellectual Property and Competition Law*, (2010) Volume 41, No.22, pp.202-210.

¹¹⁹ The MOFCOM’s decision of outright approval did not clarify any dissent of the public.
http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/us_csg_ChinaMADigest_02221_1.pdf.

and substantial. Supor's market share on the pressure cooker increased every year, and became the biggest producer in this area. The data of market share of Supor is showed below:¹²⁰



Thus the main issue of this case and the effect of the concentration was based on the definition of the relevant market: whether it is the pressure cooker or all kinds of cookers in the market. If the sales in the rural area is included, the market share should over 70 percent. From my perspective, the physical characteristics and the intended use as well as the price levels could be distinguished easily in China market. Thus, such a case decision contained a lot of opacity and raised certain suspect of corruption of the anti-monopoly authority.¹²¹

In order to prevent such controversial situation, the transparency of the case decisions must be improved. First of all, the transactions cleared without commitment should come up with at least a brief statement which is accessible to the public, including the nature of the transaction, the background of the merger parties concerned and the

¹²⁰ Data from China Industrial Information Issuing Centre.

¹²¹ Li Yuanshan, A Critical Evaluation of the Analysis of Horizontal Mergers under the Anti-Monopoly Law in China. (2013) University of Glasgow, pp. 76.

business activities, the defined relevant product and geographic market. For the cases cleared with restriction or being blocked, a much deeper analysis should be published to let the public understand the reasoning behind the decision. Some crucial information must be included, such as the structure of the relevant market, different opinions from the third parties, and competition assessment result of the substitute test. Nowadays, the MOFCOM's published decisions concerning the cases cleared with restrictions or being blocked are just at the same level of detail as the decisions for cases clearance without commitment published by the EU. So there is long way for China to improve the transparency on case decisions.

4.3 Improving the Effectiveness of Judicial Review Mechanism

The approaches to correct misjudging of the concentration merger are divided into two hierarchies. 'where any party concerned objects to the decision made by the anti-monopoly authority in accordance with Article 28 and Article 29 of this Law, it may first apply for an administrative reconsideration; if it objects to the reconsideration decision, it may lodge an administrative lawsuit in accordance with law'.¹²² The effectiveness of administrative reconsiderations and administrative lawsuit have crucial meanings for the application of the competition law, and that will be an obligatory step for the further development of China's AML.

4.3.1 Administrative Reconsideration

There is almost eight years since the application of the AML, however, not a single administrative reconsideration has been raised according to the decision of concentration. This astonishing fact has already shown the ineffectiveness of

¹²² Article 53, AML. Article 28 and Article 29 AML is about concentration being prohibited or approved with restrictions.

administrative reconsideration. This progress is only written on paper, but not used in practice to correct the faults of the concentration decisions. It is understandable that there is no regulation or procedure is perfect, so will be the concentration investigation. That is why the ex-post measures are important, which can fix the flaw of the original regulation. The ineffectiveness of administrative reconsideration and the absence of the application could be summarized in three reasons illustrated below.

First of all, the authority which carries on the reconsideration on the concentration case belongs to the MOFCOM too. In the MOFCOM, the Administrative Monopoly Bureau is to accept and review the applied concentration and the Department of Treaty and Law in the MOFCOM undertakes the administrative reconsideration of merger control. They are under the same control: MOFCOM. No wonder that they would like to maintain the consistency of the MOFCOM's decisions. What is more, the mentioned authorities are all in the system of the State Council, which has the mission of protecting the security of social economy and maintain market completion in order, so they seem not willing to overturn the decisions contradicting to this mission.¹²³

Secondly, there is no specific detailed guidance on the procedure of administrative reconsideration on concentration; the request of reconsideration should be apply according to Administrative Reconsideration Law generally. However the problem is that the reconsideration on concentration requires lots of professional skills in the relevant areas and abound evidence/ information to be investigated. The Administrative Reconsideration Law only illustrates the general process, but not the specific criteria which can be applied in the assessment as reference. The substantial part of the

¹²³ Article 85, Constitution of the People's Republic of China, 2004. 'the State Council, that is, the Central People's Government, of the People's Republic of China is the executive body of the highest organ of state power; it is the highest organ of State administration'. And Article 89, 'the State Council exercises the following functions and powers: (3) to formulate the tasks and responsibilities of the ministries and commissions of the State Council, to exercise unified leadership over the work of the ministries and commissions and to direct all other administrative work of a national character that does not fall within the jurisdiction of the ministries and commissions'.

application of administrative reconsideration is missing, so its effect is much less convincing.

Thirdly, the enforcement of the reconsideration is not guaranteed in practice. The result of the reconsideration is not the final decision even if the reconsideration reflects there is an error in the former merger assessment. Within the administrative system in China, the superior governments have authority to change the decision of administrative reconsideration by signing official documents. In addition, during the investigation process, the staff who performs investigation does not have the authority to make decision. All decisions should be made by the head of the Department of Treaty and Law, who is not involved in the investigation directly and have limited information on the background of the case.

Considering all the reasons mentioned above, the effectiveness of the administrative reconsideration on concentration must be improved. Because of the high demand of professional skills on the concentration investigation, a guideline which applied specifically on merger decisions should be filed. Meanwhile, more authority should be granted to the staff that is actually carrying out the investigation in order to make decisions based on direct evidence. Moreover, the authorities should its governmental perspective, and re-examine the case from a sight of social economic market.

4.3.2 Administrative Lawsuit

Provision for administrative lawsuit of concentration decisions is set out in the Administrative Procedure Law. At present, the most serious problem of China' judicial review is the courts' legal authority is not independent of executive power.

The interpretation from the Supreme Court of China states that the court should respect

the demarcation of executive power and judicial review according to the Constitution. Thus, courts are reluctant to initiate a further analysis if the case is related to the issue such as the public interests, the discretion of the executive department, policies orientated by local governments and other local restrictions published by local administrative authorities. More straightforwardly, the implementation of the judicial review by the Courts is kidnapped by the government. A lot of scholars criticize this situation and point out that when it comes to the administrative lawsuit, the courts become government organs just happening to fulfill the judicial functions.¹²⁴ Thus, the judicial review must be independent from the governments if the effectiveness of administrative lawsuit on concentration wants to be improved. The provision in the Constitution law must be implemented into practice and leave a free and independent space for judicial review.¹²⁵

¹²⁴ M U Killion, Post-WTO China and Independent Judicial Review, (2004), Volume 26 No.3, *Houston Journal of International Law*, pp. 507-559.

¹²⁵ Article 126, Constitution of the People's Republic of China 2004, 'the people's courts exercise judicial power independently, in accordance with the provisions of law, and not subject to interference by any administrative organ, public organization or individual'.

Chapter 5 Conclusion

China established the AML in 2008 and opened a new epoch for China's competition law. Before the AML, China's merger control was rather limited to the scope of SOEs or enterprises with foreign investment. There was no comprehensive merger control system in China and the objectives were opaque including those not aiming at anti-monopoly. A systematic legislation in antitrust area, such as the AML, was highly expected. The AML was a milestone of China's competition legislation and being the very first comprehensive competition law of China. The AML collected various regulations scattered in different levels and regions and gather them into a convergent legislation with higher level of force. The AML built the framework of China's social market competition order, and provided legal bases for the business activities in social market economy.

EU competition law is one of the most important references for the establishment of the AML. There are many similarities between EU and China of the core points in competition regulation and practice. Firstly, both EU and China take protecting customer welfare as the very crucial objective. Secondly, the enforcing authorizes are similar in EU and China from their functions, executive power and statues in merger control. Thirdly, the objective on establishing an integrated market is similar. EU works on building up a single market without internal frontiers among member states, while China looks forward to break the barriers of different regions and establishes an integrated national market. EU has abundant experience in merger control for decades of practice, thus China can learn a lot of EU, especially at this beginning stage of China's AML.

A proper definition of the relevant market is the first step as well as the key step of

merger assessment. The relevant market contains the relevant product market and the relevant geographic market. The MOFCOM showed a fast learning ability during the almost eight years establishment of the AML, however the way of defining relevant market by the MOFCOM is not further developed in this period, and the experience of EU Commission is a helpful reference for the China government to learn from. When defining the relevant market, EU takes demand side substitute as an essential aspect, considering various factors including physical characteristics, intended use, different pricing, consumer preference, as well as opinions from third parties, consumer feedback and evidence from the recent past. From the MOFCOM's published cases, not so many factors are taken into consideration. In some cases, the relevant product market was defined as the overlapping product market and the substitute analysis was not provided deeply enough. The physical characteristics and the intended use are considered as crucial factors; however from the EU case law it is not sufficient for a proper definition of relevant product market.

The Commission investigates the supply side substitute when constituting enough restrictions on competition, which is also raised in case decisions. Even though supply side substitute is illustrated in the China's provisions, it is not applied in practical cases. The Commission has a developed comprehension on when and how to investigate in supply side from its case decisions which needs to be learned elaborately by the MOFCOM.

When defining the relevant geographic market, the Commission will come up with detailed analysis considering competition circumstances, transportation cost, price difference, trade flows, consumer preference and so on. In China, the MOFCOM will only listed relevant geographic market either China market or global market without further explanation.

Alongside the development of EU competition assessment various qualitative and quantitative analysis methods are applied in the competition investigations. And multiple economic methods are used as tool to define the scope of a relevant market, including residual Demand Curve Theorem, Price Relevance Theorem, Elasticity Theorem and especially the SSNIP Test. This method is applied in competition assessment worldwide and become an important recourse for the definition of the relevant market. In the published document of the MOFCOM, the SSNIP Test is also mentioned, but not applied in practical case either.

Compared with the experience of EU in defining the relevant market, some suggestions are proposed for the further development of the MOFCOM.

First of all, the techniques of defining the relevant market should be improved and comprehensive analysis of the reasons for the definition of the relevant market should be illustrated in the case decision. The MOFCOM should take more factors into considerations during the assessment, like involving consumer opinions and their preference. The reasons for the definition of the relevant geographic market are required, since the market competition circumstances are quite complicated, a simple decision of either China market or global market is not enough. Supply side substitution is also a crucial factor in certain case and industry. By Learning from developed competition regime, the MOFCOM could try to apply various analytical measures on market definition in practical cases and improved the level of using those methods step by step.

Secondly, increase the transparency on competition investigation and case decision. The level of information release is relative low of the MOFCOM comparing to the EU. A lot of crucial information is not noticed to the public during the investigation and some parties which may have relationship with the case cannot be involved into the

investigation. The transparency of the case decision is also expected to reach a higher level. The cases approved without restriction should come up with a brief case decision but not only a list of parties name and approving date. The cases approved with restrictions or being blocked should be present with more detailed assessments with profound reasoning to convince the public about its decision. Lack of transparency is harmful to the development of China's social market competition, leaving the space for the lobbying.

Thirdly, the government should work on the effectiveness of judicial review. The approach to correct misjudging of the concentration merger is divided into two hierarchies, namely administrative reconsideration and administrative lawsuit. Unfortunately, neither these two approach are effective. Administrative reconsideration is charged by the department which also in the control of the MOFCOM. The administrative lawsuit is always criticized for its ineffectiveness since the courts' legal authority is not independent of executive power.

**Appendix 1 the Statistics of Mergers Notified from the
MOFCOM¹²⁶**

Year	Notifications	Filing accepted	Completed reviews	Withdrawn	Unconditional clearance	Conditional clearance	blocked
2008			17		16	1	0
2009			80			4	1
2010			117			1	0
2011	203	185	168	5	159	4	0
2012	201	186	154	6	142	6	0
2013-1					45	0	0
2013-2					56	2	0
2013-3					54	2	0
2013-4					56	0	0
2014-1					45	1	0
2014-2					68	2	1
2014-3					48	1	0
2014-4					75	0	0
2015-1					62	1	0

¹²⁶ Statistics between 2008 and 2012 is from the article M Furse: Merger Control in China: Four and a Half Years of Practice and Enforcement-A Critical Analysis, *World Competition: Law and Economics Review*, Volume 36, Issue 2 (2013).

Appendix 2 Horizontal Merger Control in both China and EU

Horizontal merger parties	Decision of the MOFCOM	Date of the MOFCOM Decision	Decision of the Committee	Date of the Committee Notification
<i>Pfizer/ Wyeth</i>	Conditional clearance	29.09.2009	Clearance with commitments	29.05.2009
<i>Panasonic/ Sanyo</i>	Conditional clearance	30.10.2009	Clearance with commitments	11.08.2009
<i>Novartis/ Alcon</i>	Conditional clearance	13.08.2010	Clearance with commitments	18.01.2010
<i>West Digital/ Viviti Technologies</i>	Conditional clearance	02.02.2012	Clearance with commitments	23.11.2011
<i>UTC/ Goodrich</i>	Conditional clearance	15.05.2012	Clearance with commitments	26.07.2012
<i>Glencore International/ Xstrata</i>	Conditional clearance	16.04.2013	Clearance with commitments	22.11.2012
<i>Marubeni/ Gaviion</i>	Conditional clearance	23.04.2013	Outright clearance	24.08.2012

Bibliography

Books

D.Besanko, D. Dranove, M. Shanley and S. Schaefer: *Economics of Strategy* (third edition), *Wiley Press*, (2003).

M. Dabbah and QC.Lasok: *Merger Control Worldwide*, *Cambridge University Press*, (2005).

D.W. Cheng: *An Exploration of China's Legislation on Competition, Enlightenment from the EU*, *Social Sciences Academic Press*, (2006).

程卫东: 中国竞争法立法探要, 欧盟对我们的启示 《社会科学出版社》。

A. Lindsay: *The EC Merger Regulation: Substantive issues* (second edition), *Sweet & Maxwell Press*, (2006).

P. Roth and V. Rose: *European Community Law of Competition* (sixth edition), *Oxford University Press*, (2008).

S. Bishop and M. Walker: *The Economics of EC Competition Law: Concepts, Applications and Measurement* (third edition), *Sweet & Maxwell Press*, (2010).

X. Zhang: *Competition Policy and Regulation: Recent Developments in China, Europe and the US*, *Edward Elgar Publishing*, (2011).

R. Whish & D. Bailey: *Competition Law* (seventh edition), *Oxford University Press*, (2012).

Christian A. Melischek: *The Relevant Market in International Economic Law: A Comparative Antitrust and GATT Analysis*, Cambridge University Press, (2013).

Report on Competition Law and Policy of China 2014, WTO Research Association Committee of Competition Policy and Regulation of China, etc. *Law Press China*, (2014).

中国竞争法律与政策研究报告（2014 年）中国世界贸易组织研究会竞争政策与法律专业委员会等编著 《法律出版社》。

X.Y. Hua: *Market Definition in the Antitrust Law*, Social Sciences Academic Press, (2014).

王晓晔：反垄断案件的相关市场界定 《社会科学出版社》。

Articles

G.J. Stigler and R.A. Sherwin: *The Extent of the Market*, *Journal of Law and Economics* (1985) Volume 28, No.3 (1985) pp.555-585.

J.B. Baker and T.F. Bresnahan: *Estimating the Residual Demand Curve Facing a Single Firm*, *International Journal of Industrial Organization*, volume. 6, (1988) pp. 283-300.

J.J. Simon and M.A. Williams: *The Renaissance of Market Definition*, *Antitrust Bulletin*, Volume. 38, No. 4 (1993), pp. 46-57.

P. Crowther: *Product Market Definition in E.C. Competition Law: the Compatibility of Legal and Economic Approaches*, *Journal of Business*, Volume 3 (1996) pp.

179-186.

A. Criscuolo: Commission Notice on the definition of relevant market: a change of policy? *EU Focus*, Volume 4 (1998) pp.2-4.

P. Massey: Market Definition and Market Power in Competition Analysis: Some Practical Issues, *Economic and Social Review*, Volume. 31, No. 4, (2000) pp. 231-245.

P. Crocioni: The Hypothetical Monopolist Test: What It Can and Cannot Tell You, *E.C.L.R.*, Volume 23, No.7 (2002) pp. 354-362.

A. Lindsay, E. Lecchi, and G. Williams: Econometrics Study into European Commission Merger Decisions since 2000, *E.C.L.R.*, Volume 24, Issue 12 (2003) pp. 673-682.

R Pitofsky: Comments on Warren Grimes: Transparency in Federal Antitrust Enforcement, *Buffalo Law Review*, Volume 51, (2003) pp. 995.

R.W. Crandall and C. Winston: Does Antitrust Policy Improve Consumer Welfare? Assessing the Evidence, *Journal of Economic Perspectives*, Volume17, No. 4 (2003) pp. 3-26.

C. Bai, Z. Tao and S.Y. Tong: Local Protectionism and Regional Specialization: Evidence from China's Industries, *Journal of International Economics*, Volume 63 (2004) pp.397-417.

W.P.J. Wile: The Combination of the Investigative and Prosecutorial Function and the

Adjudicative Function in EC Antitrust Enforcement: A Legal and Economic Analysis, *World Competition: Law and Economics Review*, Volume 27, No.2 (2004).

M U Killion: Post-WTO China and Independent Judicial Review, *Houston Journal of International Law*, Volume 26, No.3 (2004) pp. 507-559.

D.J. Gerber: Constructing Competition Law in China: The Potential Value of European and U.S. Experience, *Washington University Global Studies Law Review*, Volume 3, Issue 2 (2004) pp. 315-331.

K. Fountoukakos and S. Ryan: A New Substantive Test for EU Merger Control, *E.C.L.R.*, [2005] Volume 26, Issue 5 (2005) pp. 277.

M.F. Bayand and J.R. Calzado: Tetra Laval II: the Coming of Age of the Judicial Review of Merger Decisions, *World Competition*, Volume 28, Issue 4 (2005) pp. 433-453.

A. Christiansen and W. Kerber: Competition Policy with Optimally Differentiated Rules Instead of 'Per se Rules vs. Rule of Reason', (2006) Volume 2 Issue 2, *Journal of Competition Law and Economics*, pp.215-244

Y. Bottema: Mergers, Standard of Proof and Expert Economic Evidence, *Journal of Competition Law & Economics*, Volume 2, Issue 1 (2006) pp. 71-100.

H.H. Wu and X.Q. Shan: Discussion of Horizontal Mergers Guidelines of China, *Journal of Social Sciences*, Volume 5 (2007) pp.315-323.

吴汉洪、单向前：中国企业横向并购指南探讨 《社会科学》。

N. Attenborough: Are three to two mergers in market with entry barriers necessarily problematic? *E.C.L.R.*, Volume 28, Issue 10 (2007).

C S Rusu: A Few Considerations regarding Transparency and Legal Certainty in European Merger Control, *Studia Universitatis Babes-Bolyai Jurisprudentia*, Issue 2 (2007) pp. 180-196.

X.Y. Wang: Comment on Operators Concentration in Anti-Monopoly Law of People's Republic of China, *Law China*, Volume 1, (2008) pp. 2-7.

王晓晔：中国反垄断法经营者集中法律制度评析 《中国法学》。

E.M. Fox: An Anti-monopoly Law for China-Scaling the Walls of Government Restraints, *Antitrust Law Journal*, Volume 75, No. 1 (2008) pp. 173-194.

Z. Huo: A Tiger Without Teeth: The Antitrust Law of the People's Republic of China, *Asian-Pacific Law & Policy Journal*, Volume 10, Issue 1 (2008) pp. 32-61.

M.B. Coate and J.H. Fischer: A Practical Guide to the Hypothetical Monopolist Test for Market Definition, *Journal of Competition Law and Economics*, (2008) Volume 4, No.4 (2008) pp.1031-1063.

Y Huang: Pursuing the Second Best: the History, Momentum, and Remaining Issues of China's Anti-monopoly law, *Antitrust law Journal*, Volume 75, No. 1, (2008) pp. 117-131.

J.S. Shi: Thinking about Complement of the System of Defense against the Substantial Test of Merger Control, *The Law*, Volume 12 (2009) pp. 102-109.

史建三：完善我国经营者集中实质审查抗辩制度的思考 《法学》。

X Zhang and V Zhang: Chinese Merger Control: Patterns and Implications, *E.C.L.R.*, Volume 6 Issue 2 (2010) pp. 482-486.

X.H. Li: The Effect of Market Disseverance because of Regional Protectionism to the Market Structure, *Special Zone Economy*, volume7 (2010) pp. 289-291.

李小鹤：源于地方保护的市场分割对市场结构的影响 《特区经济》。

A. Vaishnav: Product Market Definition in Pharmaceutical antitrust cases: Evaluating Cross-Price Elasticity of Demand, *Columbia Business Law Review*, Volume 11, (2011) pp. 132-156.

M Furse: Merger Control in China: Four and a Half Years of Practice and Enforcement-A Critical Analysis, *World Competition: Law and Economics Review*, Volume 36, Issue 2 (2013) pp. 285-313.