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Research on the Current Situation and Development Path Optimization of a Unified National Market Based on Bibliometrics

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Abstract: On April 10, 2022, the Central Committee of the CPC and the State Council issued the "Opinions on Accelerating the Construction of a Unified National Market," which attracted widespread attention and discussion from all walks of life in society. A large number of research outcomes emerged accordingly. However, information overload also led to a lack of in-depth understanding and broad consensus among the public regarding the policy contents. Therefore, to provide a reference for various sectors of society, we need to conduct a systematic and comprehensive bibliometric analysis of this field. This paper utilized bibliometric analysis on 1,140 literature pieces collected in the China National Knowledge Infrastructure database. Multiple dimensions were analyzed, including the annual publication output, author collaboration patterns, institutional distribution, keywords, etc. The results showed that the research on the national unified market has progressed from "summarizing experiences from foreign unified markets" to "constructing China's national unified market." Most studies focused on exploring theoretical connotations and horizons (i.e., theoretical discussions) as well as the application of concrete measures (i.e., policy implementation). Quantitatively, with further strengthening of theoretical foundations and improving policy execution, more studies in this field will emerge in an exponential growth trend. This study systematically reviewed the development process of the national unified market and summarized literature characteristics from perspectives such as current research status, hotspots, and evolving trends. It enriched and improved bibliometric research in this domain, providing quantifiable references and insights for follow-up scholars to further advance theoretical developments and practical applications.

Keywords: a unified national market, unified market, bibliometrics, new development pattern, European unified market

1. Introduction

Over the past forty years since the reform and opening up, China has formulated a series of correct guiding policies and strategies, such as the Western Development program and Rural Revitalization, which have greatly propelled social development. By 2020, China had established a moderately prosperous society in all respects, embarking on a new era of socialism with Chinese characteristics. However, in the course of building a modern socialist country, China still faces many challenges. At present, the market-based allocation of factors needs further improvement in China. The supply structure lacks sufficient responsiveness and flexibility to demand changes. Problems such as industrial monopoly, local protectionism, and market fragmentation still exist. Under the influence of factors such as the COVID-19 pandemic, Russia-Ukraine conflict, and US Federal Reserve interest rate hikes and balance sheet reduction, China's economy faces certain downward pressure. In the face of negative impacts brought by

capital outflows, China must draw new impetus from reform and promote economic structural optimization and upgrading of industries. Therefore, China proposed the concept of establishing a unified national market, aiming to break regional protectionism and market segmentation, expand market scale and capacity, and leverage the advantages of market competition and deeper division of labor to promote high-quality economic development. The establishment of a unified national market is a fundamental support and intrinsic requirement for building a new development paradigm.

At present, although the formation and development of a unified national market have made great achievements, there are still many shortcomings and blockages. In fact, the concept of a "single big market" was first proposed by the European Community, which established the Single European Market, or internal market [1], common to all its member states in 1992 as an attempt to accelerate the process of European economic integration [2] and which is still central in the EU today [3]. The Single European Market is a market that requires the convergence of the laws of the Member States and the free movement of goods, persons, services, and capital in a system that guarantees undistorted market competition within the European Community or EU and

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that is owned, participated in, and shared by the participating Member States as a whole [4]. There is only one monetary policy in the European Single Market, which is highly unified, but its fiscal policy is exercised by each country itself, and the EU economic policy is still in a state of serious separation because each has its own interests [5]. Trade situation with technical, legal, and bureaucratic barriers is still in place 30 years after the introduction of the Single Market [6]. A unified national market is a unified national market with Chinese characteristics, which is compatible with China's socialist market system. It refers to the formation of an organic market system that is interdependent, complementary, open, and coordinated among regional markets and professional markets on the basis of full competition and the resulting social division of labor on a national scale, with four distinctive characteristics of unity, openness, competition, and orderliness [7]. Tracing the formation and development of the concept of "a unified national market," as early as 1957, at the Third Plenary Session of the Eighth Central Committee held in Zhongnanhai, China had proposed "building a unified, open, competitive, and orderly market system," and since the reform and opening up, economic work has resumed normally and the country has been working on building a unified national market [8]. In recent years, the relevant developments are shown in Figure 1. With these series of coherent understandings and deployments as the premise and foundation, in April 2022, the Party Central Committee and the State Council jointly issued the Opinions on Accelerating the Construction of a Unified National Market. This opinion not only reflects the integration of previous thinking and promotes the implementation of long-term deployment but also achieves a deepening of the cognitive content, marking a new progress in the theoretical understanding of building a unified national market [9] and indicating the direction for the construction of a unified national market.

Currently, China's development of a unified national market still faces some challenges and difficulties, such as market access barriers, unbalanced regional development, industrial monopolies, and so on. Therefore, in order to optimize the development path of the unified national market, we need in-depth research on its current situation and trends and put forward relevant suggestions and countermeasures.

This paper selects the China National Knowledge Infrastructure (CNKI) database to search the domestic literature and analyze the research in the field of a unified national market from a bibliometric perspective to answer the following questions. Firstly, what are the hot research topics in the field of a unified national market? Secondly, what is the process of development of a unified national market? Thirdly, what are the future research trends for the Unified 4Megamarket? Through these aspects of the study, we explore the problems in the establishment of a unified national market, understand the development dynamics in the field of a unified national market, grasp the focus of future research, and on the basis of this, put forward proposals for optimizing the development path of a unified national market.

2. "A Unified National Market" Research Review

Building a unified national market is not only an important reform measure to speed up the improvement of the socialist market economic system in the new era but also an important practical exploration to speed up the construction of a new development pattern [10]. The establishment of a unified national market can not only break the local protection and market segmentation, open up the key blocking points that restrict the economic cycle, but also release the market potential, stimulate the power of development, promote the smooth flow of commodity factor resources in a wider range, and ensure the smooth operation of China's economy. As the core topic of China's economic development strategy in the new era, a unified national market has aroused great concern from all walks of life. According to the national conditions and based on the present, many scholars have studied and explored this field with a pragmatic attitude. Around this hot spot, this paper will sort out the existing achievements of scholars from the following three aspects.

First, what is a unified national market? Su and Shao [11] believe that the essence of building a unified national market is to eliminate the artificial obstacles that hinder the flow of commodities and elements and to realize the free flow of goods and elements across regions and industries throughout the country. Gao [12] believes that the construction of a unified national market is a long-term and systematic project, which has a wide and far-reaching impact, and the core is to highlight the resource allocation function of the market in the space-time change. When expounding the related concepts of a unified national market, the emphasis of different scholars is different, and the unified opinions have not yet been formed, but these scholars have highly affirmed the construction of a unified national market and think that a unified national market is an important strategy related to the fate and security of the country.

Second, why do we propose a unified national market? Chen et al. [13] have discussed the important role of the national unified market construction on China's economic growth by building multi-department and multi-regional dynamic general equilibrium models. Through numerical simulation analysis, it is also found that the reform of the labor market and product circulation has been found to build a higher-level national unified market, reducing labor flow friction and product flow friction, and can further stimulate the potential of China's economic growth. Su [14] makes a comprehensive analysis of the blocking points that hinder the construction of a unified national market and puts forward that breaking the local protection and building a unified national market is a necessary option for the construction of the socialist market economy. From the different angles of quantitative and qualitative analysis, each scholar analyzes the reasons why our country puts forward the construction of a unified national market. Combined with the national conditions of our country and the theoretical viewpoints of each scholar, we can see that the construction of a unified national market is the active choice and objective requirement of our country to deal with the great changes that have not occurred in the world in a hundred years.

Third, how to build a unified national market? Taking a unified national market as the logical starting point, Zhang and Huang [15] systematically analyzed the theoretical logic of the new development pattern, analyzed the practical blocking points, and put forward the path of constructing the new development pattern on the basis of a unified national market. Liu and Kong [16] deeply analyzed the reasons for the phenomenon of market segmentation and put forward the promotion strategy in view of the particularity of the construction of a unified national market in China. Song [17] deeply analyzes the relationship between competition policy and territorial jurisdiction system and the construction of a unified national market and puts forward some policy suggestions in view of the competition policy with Chinese characteristics and doing beneficial things, eliminating the disadvantages and cracking the territorial jurisdiction system. Ding [18] combed the five problems to be solved in the construction of a unified national market and put forward that the construction of a unified national market must be

Figure 1
The formation of a unified national market

November , 2013

The Third Plenary Session of the 18th CPC Central Committee deliberated and adopted '*The Decision of Several Important Issues of Comprehensively Deepening Reform*' , it particularly pointed out that build a market system that is uniform but open, orderly and competitive is the basis for the market to play the decisive role in allocation of resources.

June , 2016

The State Council issued the '*Proposal on Establishing a Fair Competition Review System in the Market System*', requiring the establishment of a fair competition review system, and gradually cleaning up and abolishing all regulations and practices that impede the functioning of a unified national market and fair competition.

October , 2017

The Nineteenth National Congress of the Communist Party of China proposed that one of the important contents of building a modern economic system is to "build a unified, open, competitive and orderly market system."

October , 2019

The Fourth Plenary Session of the 19th CPC Central Committee proposed to build a high-standard market system, improve the fair competition system, and fully implement the negative list system for market access.

September , 2020

The eighth meeting of the Central Finance and Economics Committee clearly pointed out that it is necessary to "accelerate the improvement of the domestic unified large market, form a virtuous circle of mutual promotion of supply and demand, and simultaneous development of production and sales, shape a market-oriented, legalized, and international business environment, and strengthen the role of competition policy.

October , 2020

The Fifth Plenary Session of the 19th CPC Central Committee officially proposed to "accelerate the construction of a new development pattern where domestic and foreign markets can boost each other, with the domestic market as the mainstay " as a major strategic deployment of our country.

December , 2021

The 23rd meeting of the Central Committee for Deepening Overall Reform stressed that to build a new development paradigm, it is imperative to speed up the building of a unified national market that is efficient, standardized, open and allows fair competition. It is also vital to establish unified market rules and regulations across the country and promote the smooth flow of goods, factors, and resources on a wider scale.

April , 2022

The CPC Central Committee and the State Council jointly issued the '*Opinions on Accelerating the Construction of a Unified National Market*', which shows that the construction of a unified national market is the basic support and inherent requirement for fostering a new development pattern.

carried out accurately, deal with the relationship between the market and the government, the relationship between the market and the enterprise, the relationship between the market and the troika, the relationship between the market and intermediary organizations, and the relationship between the market and innovation. The research results on the policy design and optimization path of building a unified national market are relatively rich, but the theorization is obvious and a complete system has not yet been formed.

Combined with the existing literature, Chinese scholars have carried out research on "what is a unified national market," "why do we propose a unified national market," and "how to build a unified national market." Step by step shows the research picture of a unified national market and mainly involves the connotation implication, the construction blocking point, the realization path, and so on, and the research direction tends to be diversified. However, due to the short period of time for our country to build a unified national market from the overall and strategic point of view, the

breadth and depth of research need to be strengthened. Through a comprehensive and systematic combing of the research content and development context in this field, this can promote the construction and development of a unified national market to a certain extent.

3. Data Sources and Research Methods

3.1. Data source

The data come from the CNKI. Since the concept of "a unified national market" was formally introduced late, we used an advanced search, setting the search topics as "a unified national market" or "unified market," and the search date as July 27, 2022, for a more in-depth and comprehensive understanding of its development. After manual identification and screening, 1140 papers were selected by removing papers that were irrelevant to the research content such as conference announcements or conference abstract newsletters and papers with incomplete information on research authors and institutions. The 1140 papers were exported as Refworks, and the exported records contained authors, abstracts, keywords, year of publication, journals, and research institutions, etc.

3.2. Research method

The bibliometrics method is a quantitative analysis method that uses mathematical and statistical methods to study the growth and distribution of scientific literature [19]. Bibliometric methods include a series of empirical laws and regularities that describe the flow characteristics of documentary information. In recent years, bibliometrics has begun to shift its focus from theoretical academic research to practical applications, making the research pattern of theory-technology-application more reasonable. However, there are currently few systematic studies on literature related to the national unified market using empirical and quantitative methods.

This study will use CiteSpace software to draw a visual map to conduct an objective quantitative analysis of research institutions, authors of articles, high-frequency keywords, and other content in the national unified market field and analyze it from a multi-dimensional perspective of statistical description, cluster analysis, and topic evolution analysis. Determining the key research issues of the national unified market confirms the current development status of the national unified market from a time series perspective, making up for the subjective flaws of some current qualitative studies, and the results have a certain degree of objectivity. However, there are still shortcomings. On the one hand, the study covers a long time span and is limited by the maximum number of nodes in the CiteSpace software during data screening. In the keyword map screening, the Top 10 screening criteria may miss some documents. On the other hand, this study used CSSCI search in the CNKI database, which took into account the quality of the literature and the scale of the data. However, it was unable to use the citation analysis-related functions of the CiteSpace software and failed to carry out citation analysis.
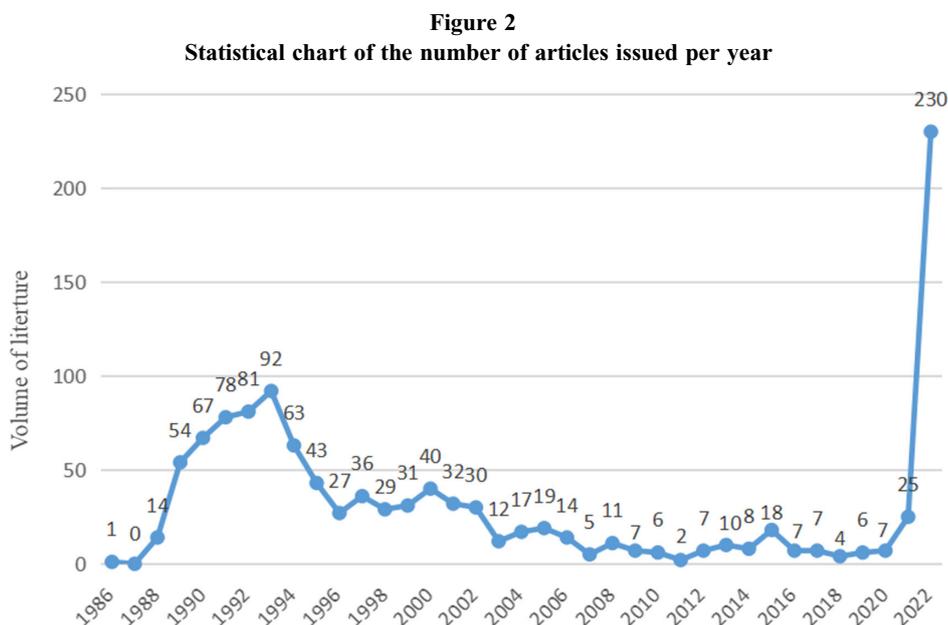
4. Research Results

4.1. Research status

4.1.1. Analysis of literature quantity

The chronological distribution of literature published in a field reflects, to a certain extent, the speed of development and activity of academic research in that field [20]. In the process of using bibliometric analysis to study a unified national market, we searched the CNKI database with "a unified national market" or "unified market" as the subject term, and the distribution of the annual number of relevant research articles is shown in Figure 2.

In the academic community, the number of publications is considered an important indicator of the development stage of the research field. By analyzing the trend of publication volume, the research heat and development stage of a certain field can be revealed [21]. As a whole, the number of articles issued before 2020 starts to decline and stabilize year by year after reaching a small peak, while starting from 2021, the number of articles issued rises rapidly, which can be roughly divided into three periods by observational studies:

1) 1986–1994 was the initial period, during which the annual number of articles published in the field of unified large

Figure 2
Statistical chart of the number of articles issued per year

market research first increased and then decreased, starting from 1986 and reaching the peak in 1993 with 92 articles per year. At the time of reform and opening up, China was facing economic and political difficulties in many aspects, with weak production capacity and insufficient consumption power. In order to resolve the contradiction between people's growing material and cultural needs and backward social production, the Party and the country urgently needed to enhance comprehensive national power. In the light of the world situation at that time, the high volume of publications at this stage was mainly related to the introduction of the "European single market" in 1992, when the EU exerted great influence on the international system through the externalization of its internal market-related policies and regulatory measures [22], and domestic scholars hoped to accumulate and absorb foreign excellent results and experiences from the course of establishing the internal single market in Europe to serve the economic construction of China.

2) 1995–2020 is the stable period, and the annual number of articles issued in this period decreases in fluctuation and tends to level off gradually, among which the number of articles issued in 2003–2020 remains at 20 and below. In the late 1990s and early 2000s, the world economic situation was turbulent and faced several economic crises, including the European debt crisis caused by the sovereign debt crisis in Greece, which exposed the institutional flaws inherent in the eurozone as a new unified monetary system with a unified monetary policy and a decentralized fiscal policy, making the EU member states generally face fiscal deficits and debt pressure [23]. At the same time, after years of reform and opening up, China has accumulated certain experience and wealth, and the economic situation is favorable, but because no clear policy has been put forward to make every effort to build a unified national market; thus, scholars at this stage have not paid enough

attention to this aspect, the volume of publications is low, and the research is more limited, and scholars need to be encouraged to increase their research efforts and use new ideas and methods to conduct research.

3) 2021–2022 is the progression period. Starting from 2021, the number of publications begins to increase rapidly, ushering in a new peak with remarkable research results, which is related to the promulgation of the Opinions of the State Council of the Central Committee of the Communist Party of China on Accelerating the Construction of a unified national market in 2022, and governments at all levels begin to vigorously promote the construction of a unified national market, stimulating domestic scholars to conduct research on the unified national market using quantitative as well as qualitative methods from multiple fields such as politics, economics, industry, and agriculture, which to a certain extent reflects the relationship between research enthusiasm and policy orientation.

4.1.2. Author analysis

The analysis of the authors of the articles enables us to understand the attention of scholars to the field of "a unified national market" and the cooperation relationship between scholars.

Nodes represent the author or the team of the author, the size of the node represents the frequency of occurrence, and the connections between nodes represent the situation of collaborative publishing. The denser the lines, the more collaborative publishing by the author. Figure 3 has a total of 220 nodes and 70 connections. The top three authors are Liu Zhibiao (6 times), Lu Ming (6 times), and An Bei (6 times). Judging from the author's cooperation network, my country's national unified market research shows the characteristics of overall dispersion and internal aggregation. The internal cooperation of each team is close, but cross-team

Figure 3
Author cooperation knowledge graph

cooperation is lacking, and cross-team and cross-disciplinary cooperation needs to be strengthened. According to the connection situation, multiple core teams have emerged in the field of national unified market research, such as the core team headed by Liu Zhibiao, the team represented by Chen Pu, Liu Kai, and Lin Yao, and the team represented by Peng Zhiwei and Zhou Xueli. The team has made significant contributions to the field. Among them, the members of Peng Zhiwei's team are closely connected, which shows that the team has many members and a close cooperative relationship. However, most authors are independent research, and scientific cooperation among the author needs to be strengthened.

4.1.3. Institutional analysis

The top fifteen institutions in terms of statistical issuance are shown in Figure 4. It can be seen that the high-yield institutions are all universities or research institutes, of which the Yangtze Industrial Economic Institute of Nanjing Universities ranks first with 46 articles. Universities are the gathering place for talents and provide intellectual support for the study of new issues, developments, and changes emerging in the society. The discipline has strong specialization, as shown in Figure 4, and the main disciplines related to the research in the national unified market field are economics and management. The distribution of research institutions in different regions indicates that research on

the "a unified national market" has been generally carried out. However, the majority of institutions have published less than two articles and have not conducted continuous research.

4.2. Research hotspots

4.2.1. Keyword co-occurrence analysis

As an important indicator term in scientific research, keywords are binding to the research topic [24] and are an important analytical index in bibliometric research. In order to explore the research hotspots and directions in the field of a unified national market, we set the time span from January 1, 1992, to May 25, 2022, the length of each slice was 1 year, and analyzed the keywords of 833 literature in the field of a unified national market. The results are shown in Figure 5. This keyword co-occurrence network contains 808 network nodes and 2634 network connection paths. Each network node represents a keyword, and the larger the keyword is displayed in the graph, the more frequently it is cited and the more likely it is to become a hot spot for research [25]. In terms of node characteristics, the keyword "Unified market" is the largest node and the core hub connecting the whole network, which is the focus of research. In terms of node content, the core keywords focus on the subjects and related policy concepts of building a unified national market, such as "Unified market," "European unified market," "North American Free Trade Area,"

Figure 4
Distribution of institutional issuance volume
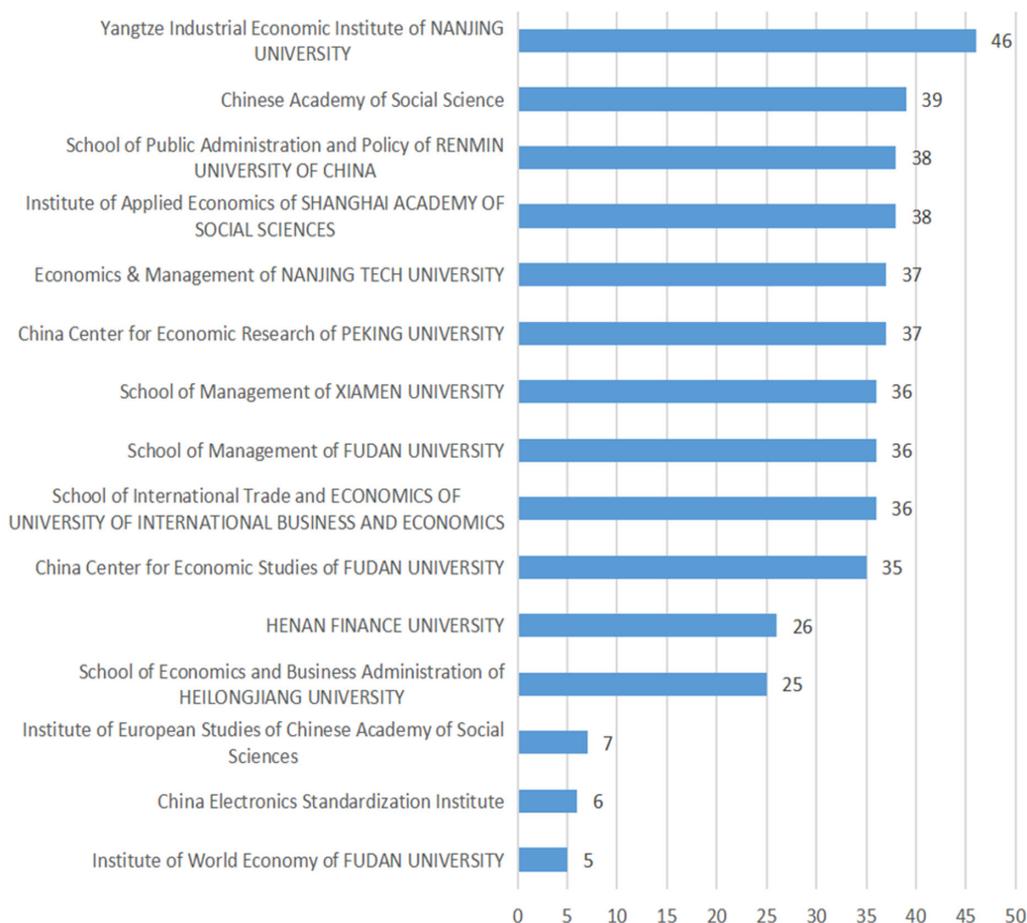
Figure 5
Distribution of institutional issuance volume
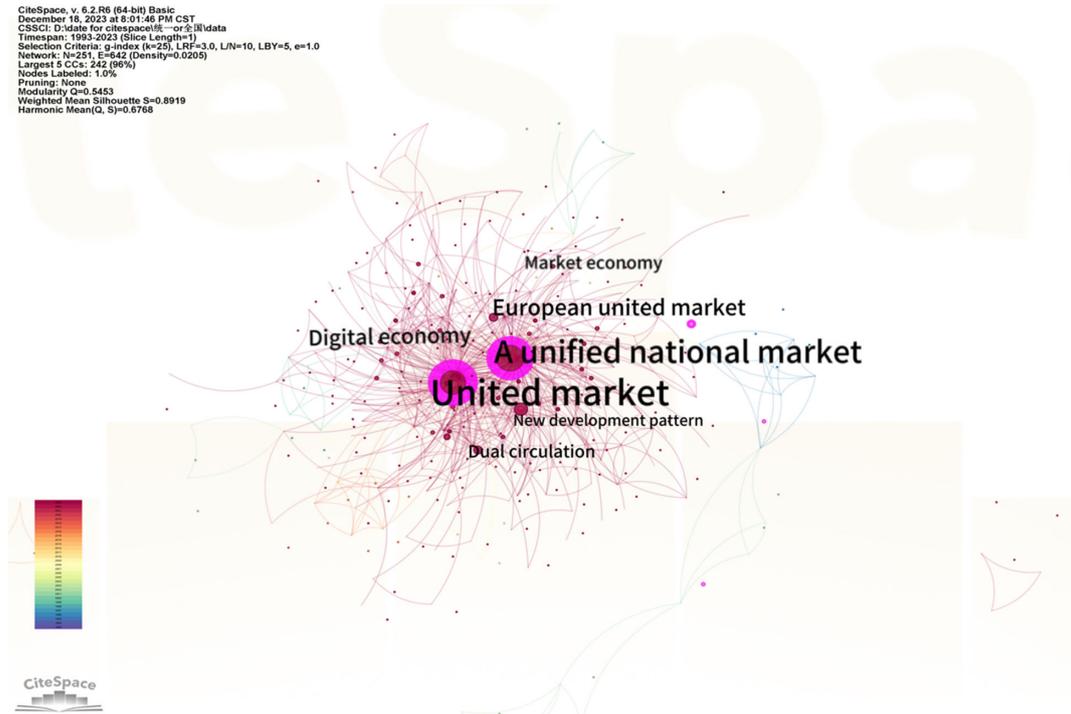
"European Community," "Dual circulation," "a unified national market," etc.

In order to further study the keywords in the fields related to a unified national market and to improve the visualization effect of the analysis network, a statistical analysis was carried out on the top ten keywords and their centrality; the results are shown in Table 1. The high frequencies of occurrence are "Unified market" (406 times), "European unified market" (127 times) and "A unified national market" (64 times), "European Community" (37 times), "Market economy" (29 times), etc. The higher centrality is "Unified market" (1.42), "European unified market" (0.14). The centrality of these two keywords is much higher than that of other high-frequency keywords, indicating that they are hot spots that have been continuously paid attention and steadily developed by the academic community, occupying a central position in the unified

national market field, and having a significant mediating effect on the research of other keywords [26].

Due to the number of articles in this field has increased dramatically since 2020, in order to further grasp the recent research hotspots, the top 10 keywords in terms of frequency from 2020 to 2023 were extracted using the same parameter settings. The results are shown in Table 2. By comparison, it can be found that the content of high-frequency keywords in the past two years is quite different from those in the whole period. The two keywords of the "A unified national market" and "Unified market" are ranked in the top two, "Dual circulation" replaced "European unified market" in second place. The high-frequency keywords have changed from "European Community" and "market economy" to "New development pattern," "Market segmentation," and "Digital economy." It can be found that the early research hotspots mainly revolve around the European unified market, while in recent years, the research focus has

Table 1
High-frequency keywords and their centrality in 1992–2022

Number	Keywords	Frequency	Centrality
1	Unified market	406	1.42
2	European unified market	127	0.14
3	A unified national market	64	0.02
4	European community	37	0.02
5	Market economy	29	0.01
6	Internal and external coordination and opening	27	0.00
7	Commercial bank	20	0.00
8	North American Free Trade Area	20	0.02
9	Socialism	17	0.01
10	Economic zone	16	0.00

Table 2
High-frequency keywords and their centrality in 2020–2022

Number	Keywords	Frequency	Centrality
1	A unified national market	189	0.7
2	Unified market	158	0.91
3	New development pattern	46	0.05
4	Market segmentation	39	0.07
5	Digital economy	28	0.09
6	High-quality development	19	0.02
7	Dual circulation	18	0.02
8	Competitive policy	15	0.02
9	Data element	10	0.02
10	Fair competition review	9	0.01

Figure 6
Keyword co-occurrence analysis network clustering
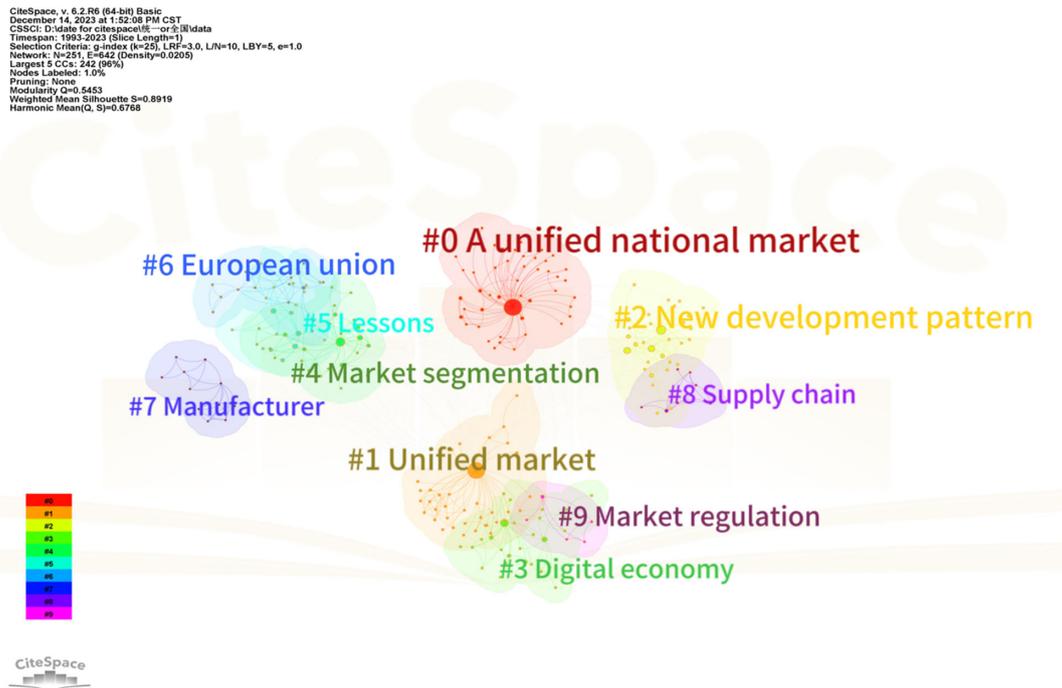
gradually shifted to the unified national market, which has undergone a major shift.

4.2.2. Keyword cluster analysis

Clustering of nodes means dividing an abstract collection of data into classes based on their intrinsic properties, with nodes in each class having the same characteristics and nodes in different classes differing significantly from each other [27]. The three different algorithms provided by LSI, LLR, and MI to CiteSpace are used to extract cluster labels at different positions of the literature. The research term extracted through the LLR and MI algorithm emphasizes the research characteristics. In the actual research process, users can use the LLR algorithm extracted labels in the visual network to display the renamed clustering. Therefore, the LLR cluster is performed on the basis of the current basis to further analyze the inherent relationship between keywords. The results of the clustering class are shown in Figure 6. According to the clarity of the network structure and clustering class, CiteSpace provides two indicators: the module value (Q) and silhouette (S). It can be used as the basis for our judgment map to draw effect. In general, a modularity value $Q > 0.3$ means that the structure of the delineated associations is significant, and when the mean profile value $S > 0.7$, the clustering is convincingly efficient [28]. In Figure 6, modularity $Q = 05453 > 0.3$ and $S = 0.8919 > 0.5$, thus indicating that the clustering results are significantly valid and provide a better indication of the research hotspots in the field. As shown in Figure 6 and Table 3, the top ten valid clusters are #0 A unified national market, #1 Unified market, #2 New development pattern, #3 Digital economy, #4 Market segmentation, #5 Lessons, #6 European Union, #7 Manufacturer, #8 Supply chain, and #9 Market regulation. This reflects the diversified and interdisciplinary nature of the research field of the Unified National Market, which on the

one hand revolves around the "Unified Market," "European Unified Market," and "A Unified National Market" On the other hand, it covers policies and institutions, etc. Combining the research results of the keyword clustering and existing experience, the research themes in the field of a unified national market can be summarized into two areas: theoretical exploration and policy implementation.

Theoretical discussion: From the clustering results, it can be seen that early scholars' research focused mainly on European unified market and gradually shifted to a unified national market at a later stage. The reform of the European Community's regional policy had its intellectual origins in the theory of endogenous development and cumulative causality [29]. Influenced by this idea, Europe proposed the construction of a large internal unified market in 1992, resulting in an advanced set of regional competition rules and a supranational governance model [30]. As a result, German manufacturing quickly took over all of Europe, and British companies gained a huge market share in household goods and brewing, with the strongest getting stronger. The EU gradually acquired the means and tools to influence international affairs [31]. However, although the EU was "politically integrated," it was not "fiscally integrated," which was one of the reasons for the Greek debt crisis that followed. The imbalance between a decentralized fiscal policy and a unified monetary policy deprived the member states of the macroeconomic control tool that would have ironed out the crisis – monetary policy. While the country does not have such problems, it has its own problems. Many scholars have analyzed and summarized the experience of building a unified big market in Europe and put forward theoretical suggestions to promote our development in the light of our national conditions. In addition, many other scholars have analyzed the resistance to the construction of a unified national market and put forward measures for further construction, laying a good theoretical foundation for the development of a unified national market.

Table 3
Keyword clustering results

Number	Size	Silhouette	Mean (Year)	Keyword enumeration (LLR algorithm result)
#0	49	0.924	2022	A unified national market, Unified market, Market segmentation, Market integration, Scientific and technological innovation
#1	36	0.94	2016	Unified market, A unified national market, Pension insurance, Dual circulation, New development pattern, Home globalization
#2	31	0.78	2022	New development pattern, Dual circulation, Cultural industries, High-quality development, Market mechanisms
#3	28	0.784	2022	Digital economy, Data elements, Data security, Business environment, Expand domestic demand
#4	26	0.886	2017	Market segmentation, Market integration, Unified market, Production elements market, Local protection
#5	20	0.829	2021	Lessons, Data factor market, Large energy market, Competition policy , Market segmentation
#6	16	0.952	2000	European Union,, European standards,, Directives, Standardization policies,, EEC
#7	11	1	2002	Manufacturer, Ce mark, New method instruction,, Authorized agent,, Designated agency
#8	7	0.969	2022	Supply chain, Beijing-Tianjin-Hebei,, Innovation chain,, Industrial chain,, Theoretical model
#9	5	0.982	2020	Market supervision,, Commercial system reform, Supervision platform,, Large market supervision system,, Guarantee system

Policy implementation: Policy research plays an important role in guiding and encouraging the implementation of policies. From the clustering results of the themes such as "New development pattern," "Digital economy," and "Market segmentation," "Market regulation," it can be seen that scholars have carried out extensive research on relevant policies in the field of a unified national market. For example, based on the high-standard market system, Liu [32] proposed that the construction of a unified national market should improve the market access and exit mechanism and strengthen the rigid constraints of the fair competition review system. Based on the new development pattern proposed by the Fifth Plenary Session of the 19th CPC Central Committee, Liu [33] explored the path and policy options for the construction of the domestic unified market from seven aspects. Song [34] calculated the quantitative relationship between the digital economy and the domestic unified market and found that the development of the digital economy can significantly promote the formation of the domestic unified market. Xing [35] summarized the construction and prospects of China's internal unified market from the issues of local protection and market segmentation raised by previous Party congresses, the government's five-year plan and work reports. Niu and He [36] combined with China's industrial and commercial administration system, analyzed the conditions for the industrial and commercial administration to supervise a unified national market, and put forward the Countermeasures for supervising the socialist unified market. Scholars are actively engaged in policy research, which is not only conducive to improving the accuracy and effectiveness of the policy but also help the development of research fields such as theoretical discussion and practical application of a unified national market.

4.3. Evolution trend

4.3.1. Evolution of research paths

It is one of the core issues of bibliometrics research to mine the research frontiers in the field of knowledge and predict its research trends. Over time, research fronts may transform into hot topics or disappear, making it possible to discover valuable new directions and potential areas [37].

In order to more clearly show the evolution of a unified national market research, on the basis of clustering, select "Timeline View" to get the keyword timeline diagram, as shown in Figure 7. It can be seen that the cluster #0 Unified market lasted from 1992 to 2023, and it is the most popular and the most intersecting line in the study. Cluster #1 A unified national market has risen from 2021 and has continued to this day, including hot issues such as market division and market integration. Cluster#2, Cluster#3, Cluster#5, #Cluster8 have a high degree of attention in recent years. The main hot issues are the new development pattern and the digital economy, which is closely related to my country's strategic ideas proposed in the new development stage, environment, and conditions. Cluster#4 market segmentation has continued in 2001. The main hot issues are factor markets and local protection. Cluster#9 Market supervision's attention has continued to 2022 since its rise in 2019. The main hot issues are the reform of the commercial system and the regulatory platform. While Cluster #6 and Cluster #7 received early attention, but with the development in recent years, the degree of attention has gradually decreased.

4.3.2. Keyword emergence

Sudden words are words that appear more frequently or are used more frequently in a short time. With the help of keyword emergence detection, we can review the research hotspots in different periods of time and predict the research hotspots and trends in the future to a certain extent [28]. This paper uses the algorithm of exploring inflated words in CiteSpace to explore the time distribution of subject word frequency by extracting topics, abstracts, and keywords in the data set, so as to detect sudden words. The results are shown in Figure 8. The red range indicates the time period in which the frequency changes the most, that is, the influence is the largest within this time period [38]. "European unified market," "European Community,"
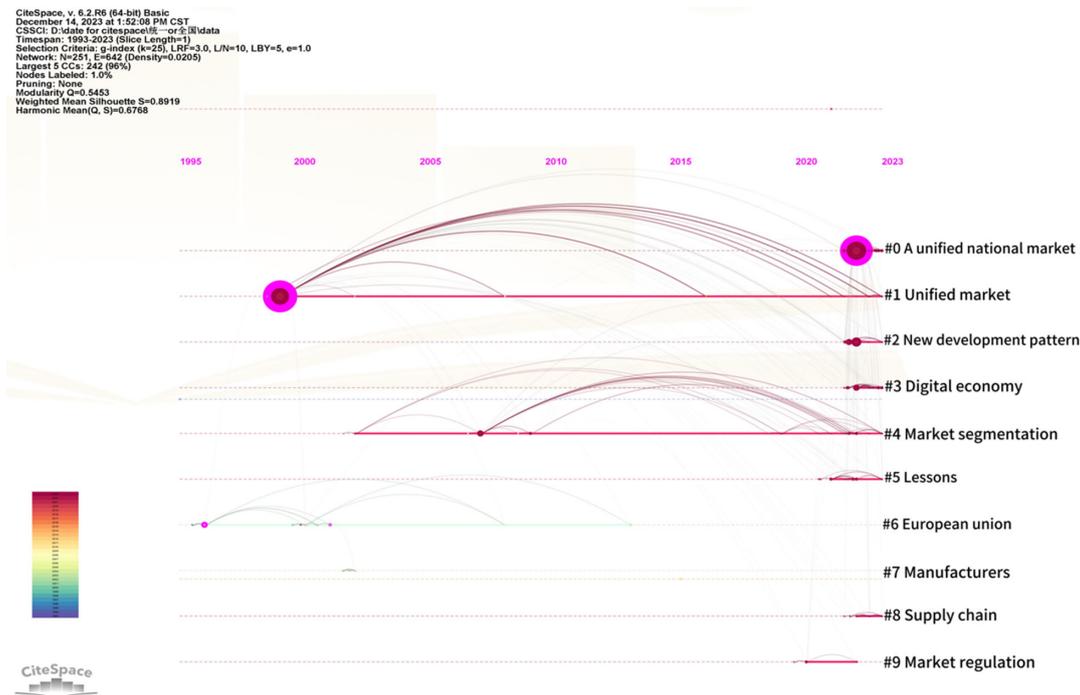
Figure 7
Keyword co-occurrence timeline

Figure 8
Thesaurus of highlighted words with high citation frequency

"Economic area," "Euro launch," "Commercial banks," "A unified national market," "New development pattern" are the research hotspots in the field of a unified national market, which are confirmed by the analysis results of research hotspots.

From the perspective of emergence intensity, the emergence intensity of the European unified market (18.33), the European Community (12.32), the double cycle (8.47), and the unified national market (8.41) is relatively large. From the perspective of time cycle, commercial banks, new development pattern, a unified national market, smooth circulation, governance boundary, and other sudden time cycles are longer, all of which are more than ten years, indicating that research in this area has been paid more attention. From the beginning of the emergence, the breadth and depth of research in this field continue to expand, and the whole

can be divided into two stages. First, in the stage of learning from the experience of foreign unified market (1986–2000), the prominent words of the European unified market, the European Community, the economic area, and the launch of the euro show that the development of this period focuses on learning and summarizing the experience of building a unified market in Europe, hoping to absorb the excellent achievements and experiences at home and abroad to serve China's economic construction, which belongs to the process of building a foundation. The second is the construction stage of a unified national market (2001–2022). At this stage, the words such as a unified national market, new development pattern, smooth circulation, governance boundary, double circulation, and so on are more active, showing the hot frontier focused in this field in

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recent years. This is a study on the construction of a unified national market in China based on the study of the European unified market, aiming to promote the development of China's economy.

5. Conclusion and Recommendations

Combining the previous bibliometric results and analysis, we have concluded the following conclusions:

First, research status: Publication volume on the unified national market peaked around 1993 and declined afterward, experiencing a low period of over 15 years, and is expected to witness a new peak. Inter-author collaboration is relatively rare, with most studies conducted independently, signifying a need to strengthen scientific cooperation. The top six institutions with most publications are all universities or research institutes, with the vast majority conducting non-continuous research.

Second, research hotspots and trends: Research themes have continuously evolved over time, completing the transition from "summarizing experiences from foreign unified markets" to "constructing China's national unified market." Currently, studies mainly focus on exploring theoretical connotations and scopes (i.e., theoretical discussions) as well as the application of concrete measures (i.e., policy implementation). It is predicted that "A unified national market," "unified market," and "New development pattern" will become major trends for future scholarly research.

While China has started advancing national unified market development, certain obstacles still exist in the current construction process. Based on the above research and consideration, we put forward the following optimization suggestions for China's development path toward a national unified market:

First, strengthen research between interdisciplinary disciplines. The research of a national unified market shows the characteristics of overall decentralized internal gathering. The internal cooperation of each team is closely related, but the lack of cross-team cooperation, cross-team, and cross-disciplinary cooperation need to be strengthened. The national unified market is a large background. All walks of life need to rely on this background, such as economics, management, transportation, education, medical care, and other fields. Strengthening cross-research among various fields is more practical.

Second, strengthen the combination with the hotspot and policy research in the times. My country is at an important node of the conversion of old and new kinetic energy. Whether the digital economy can break the factor market barriers, reshape the factor market structure, and build a unified and competitive national unified market in the goal is an important task. At present, my country has made great progress in digital infrastructure and digital technology development and is entering the maturity period of the development of the digital economy [39]. On the one hand, it can increase its support for innovation and entrepreneurship, build a national unified employment information platform, and relieve the labor market segmentation status caused by information asymmetry. On the other hand, the government should strengthen the supervision and governance of the digital economy and reduce the use of unreasonable competition such as the use of market dominance to implement monopoly.

Third, establish demonstration zones for the unified market to promote coordinated regional development. Drawing experience from Europe in establishing a unified market, promoting regional integration is crucially important for China to build a national unified market. Although the EU has formed the European unified market through multiple reforms, it still suffers from serious policy fragmentation problems, hindering further economic development. Therefore, in the process of building a national unified market, China can first establish some demonstration zones while helping less developed areas leverage local advantages to develop characteristic brands. It can adopt measures of "early action" in some regions to conduct an in-depth exploration of regional integration and achieve unified basic market institutions and rules, factor market, market platform facilities, and so on. The goal is to learn from and summarize experiences and practices and strive to achieve "point-area development," forming good demonstration effects to promote the establishment of the national unified market.

Fourth, establish sound supervision and management mechanisms to give full play to the guiding role of local governments. Resolving the problem of market segmentation is urgently needed to establish a national unified market, and the main factor causing this problem is that local governments protect local enterprises by restricting the development of other enterprises. Therefore, institutional obstacles should be removed and sound supervision and management mechanisms for the national unified market at all levels should be established as soon as possible. Evaluation and incentive systems should be improved to ensure that local governments can actively implement various policies in the process of building a national unified market and avoid fragmentation of local governance. Local governments should make long-term plans in light of local conditions while strengthening medical and education development to enhance local people's sense of happiness.

Conflicts of Interest

The authors declare that they have no conflicts of interest to this work.

Data Availability Statement

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

Author Contribution Statement

Xin Feng: Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Resources, Writing – original draft, Project administration, Funding acquisition. **Yinuo Xu:** Methodology, Software, Validation, Formal analysis, Investigation, Data curation, Writing – original draft, Writing – review & editing, Visualization. **Xu Wang:** Conceptualization, Validation, Resources, Writing – review & editing, Supervision, Funding acquisition.

References

[1] Luo, B. L., Lu, M., Zheng, Y. L., Wang, Y. Q., Luo, C. L., Mao, S. L., . . . , & Mo, Z. H. (2022). Accelerating the construction of a unified national market – Excerpt from the keynote speech of the Theoretical Seminar on building a unified market. *Southern Economy*, *6*, 1–21.

[2] Shaw, D. S., Shaw, A. C., Shaw, S. S., & Leigh, R. (1999). The single European market and SMEs: A comparison of its effects in the food and clothing sectors in the UK and Portugal. *Regional Studies*, *33*(1), 51–62. https://doi.org/10.1080/00343409950118913

[3] Pelkmans, J. (2016). Why the single market remains the EU's core business. *West European Politics*, *39*(5), 1095–1113. https://doi.org/10.1080/01402382.2016.1186388

[4] Shao, J. C. (1999). *The law and system of the European Union*. China: People's Court Press.

[5] Li, J., & Zhang, T. (2014). Analysis of monetary and fiscal policies of the European Monetary Union – From the perspective of the European debt crisis. *Times Finance*, *9*, 19–21.

[6] Raudla, R., & Spendzharova, A. (2022). Challenges to the European single market at thirty: Renationalisation, resilience, or renewed integration? *Journal of European Integration*, *44*(1), 1–17. https://doi.org/10.1080/07036337.2021.2011263

[7] Liu, Z. B. (2021). The significance and realization path of building a unified domestic market. *People's Forum*, *2*, 20–23.

[8] Decision of the CPC Central Committee. (2014). Decision of the CPC Central Committee on several major issues of comprehensively deepening reform. *Beijing Review*, *57*(7), 1–24.

[9] Xiao, J. C., Liu, S. Y., Chen, H., He, Z. L., Ge, Y., Zhou, S. D., . . . , & Yang, J. Y. (2022). The significance, basic ideas and cognitive development of building a national unified market (written discussion). *Journal of Tianjin Normal University (Social Science Edition)*, *4*, 1–22.

[10] Han, L. M., Gao, H. Y., & Qian, L. L. (2022). Building a unified national market and integrating services into the new development pattern – A summary of the 73rd inner Mongolia development and reform forum. *Northern Economy*, *5*, 38–40.

[11] Su, J., & Shao, Y. J. (2022). Quán guó tǒng yī dà shì chǎng jiàn shè de nèi hán, xiàn zhuàng yǔ zhèng cè jiàn yì [Connotation, current situation and policy suggestions of the construction of a unified national market]. *Journal of Xinjiang Normal University (Philosophy and Social Sciences Edition), 43*(6), 98–109. https://doi.org/10.14100/j.cnki.65-1039/g4.20220601.001

[12] Gao, F. (2022). Logical exploration of accelerating the construction of the national unified market. *National Governance*, *9*, 33–37.

[13] Chen, P., Lin, Y., & Liu, K. (2021). A unified national market construction, resource allocation efficiency and China's economic growth. *Economic Research*, *56*(6), 40–57.

[14] Su, J. (2022). To build 'a unified national market', we must first break local protection. *China Economic Weekly*, *8*, 102–103.

[15] Zhang, L., & Huang, S. Y. (2022). Building a new development pattern based on a unified national market, logical direction, blocking point and path. *Journal of Shenzhen University (Humanities and Social Sciences Edition)*, *39*(3), 74–84.

[16] Liu, Z. B., & Kong, L. C. (2021). From segmentation to integration, obstacles and countermeasures to promote the construction of domestic unified market. *China Industrial Economy*, *8,* 20–36.

[17] Song, Z. (2022). Integration of basic theory and applied policies for building a unified national market. *China's Circulation Economy*, *36*(6), 18–24.

[18] Ding, J. F. (2022). Theory and implementation of building a unified national market. *China's Circulation Economy*, *36*(6), 3–9.

[19] Guo, Y., Wang, X. W., He, W., & Yang, M. Q. (2015). Research on the development of low-carbon technology at home and abroad based on document metrology and knowledge map visualization methods. *Information Science*, *33*(4), 139–148.

[20] Xu, Z. Y., & Dong, Z. Q. (2019). Quantitative analysis of world lung cancer research literature in recent 40 years. *Science and Technology Herald*, *37*(22), 113–125.

[21] Chu, Y. Q., & Kong, L. L. (2024). The current status and trends of supply chain research from the perspective of consumer preferences: A knowledge graph analysis based on CiteSpace. *Logistics Engineering and Management*, *46*(01), 64–70.

[22] Damro, C. (2015). Market power Europe: Exploring a dynamic conceptual framework. *Journal of European Public Policy*, *22*(9), 1336–1354. https://doi.org/10.1080/13501763.2015.1046903

[23] Lin, W. H. (2012). *The origin, impact and solutions of the Greek sovereign debt crisis*. Master's Thesis, Northeast University of Finance and Economics.

[24] Cheng, F. F., Huang, Y. W., Yu, H. C., & Wu, C. S. (2018). Mapping knowledge structure by keyword co-occurrence and social network analysis: Evidence from Library Hi Tech between 2006 and 2017. *Library Hi Tech*, *36*(4), 636–650. https://doi.org/10.1108/LHT-01-2018-0004

[25] You, L. J. (2021). Trends and frontiers of advertising research in China in the past 12 years – Knowledge map analysis based on CiteSpace. *Southeast Communication*, *4*, 138–141.

[26] Chai, Y., & Wang, Y. (2021). Hot topics and future directions of Communist Youth League research – Visual analysis based on CiteSpace. *Journal of Hebei Youth Management Cadre College*, *33*(5), 5–12.

[27] Yu, Y., & Jin, Y. (2019). Bibliometric research in information science, hot topics and knowledge base. *Information Science*, *37*(9), 126–132.

[28] Gong, M. G., Li, H. J., & Dou, X. Y. (2022). Research progress, hot spot analysis and trend outlook of digital inclusive finance – Based on the quantitative analysis of CiteSpace literature. *Lanzhou Academic Journal, 7*, 45–57.

[29] Behrens, P., & Smyrl, M. (1999). A conflict of rationalities: EU regional policy and the single market. *Journal of European Public Policy*, *6*(3), 419–435. https://doi.org/10.1080/135017699343603

[30] Sciglimpaglia, D., & Saghafi, M. (2005). Marketing consequences of European internal market unification: An executive perspective. *Journal of Euromarketing*, *14*(1–2), 35–57. https://doi.org/10.1300/J037v14n01_03

[31] Damro, C. (2012). Market power Europe. *Journal of European Public Policy*, *19*(5), 682–699. https://doi.org/10.1080/13501763.2011.646779

[32] Liu, X. F. (2021). Building a high standard market system to form a unified domestic market. *China Economic and Trade Guide*, *5*, 47–50.

[33] Liu, Z. B. (2021). Building a unified domestic market, influencing factors and policy choices. *Academic Monthly*, *53*(9), 49–56.

[34] Song, Y. Q. (2023). The formation mechanism and realization path of the digital economy empowering the domestic unified market. *Business Economics Studies*, *21*, 141–145.

[35] Xing, W. B. (2019). The construction and prospects of China's internal unified market. *Financial Think Tank*, *4*(5).

[36] Niu, J. P., & He, H. (2000). Talking about the conditions for the industrial and commercial administration to supervise the unified market in the new era. *Economist*, *3*, 112–113.

[37] Zhao, Y. (2019). Research on the frontier and development trend of children's reading promotion in China based on word frequency mutation. *Publication and Distribution Research*, *1*, 99–103.

[38] Chen, T. Q., Gao, Y., Feng, Z., Yang, Y., Wu, K. N., & Zhao, H. F. (2021). Research hotspots and trends of soil ecosystem services based on CiteSpace. *Journal of China Agricultural University*, *26*(7), 204–219.

[39] Jiang, S. L., & Yu, C. C. (2023). How does the digital economy affect the formation of a unified labor market. *Research the World*, *11,* 27–35.