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# Implementations of China's New-Type Urbanisation: A Comparative Analysis between Targets and Practices of Key Elements' Policies

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**Abstract:** China's new-type urbanisation, as a national strategy, is one of the reasons why the leap in development has been made in the last decade. Existing studies mainly focus on the status and outcomes of china's new-type urbanisation while stressing not enough the overlooked aspects of newtype urbanisation policies that are currently in use. This paper aims at exploring the highlighted and overlooked aspects of policies of three key elements in China's new-type urbanisation: population, land, and industry and their implementations. The complicated process and contradictions between formulation and implementation of the policies are extracted by analysing set goals and implemented situations of relative indicators from the three elements. The policies drove the population from separation to unity between household registered and actual residences, land from human land allometry to balance, and industry from traditional industrialisation to emerging service. Although these policies had significant achievements in the transitions of formulation, they still needed to be further implemented. Furthermore, this paper discusses corresponding reasons and potential directions to better the adoption of these policies for greater inclusion and systematic efficiency. The findings could not only highlight directions that improve existing policies of China's new-type urbanisation but also provide guidance for inclusive and sustainable urbanisation practices in China as well as other cities in similar situations all over the world.

Keywords: policy implementations; new-type urbanisation; population; land; industry; China



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### 1. Introduction

1.1. Global Urban Development Issues and Urbanisation

Nowadays, the world faces many fundamental sustainability challenges in several domains. Energy supply, for example, is confronted with a rapid depletion of natural resources, air pollution and greenhouse gas emissions, nuclear risks, uncertainties related to its security of supply, and energy poverty [1]. Water supply and sanitation systems have to tackle a broad range of problems related to water scarcity, insufficient access in low-income countries, and extreme events such as flooding, earthquakes, and micro-pollutants [2]. The transportation sector is challenged by congestion, local air pollution, fossil fuel depletion and  $\rm CO_2$  emissions, and the risk of accidents, and other sectors such as agriculture, food system, and education, must cope with similar challenges [3]. While most of these challenges are related to environmental and social issues, economic problems are pressing as well. Existing infrastructure systems in many parts of the world are confronted with huge financial needs in terms of infrastructure renewal and expansion, which seem even more daunting in times of financial crisis and public budget overruns [4,5]. In addition, the

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COVID-19 pandemic is reshaping the world order of economy and politics [6]. This event has slowed down economic growth, increased unemployment, and raised poverty and hunger [7]. The decline in the world gross product could lead to an additional 25 million unemployed people worldwide [7]. Hunger will also increase, with the number of people facing acute food insecurity doubling to about 265 million by the end of 2020 [8]. A growing number of scholars and policymakers believe that it is urgent to deal with global climate change and other socio-environmental problems. These problems are threatening global sustainable development.

Cities are the key to global sustainability endeavours, as they are the largest consumer of resources and contribute the largest proportion of the world's total greenhouse gases emissions [9,10]. As a consequence of the urbanisation trend, energy demands, building construction, waste and water services, and industrial processes are centred in and around the cities [11]. To deal with these problems, countries worldwide have reached a basic consensus on the establishment and application of a low-carbon economy, and some developed countries have already achieved this [12]. The social, spatial, and economic structure change occurred in the process, accompanied by urbanisation. The level of urbanisation is reflected by the urban population rate [13,14]. China's urbanisation rate was 63.89% in 2020, showing that Chinese cities are still in a phase of rapid development [15]. The first half of the accelerated urbanisation phase (30–50%) took 60 years in Britain, Germany, and France, while China took only 15 years. The second half of the accelerated urbanisation phase (50–70%) took 60 years in the UK and Germany, 40 years in France and the United States, and 15 years in Japan (Table 1). Based on the forecast of a faster urbanisation rate of 1.2% per year, China's urbanization rate will take about 15 years to increase from 50% to 70%, which is much faster than Europe and the United States and comparable to Japan. However, there is, at present, a huge gap between the level of urbanisation in China and that in developed economies such as Japan, the United States, and the United Kingdom.

**Table 1.** Comparison of urbanisation process between China and developed economies; source: authors' edition based on China National Statistical Bureau [16], World Bank [17].

Country	The Time It Took for the Urbanisation Rate to Increase from 30% to 50% (Year)	The Time It Took for the Urbanisation Rate to Increase from 50% to 70% (Year)	Urbanisation Rate in 2020
Japan	30	15	91.78%
United States	40	40	82.46%
United Kingdom	65	60	83.90%
Germany	65	60	77.45%
France	60	40	80.98%
China	15		63.89%

### 1.2. China's Urbanisation Process

As the world fully enters the era of planetary urbanisation, China becomes increasingly important not just within China but globally [18,19]. Urban development in China is unlike that in the west and many other developing countries. Compared with many cities in Western countries, which often share a broadly similar economic and political history among them (free market or mixed economy, social-democratic systems, etc.), cities in China are very different both economically and, above all, politically [19]. Nevertheless, while the previous literature borrows many concepts from the Western urban studies literature, comparisons with cities elsewhere are short-circuited by the argument that Chinese cities are unique [20]. China is where one very important vision is unfolding when looking at the changing nature of global urban development [19]. China's urbanisation plays an important and unique role in global development. The crucial position of the role of China's urbanisation in global urbanisation has been raised [21]. This has a profound impact on China's economy as well as the world economy [22]. Furthermore, China's urbanisation is too unique to easily subsume

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into standard discussions about urban development and urban change. On the one hand, cities in China have received millions of rural migrants [21]. On the other hand, China's urban area has increased rapidly, with large areas of farmlands converted into urban use, named in-situ urbanisation [23]. As such, China's urbanisation issues should be separately explored based on its special institutional context and embeddedness.

Since the founding of New China in 1949, the central government has issued regulation policies to guide urbanisation in different periods (Table 2). An important policy, Reform and Opening up, published in December 1978, drove urbanisation into a rapid stage. More than 600 million people moved from rural areas to cities, and the proportion of PUP increased from 17.92% in 1978 to 63.89% in 2020 [16].

Year	Important Event	Relative Policy	Annual Change of Urbanisation Rate
1949	Planned economic system	Draft Budget Estimates for National Revenue in 1950	
1950	Land reform movement	Land Reform Law of the People's Republic of China	+0.54%
1958	Dual-household registration system	Regulations of the People's Republic of China Concerning Residence Registration	+0.56%
1978	Reform and opening up	Communiqué of the Third Plenary Session of the 11th Central Committee of the Communist Party of China	+0.08%
1985	Reform of the market economic system	Decision on Reform of the Economy Structure	+0.82%
1997	Reform of household registration system	A Pilot Plan for Reforming the Household Registration System in Small Towns	+1.03%
2002	Balancing rural and urban development	The Report to the 16th CPC National Congress	+1.24%
2008	An integrated structure for the economic and social development of urban and rural areas	Decision on Several Big Issues in Promoting the Reform and Development of Rural Areas	+1.48%

The Report to the 18th CPC National Congress

**Table 2.** Important event nodes and their relative policies in China's urbanisation.

Influenced by the fluctuation of these policies in different periods, China's urbanisation rate has shown a fluctuating change since 1949. As seen in Figure 1, the rate experienced a period of steady improvement in the 1950s, rising from 10.64% in 1949 to 19.75% in 1960, followed by a rapid decline and 20-year stagnation of development. By the beginning of Reform and Opening up in 1978, this dropped to 17.92%. Subsequently, under incentives of sustained policies, this kept rising, capped by 28.62% in 1994, and the growth rate in the later period was significantly faster than that in the earlier period. From 1978 to 1994, the rate grew at an average annual rate of 0.67%, while from 1994 to 2012, it grew at an average annual rate of 1.33%, which was twice as fast as the previous period. However, problems in the process of rapid urbanisation were gradually prominent. For example, many cities in China were faced with severe environmental degradation, traffic congestion, rapidly rising housing prices, and urban vulnerability barriers. The urban sprawl caused by the land-revenue system challenged to fix the economic benefits brought by population and industrial agglomeration, resulting in huge environmental costs and fragmented construction land [24]. The main effect was that the population density of most cities in China decreased, contrary to the trend of other East Asian countries [25]. If this path of urbanisation were to continue, the lock-in effects of land-use decisions and urban infrastructure choices would lead to further environmental, economic, and social degradation [26]. China's urbanisation thus needed to solve those problems through policy regulation.

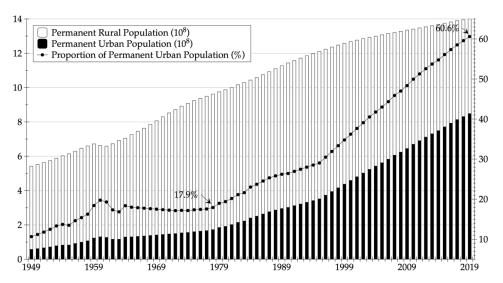
### 1.3. China's New-Type Urbanisation

New-type urbanisation

The 18th Communist Party of China (CPC) National Congress in 2012 put forward the concept of new-type urbanisation. The human-based urbanisation was emphasised in

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the subsequent National New-type Urbanisation Plan (2014–2020) (NUP) [27]. Both the 19th CPC National Congress and the Central Economic Work Conference pointed out that the construction of socialism with Chinese characteristics and economic development had been entering a new stage and that the national economy was transitioning from high-speed to high-quality development. The NUP initialised a new approach to urbanisation in China [28]. This was an important driving force for economic development and social reform, optimising the structure of the urban scale and improving industry development [29]. Furthermore, the 14th Five-year Plan emphasised "improving the quality and effectiveness of urbanisation" and "deepening the human-based new-type urbanisation strategy" from 2021 to 2025.



**Figure 1.** Urbanisation level and permanent urban and rural population in China from 1949 to 2019; Source: Authors' edition based on China National Statistical Bureau [28]; China Statistical Bureau [29].

One the one hand, existing studies focus on the status and outcomes of China's newtype urbanisation. For example, Zhou and Li claimed that it is an important driving force for China's economic development and social reform [30]. It favoured optimisation of the structure of the urban scale, sped up the transition and upgrade of industries in core cities, and enhanced the functions of cities [29]. It initialised new approaches to urbanisation in China [28,31–33]. In other words, it is not only a new national urbanisation principle and policy but is also a new stage of China's development [32]. On the other hand, policy guidance has an important influence on China's urbanisation [34]. The policy, as a kind of behaviour rule closely related to socio-economic actions [35], is an important driving force and guarantee [36]. Its influence on urbanisation is greater than economic factors because political leaders and government macro-management play a decisive role in this process [37]. The existing literature, however, does not stress enough the overlooked aspects of the new-type urbanisation policies that are currently in use.

### 1.4. Key Elements in Urbanisation

The relationship between population, land, and industry is a significant foundation for assessing urbanisation. The core of urbanisation is the non-agricultural transition of population, land, and industry [38–40]. As a macro-level system, urbanisation includes the meso-level subsystems of population, land, and industry, which are the basic supports, carriers, and sources of such development, respectively [41] (see Figure 2). The rate of the population to the total population represents different stages of urbanisation [42]. As property, living space, economic space, and place, the land is the core of urbanisation [43]. Industrial development, which is the foundation, constitutes the basic environmental and social conditions for modern economic development and the core content of improving residents' livelihood and life quality [40].

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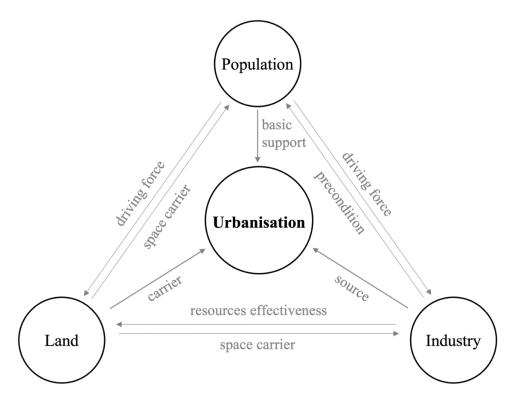


Figure 2. A conceptual framework of the three key elements of urbanisation.

These subsystems are not separated. Mutual correlations, impacts, and restrictive relationships among population, land, and industrial urbanisation have been stated in the existing studies [41,44]. The flow of urban-rural population is a significant driving force for urban land expansion and industrial development [45]. Land urbanisation provides a space carrier for urban population growth and industrialisation [41]. Industrial urbanisation is the precondition of urban population and built-up area agglomeration [40]. In other words, because of changes in industrial structure and economic development, the demand for labour drives the migration of the rural population and multiplies the demand for construction land [46]. Furthermore, urbanisation should be examined not only its continuity from the historical point of view but also its unique particularity from the era point of view [47]. China's urbanisation has been confirmed as an agglomeration process of population, built-up land, and industry in urban areas [45,48,49]. Additionally, the focus of new-type urbanisation is to integrate the spatial distribution of registered population, construction land, and secondary and tertiary industries Hence, if we want to understand the implementations of China's new-type urbanisation, three key elements and their interactions provide an antecedent perspective.

## 1.5. Objectives and the Structure

This paper aims to explain the focuses of policies and comparing the gap between their targets and practices to reflect the process of China's new-type urbanisation. After identifying the knowledge gap in existing literature, this paper underscored the relevance of highlighting the value and issues of new-type urbanisation during the policy-making and implementation process. Based on an overview of the three key elements of urbanisation, including population, land, and industry, this paper qualitatively analysed the highlighted aspects of these policies that were currently in use and the overlooked ones in their practices. This subsequently discussed corresponding reasons and potential directions to better the adoption of policies for greater inclusion and systematic efficiency. The paper's findings could not only highlight directions that improve existing policies of China's new-type urbanisation but also provide guidance for inclusive and sustainable urbanisation practices in China as well as other cities in similar situations all over the world.

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This paper is divided into the following three sections: With a filtering process of policies published by the central government from 2012 to 2020, 15 relative policies are firstly highlighted to utilise in the following analysis. Secondly, we analyse the connotation, characteristics, and performance of these three elements driven by these policies. The following part extracts the complicated process and contradiction between the formulation and implementation of these policies and suggested strategies for optimisation of new-type urbanisation.

### 2. Materials and Methods

In this study, we explore the implementations of China's new-type urbanisation. We perform this in a uni-directional manner, being primarily interested in what the gap between targets and practices of key elements' policies is. In order to address it, we undertook a qualitative systematic literature survey, documentary analysis, and comparative analysis as the main investigation methods to analyse the country-level policy implementations of the three elements, namely population, land, and industry, in China's new-type urbanisation. The collection and analysis for relative policies are given in the following steps and principles.

#### 2.1. Data Collection

The systematic literature survey was used to select relevant policies for new-type urbanisation in this paper. This is a widely used but an effective method to narrow down research problems and formulate a specific research question [50] and enables researchers to quickly capture the origins, development, and frontiers of the research field as well as the related topics to identify the knowledge gaps through keywords searching and indexing via some reliable literature databases [51]. By this method, the relative policies were selected into a dataset for following analysis. Based on the above research objectives, this research screened and selected policies affecting the transitions of population, land, and industry, which should be published and took effect from 2012 to 2020. They were searched and reviewed in an official dataset, which gathers all national policies published by the central government from 1996 (http://sousuo.gov.cn/a.htm?t=zhengce#search\_result, accessed on 17 February 2022). The three-step filtering principles are as follows (see Figure 3).

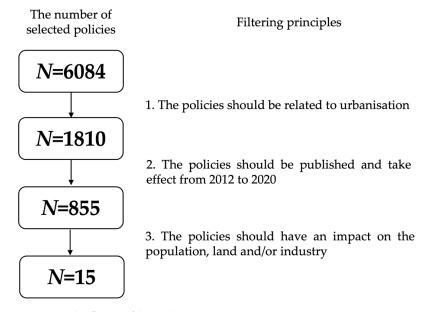


Figure 3. The flow to filter policies.

Firstly, the policies should be related to urbanisation. There were 6084 policies in this official dataset. As this dataset covers all aspects of China's development, some policies with irrelevant focuses were eliminated, such as animal protection, forest fire prevention, and

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so forth. After this step, 1810 policies met this condition. Secondly, the policies should be published and take effect from 2012 to 2020, as the concept of new-type urbanisation was put forward in the 18th Communist Party of China (CPC) National Congress in 2012, and the National New-type Urbanisation Plan (2014–2020) was finished in 2020. Importantly, the policies that were published but never took effect during the period were not included to ensure that the selected policies impacted the practices of the new-type urbanisation. After filtration, 855 policies were selected. Lastly, as we focused on the three key elements of urbanisation in this research, the selected policies had an impact on the population, land, and/or industry. As a result, the 15 policies are eligible (see Table 3). Furthermore, to evaluate the practices of the 15 key elements' policies, we used the secondary data from China National Statistical Bureaus to reflect them.

**Table 3.** The main policies for population, land, and industry in new-type urbanisation.

No.	Date	Policy	Key Element		
		Toney	Population	Land	Industry
1	November 2012	The Report to the 18th CPC National Congress [52]	√	$\sqrt{}$	$\checkmark$
2	November 2013	Decision of the CPC Central Committee on Several Major Issues Concerning Comprehensively Deepening the Reform [53]	<b>√</b>	$\sqrt{}$	$\checkmark$
3	March 2014	New-type Urbanisation Plan (2014–2020) [54]	√		$\checkmark$
4	July 2014	Opinions of the State Council on Further Promotion of Reform of the Household Registration System [55]	<b>√</b>		
5	September 2014	Guiding Opinions of the Ministry of Land and Resources on Advancing the Economical and Intensive Use of Land [56]		$\sqrt{}$	
6	May 2015	Made in China 2025 [57]			$\checkmark$
7	May 2015	Notice of the State Council on Approving and Relaying the Opinions of the National Development and Reform Commission on Key Work for Deepening the Reform of the Economic System in 2015 [58]	$\checkmark$	$\checkmark$	$\checkmark$
8	October 2015	Outline of the 13th Five-Year Plan for the National Economic and Social Development of the People's Republic of China [59]	√	$\sqrt{}$	$\checkmark$
9	February 2016	Several Opinions of the State Council on Further Promotion of Construction of New-type Urbanisation [60]	√	$\sqrt{}$	$\checkmark$
10	January 2017	National Population Development Plan (2016–2030) [61]	√		
11	March 2017	Notice of the State Council on Releasing 13th Five-Year Plan for Promoting Equal Basic Public Services [62]	√		
12	March 2018	Report on the Work of the Government in 2018 [63]	√		$\checkmark$
13	March 2018	Notice of the National Development and Reform Commission on Implementing the Key Tasks of Promoting New-type Urbanisation in 2018 [64]	√	<b>√</b>	$\checkmark$
14	April 2020	Key Tasks for New-type Urbanisation in 2019 [65]			$\checkmark$
15	April 2020	Key Tasks for New-type Urbanisation and Integrated Urban and Rural Development in 2020 [66]	<b>√</b>	$\sqrt{}$	$\checkmark$

### 2.2. Data Analysis

The research utilised documentary analysis to extract the targets of 15 key elements' policies and comparative analysis to compare the gap between targets and practices. Document analysis is a systematic procedure for reviewing or evaluating printed and electronic documents (i.e., computer-based and Internet-transmitted) materials [67]. Like other analytical methods in qualitative research, document analysis requires that data be examined and interpreted to elicit meaning, gain understanding, and develop empirical knowledge [68,69]. The analytic procedure entails finding, selecting, appraising (making sense of), and synthesising content contained in documents and then organising into major themes, categories, and case examples [70]. With the 15 selected policies being a dataset, systematic keyword indexing was conducted to illuminate the structure, focal points, and overlooked aspects of these policies. Furthermore,

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this paper clarified the transitions of the three elements by comparing the targets and practices of these policies. Comparative analysis is the process of comparing items to one another and distinguishing their similarities and differences, and its conduction allows it to better understand the issue and form strategies in response [71]. Based on comparing those targets and practices, implementations of China's new-type urbanisation could be visually understandable.

This process involved four major steps (see Figure 4): (1) reviewing and analysing the content of the 15 policies in the three elements respectively; (2) extracting the main targets of these 15 policies in terms of the population, land, and industry in new-type urbanisation; (3) comparing these targets and their actual practice situations by corresponding secondary data; and (4) further analysing the connotations, characteristics, and performances of those three dimensions. The detailed results are in the following section.

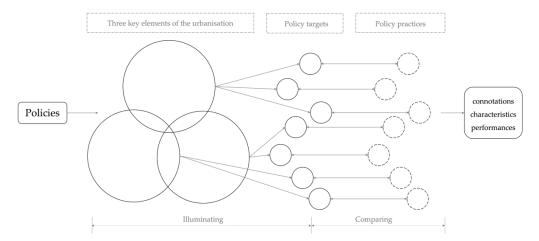


Figure 4. The analytical framework of this paper.

# 3. Policy Implementations of These Three Key Elements in China's New-Type Urbanisation

### 3.1. Implementations of Population Policies

In the high-speed urbanisation stage, considerable rural workers migrated to the cities but could not settle down due to urban-rural regime differences [42]. However, this phenomenon was not given attention for a long period as the evaluation standard of China's urbanisation goal was simply the proportion of the permanent urban population (PUP). Fortunately, this was noticed in the stage of new-type urbanisation. The central government issued considerable policies on population urbanisation was proposed. Some policies were put forward to accelerate the reform of the household registration system, such as relaxing the policies on the transfer of registered permanent residence and establishing a unified system for urban and rural areas. Additionally, given the benefits and security of new urban residents after movement, some policies put forward to improve the strategic orientation of quality of people who moved to cities from rural areas as permanent urban residents to provide the political foundation for the successful transfer of labour force and social mobility of talented personnel. These policies paid close attention to the value and dignity of the floating population, ensuring that, as the main body of urbanisation, they could enjoy equal rights to participation, development, and security in cities. Moreover, the existing settled regime of population development was rearranged; the proportion of the registered urban population and that of the permanent were 36.3% and 53.77%, a gap of nearly 19% in 2014; while those were 44.38% and 60.6% in 2019, respectively [72]. The gap between the two proportions in the two periods narrowed by 2.25% in five years. A social phenomenon was that long-term residence and even household registration movement of the floating population after staying in cities was becoming more common. It is thus clear that the protection of individual rights and interests was paid more attention to new-type urbanisation. Sustainability **2022**, 14, 6341 9 of 15

### 3.2. Implementations of Land Policies

"Population urbanisation" and "land urbanisation" did not develop synchronously in the stage of China's high-speed urbanisation. The proportion of PUP increased from 41.76% to 54.77% from 2004 to 2014, an increase of 13.01%, while the built-up area increased from 30,406.19km² to 49,772.63km², a significant increase of 63.69% [73]. Though the rapid development of the urban population inevitably took up considerable land resources, the main reason was that the local government pushed population urbanisation through land urbanisation due to the worship of GDP and the influence of land revenues [74,75]. Furthermore, the demands of population movement and the pressure of political performance led by the high-speed urbanisation resulted in the real estate bubble.

The new configuration of land urbanisation broke through, and adjustments firstly occurred at the policy level. A policy issued in 2014 pointed out that the policy of reducing the scale of the newly added construction land was implemented year by year. The increment of construction land was limited in new-type urbanisation. In detail, the total amount of newly added urban and rural construction land must be controlled within 21,707 km<sup>2</sup> from 2015 to 2020. Furthermore, the rural population moving cities inevitably needed additional municipal infrastructure construction. The newly added urban construction land gave priority to the land demand for rural population movement. Some policies stated to give priority to ensuring land for the construction of basic public services. In addition, the policies in new-type urbanisation focused on upgrading the original construction land rather than land sprawl. The proportion of PUP increased from 54.77% to 60.60% from 2014 to 2019, an increase of 5.83%, while the urban built-up area increased from 49,772.63 km<sup>2</sup> to 60,312.45 km<sup>2</sup>, an increase of 21.18% [73]. Compared with the growth ratio between PUP and built-up area from 2004 to 2014, the ratio from 2014 to 2019 decreased from 1:4.9 to 1:3.6. As such, these policies advocated the revitalisation of existing construction land in the transition from incremental planning to stock planning.

### 3.3. Implementations of Industry Policies

Industrialisation is accompanied by urbanisation [76]. As the largest manufacturing country in the world, China's biggest disadvantages here are high-cost ratio, low value-added rate, and low-profit rate. The industry transitioned from traditional to high-tech in new-type urbanisation. Made in China 2025 set out the strategic goal of becoming a manufacturing powerhouse. The primary task was to accelerate the transition and upgrading of the manufacturing sector and improve the innovation capacity. The 13th Five-Year Plan set the goal of accelerating the development of advanced manufacturing and strategic emerging industries. The added value of strategic emerging industries accounted for 8.1% of GDP in 2015, which was up more than 4% from less than 4% in 2010. In 2020, it accounted for 11.7%, which was up 3.7% from 2015 [73].

Furthermore, the industrial structure transitioned from industry-led to service-led. In the 1950s and 1960s, the central government put forward the goal of realising national industrialisation and the policy of agriculture-based and industry-led national economic construction, resulting in China becoming a "factory of the world". Plentiful and low-cost labour shifted from rural areas to more productive urban industrial sectors. During the four decades after Reform and Opening up, the working-age population grew rapidly, and labour costs were low, leading to the rapid development of traditional industries. The demographic dividend became an unprecedented source of high economic growth. Nevertheless, these benefits were shrinking with the accelerated ageing process and technology development. This situation made the traditional economy into a more profound dilemma as well as further promoted the innovation economy and industry transition.

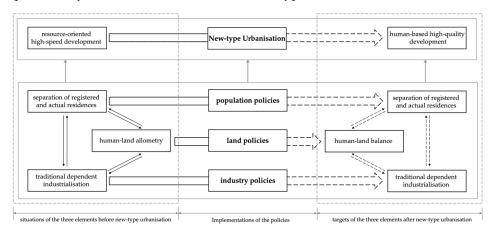
Some policies in new-type urbanisation changed the dilemma. During the period of the 12th Five-Year Plan, the target of "increasing the proportion of the added value of the service industry in GDP by 3%" and the basic requirements of "accelerating the development of the service industry and promoting economic growth to rely on the primary, secondary and tertiary industries in coordination" were put forward. The added value of

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the tertiary industry exceeded that of the secondary industry for the first time in 2012 and became the main driving force of China's economic development [73]. The 13th Five-Year Plan proposed that producer services should be specialised and extended to the higher end of the value chain, and consumer services should be refined and of high quality. The increase in the proportion of the added value of the service sector in GDP was a significant indicator reflecting the optimisation and upgrading of the industrial structure [77]. The added value of the service sector accounted for 54.5% of GDP in 2020, with a high growth rate (7–8%) [78]. Still, it was not enough to achieve a high per capita GDP level and form a modern service-oriented industrial system and structure.

# 4. Relationship and Transition of the Three Elements in Implementations of Their Policies

Their effects were interacting instead of non-affecting among aspects of urbanisation (see Figure 5). For example, the household registration policies reduced the gap between land supply and demand caused by the separation of registered and actual residences. The homestead system reform's voluntary and compensated withdrawal mechanism objectively promoted the settlement of people who move to cities from rural areas in cities [79]. Furthermore, the rural area revitalisation strategy set off a wave of the rural registered population working in cities returning home to start their businesses [80], which never slowed down the urbanisation process but alleviated the realistic dilemma of the rural population being forced to separate registered and actual residences. Compared with the alleviated urban-rural dual opposition, city-city opposition was becoming more and more intense. Moreover, under the logic of land revenues, local governments had higher expectations of the profit created by the urbanisation of household registration, regarded as the premise and means of local economic input and revenue [81]. Additionally, the reform of the household registration system conferred more power to local governments, such as setting local thresholds for settlement, resulting in a political tendency to the survival of the fittest [82]. As the main force of new-type urbanisation, ordinary workers who contributed to the urban construction find it difficult to establish their presence. For example, they cannot register as a citizen who can buy houses and land in the city. Their rights and interests were frequently ignored in the war for people and became the most prominent victims in the war for political achievements. As a result, despite clear policy objectives and guidance, due to practical reasons, the gap between PUP and the registered was not qualitatively narrowed at the end of the New-type Urbanisation Plan (2014–2020).



**Figure 5.** The relationship and transition of the three elements (population, land, and industry) based on these policies in new-type urbanisation.

#### 5. Discussion

The effectiveness of these policies is undoubted. The policies drove the population from separation to unity between household registered and actual residences, land from

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human land allometry to balance, and industry from traditional industrialisation to emerging service. Nevertheless, their targets were not fully implemented in the practices. For example, the gap between PUP and the registered was not qualitatively narrowed at the end of the NUP.

Multiple reasons caused those practical situations. For example, urban renewal and real estate development greatly affected the transition of land. In the renewal projects of urban villages, people paid more attention to improving urban land value, space appearance, and distribution of compensation to villagers [83–85]. Local villagers who held real estate achieved the leap to gentrification, such as Liede village in Guangzhou. The cost of living and the price of real estate in this region rose accordingly [85]. In a disguised way, the rural workers who originally wanted to get rid of the identity of the rural registered population were expelled from their Arrival City (Doug Saunders (2010) defines it as a settlement formed by immigrants from rural areas of their own country or other countries in a large city in his book *Arrival City*), hindering the consistent movement of the rural population to the city.

Furthermore, the evolution from the narrow sense of stock to the broad sense of stock determined the need to redevelop the existing land resources, and the demand for land-use efficiency also increased. In other words, the land with low economic value was developed into commercial or residential areas without pertinence. This undoubtedly provided more opportunities for the people who moved to cities from rural areas to settle in cities. However, the predicament of separation of registered and actual residences was further intensified. The problems left by high-speed urbanisation, such as the real estate bubble, have not been fundamentally alleviated or solved in new-type urbanisation but instead just exist in a different form.

Additionally, the realisation of the talent dividend was the key point of the industry transition. On the one hand, under the influence of some population policies such as family planning, the ageing process was accelerated. The number and percentage of the working-age population aged 15–59 declined, and the percentage of children aged under 14 also showed a downward trend [16], indicating that the ageing population would face the superposition of ageing at the top and bottom in the future. The demographic dividend brought by the low dependency ratio was gradually disappearing. On the other hand, faced with the dual challenges of low fertility rate and ageing population, the quality of the working-age population was improved. Their average years of schooling rose to 10.75 years in 2020 from 9.67 years in 2010 [16]. The demographic dividend was gradually transitioning into talent dividends, providing impetus for the transition of industrial structure from industry-led to service-led. Although their average education level increased significantly, the added value of strategic emerging industries only accounted for 11.7% of GDP by 2020, far short of the 15% pre-set in the 13th Five-Year National Plan for the Development of Strategic Emerging Industries.

### 6. Conclusions

China's urbanisation is unique and important when looking at the changing nature of global urban development. In this process, new-type urbanisation is a new stage of China's development. Nevertheless, the existing literature does stress not enough the overlooked aspects of new-type urbanisation policies that are currently in use. As such, this paper aims at verifying the highlighted and overlooked aspects of these policies that were currently in use and their implementations at this stage. As policies of population, land, and industry in the new-type urbanisation period were gradually adjusted, the "Gate" of fairness was gradually opened at the institutional aspect. Led by corresponding policies, the population transitioned from separation to unity between registered and actual residences, gradually breaking the hidden threshold for the floating population to become new urban residents. Compared with the urban population growth, the scale of the newly added construction land was obviously on higher speed due to the low efficiency of urban land use. By linking the increase and storage of construction land, the land transitioned from

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allometric growth to human land coordination. In addition, the manufacturing industry transitioned to high-tech industries, and the industrial structure transitioned from the industry depending on the traditional and dependent industrialisation to that relying on the emerging technology innovation and service development to achieve the transition from the separation of industry and city caused by rapid urbanisation to the human-based integration of those.

Joint efforts of all levels are needed from policy formulation to implementation. Firstly, in the transition of population, the human-based concept should be embedded in the whole process of the household registration system reform, the basic public service system should be gradually adapted to high-quality development, and the refined services and humanised management of the people who move to cities from rural areas should be strengthened. Secondly, the role of the market in resource allocation should be strengthened by establishing transparent and perfect secondary markets, such as land transfer, lease, and mortgage. Finally, in addition to improving the quality of the working-age population, the government should improve the security system for high-tech talents and achieve the industry transition with the advantage of talent reserve.

A few limitations remain in this research. Firstly, it mainly reviewed 15 major country-level policies, while the lower-level, such as province-level and city-level, have yet to be analysed due to the large number and frequent updates of these documents. Secondly, this paper focused on these three elements of new-type urbanisation, but its content is considerable and complex. Other aspects might also influence the process and development. Lastly, while the objectives in this paper are country-level policies and their implementations, there was a lack of a specific case to verify the policy implements at the local level. Hence, future research can explore these gaps to further develop China's urbanisation research.

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### References

International Energy Agency. World Energy Outlook 2011. Available online: https://www.oecd-ilibrary.org/content/publication/weo-2011en (accessed on 20 October 2020).

- 2. Gleick, P.H. Global freshwater resources: Soft-path solutions for the 21st century. *Science* **2003**, *302*, 1524–1528. [CrossRef] [PubMed]
- 3. Geels, F. The role of cities in technological transitions: Analytical clarifications and historical examples. In *Cities and Low Carbon Transitions*; Routledge: Abingdon-on-Thames, UK, 2010; pp. 29–44.
- 4. Gil, N.; Beckman, S. Introduction: Infrastructure meets business: Building new bridges, mending old ones. *Calif. Manag. Rev.* **2009**, *51*, 6–29. [CrossRef]
- 5. United Nations Environment Programme. *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication;* UNEP: Nairobi, Kenya, 2011. Available online: www.unep.org (accessed on 22 October 2020).
- 6. Ye, Q.; Qijiao, S.; Xiaofan, Z.; Shiyong, Q.; Lindsay, T. *China's New Urbanisation Opportunity: A Vision for the 14th Five-Year Plan*; Coalition for Urban Transitions: London, UK; Washington, DC, USA, 2020.
- 7. International Labour Organisation. COVID-19 and the World of Work: Country Policy Responses; ILO: Geneva, Switzerland, 2020.
- 8. United Nations. Achieving SDGs in the Wake of COVID-19: Scenarios for Policymakers; United Nations: New York, NY, USA, 2020; p. 6.
- 9. Deng, W.; Cheshmehzangi, A. Eco-Development in China: Cities, Communities and Buildings; Springer: Singapore, 2018.

Sustainability **2022**, 14, 6341 13 of 15

10. Zhao, P.; Zhang, M. The impact of urbanisation on energy consumption: A 30-year review in China. *Urban Clim.* **2018**, 24, 940–953. [CrossRef]

- 11. Nevens, F.; Frantzeskaki, N.; Gorissen, L.; Loorbach, D. Urban Transition Labs: Co-creating transformative action for sustainable cities. *J. Clean. Prod.* **2013**, *50*, 111–122. [CrossRef]
- 12. Liu, S.; Xia, Y. The Development Road of Low-carbon Economy under the New Urbanization Background. *J. Soc. Sci. Hunan Norm. Univ.* **2012**, *3*, 84–87.
- 13. Li, H.; Wang, T. Historical Stages of China's Urbanization Since 1949. *Urban Plan. Forum* **2012**, 204, 4–13.
- 14. McGranahan, G.; Satterthwaite, D. *Urbanisation Concepts and Trends*; International Institute for Environment and Development: London, UK, 2014.
- 15. Zhang, X.; Zhang, L. An Overview of China's Urbanization Policies over the Years and Forecast of Future Urbanization Levels. *J. Yunnan Agric. Univ. (Soc. Sci.)* **2021**, *15*, 20–25.
- 16. China National Statistical Bureau. Bulletin of the Seventh National Census. 2021. Available online: http://www.gov.cn/guoqing/2021-05/13/content\_5606149.htm (accessed on 25 August 2021).
- 17. World Bank. Urban Population (% of Total Population). 2021. Available online: https://data.worldbank.org/indicator/SP.URB. TOTL.IN.ZS (accessed on 10 August 2021).
- 18. Douglass, M. Resilient Urbanism in the Anthropocene–The Rise of Progressive City Regions in Asia's Urban Transition. In Proceedings of the Workshop on Resilience in Asian Urbanism, University of Washington Centre for Asian Urbanisms College of Built Environment, Jackson School of International Studies, Seattle, WA, USA, 28–30 March 2016.
- 19. Hamnett, C. Is Chinese urbanisation unique? *Urban Stud.* **2020**, *57*, 690–700. [CrossRef]
- 20. Forrest, R.; Ren, J. The City in China: New Perspectives on Contemporary Urbanism; Bristol University Press: Bristol, UK, 2019.
- 21. Wu, F. Emerging Chinese Cities: Implications for Global Urban Studies. Prof. Geogr. 2015, 68, 338–348. [CrossRef]
- 22. Shambaugh, D. The China Reader: Rising Power; Oxford University Press: Oxford, UK, 2016.
- 23. Gong, P.; Liang, S.; Carlton, E.J.; Jiang, Q.; Wu, J.; Wang, L.; Remais, J.V. Urbanisation and health in China. *Lancet* 2012, 379, 843–852. [CrossRef]
- 24. Wu, W.; Gaubatz, P. The Chinese City; Routledge: London, UK, 2012.
- 25. World Bank. Urban China: Toward Efficient, Inclusive, and Sustainable Urbanization; World Bank: Washington, DC, USA, 2014.
- 26. Coalition for Urban Transitions. *Accelerating China's Urban Transition*; Tsinghua University: Beijing, China; Hong Kong University of Science and Technology: Hong Kong, China; WRI China: Beijing, China; LSE Cities: London, UK, 2021.
- 27. Lu, D.; Chen, M. Several viewpoints on the background of compiling the "National New Urbanization Planning (2014–2020)". *Acta Geogr. Sin.* **2015**, 70, 175–185.
- 28. Lang, W.; Chen, T.; Li, X. A new style of urbanization in China: Transformation of urban rural communities. *Habitat Int.* **2016**, *55*, 1–9. [CrossRef]
- 29. Chen, M.; Liu, W.; Lu, D. Challenges and the way forward in China's new-type urbanization. *Land Use Policy* **2016**, *55*, 334–339. [CrossRef]
- 30. Zhou, M.; Lin, K.; Wang, Y.; Wang, Y. Strategic Shift and Implementation Path of New Urbanization. Planners 2021, 37, 21–28.
- 31. Cheshmehzangi, A. China's New-type Urbanisation Plan (NUP) and the Foreseeing Challenges for Decarbonization of Cities: A Review. *Energy Procedia* **2016**, *104*, 146–152. [CrossRef]
- 32. Wang, J.; Wang, X. Transition of Chinese urban–rural planning at the new-type urbanization stage. *Front. Archit. Res.* **2015**, *4*, 341–343. [CrossRef]
- 33. Zhu, P. The Course, Achievement and Enlightenment of 70 Years of Urbanisation in New China. Shandong Soc. Sci. 2020, 4, 107–114.
- 34. World Bank. World Development Report 1996: From Plan to Market; World Bank Publications: Washington, DC, USA, 1996; Volume 19.
- 35. North, D.C. Structure and Change in Economic History; W. W. Norton & Co.: London, UK, 1981.
- 36. Wei, H. Strategy of Urban Transformation in China; Institute for Urban and Environmental Studies, Chinese Academy of Social Sciences: Beijing, China, 2011.
- 37. Kolodko, G.W. Ten Years of Post-Socialist Transition Lessons for Policy Reform; World Bank Publications: Washington, DC, USA, 1999.
- 38. Yang, R.; Liu, Y.; Long, H. The Study on Non-Agricultural Transformation Co-Evolution Characteristics of "Population-Land-Industry": Case Study of the Bohai Rim in China. *Geogr. Res.* **2015**, *34*, 475–486.
- 39. Huang, L.; Yang, P.; Zhang, B.; Hu, W. Spatio-Temporal Coupling Characteristics and the Driving Mechanism of Population-Land-Industry Urbanization in the Yangtze River Economic Belt. *Land* **2021**, *10*, 400. [CrossRef]
- 40. Sato, Y.; Yamamoto, K. Population concentration, urbanization, and demographic transition. *J. Urban Econ.* **2005**, *58*, 45–61. [CrossRef]
- 41. Liu, Y.; Zhou, G.; Liu, D.; Yu, H.; Zhu, L.; Zhang, J. The Interaction of Population, Industry and Land in Process of Urbanization in China: A Case Study in Jilin Province. *Chin. Geogr. Sci.* **2018**, *28*, 529–542. [CrossRef]
- 42. Liu, J.; Liu, C.; Daisheng, T. The Evolution Logic, Basic Experience and Reform Path of Urbanization in the Past 70 Years. *Economist* **2020**, *1*, 33–43.
- 43. Sorensen, A. Periurbanization as the institutionalization of place: The case of Japan. Cities 2016, 52, 134–140. [CrossRef]
- 44. Li, T.; Liao, H.; Yang, W.; Zhuang, W.; Shi, J. Urbanization Quality over Time and Space as Well as Coupling Coordination of Land, Population and Industrialization in Chongqing. *Econ. Geogr.* **2015**, *35*, 65–71.

Sustainability **2022**, 14, 6341 14 of 15

45. Lin, G.C.S.; Ho, S.P.S. The State, Land System, and Land Development Processes in Contemporary China. *Ann. Assoc. Am. Geogr.* **2005**, *95*, 25. [CrossRef]

- 46. Kuang, W.; Chi, W.; Lu, D.; Dou, Y. A comparative analysis of megacity expansions in China and the U.S.: Patterns, rates and driving forces. *Landsc. Urban Plan.* **2014**, *132*, 121–135. [CrossRef]
- 47. Friedmann, J. Four Theses in the Study of China's Urbanization. Int. J. Urban Reg. Res. 2006, 30, 12. [CrossRef]
- 48. Deng, X.; Huang, J.; Rozelle, S.; Uchida, E. Growth, population and industrialization, and urban land expansion of China. *J. Urban Econ.* **2008**, *63*, 96–115. [CrossRef]
- 49. Lin, G.C.S. Reproducing Spaces of Chinese Urbanisation: New City-based and Land-centred Urban Transformation. *Urban Stud.* **2007**, *44*, 1827–1855. [CrossRef]
- 50. Pan, W.; Du, J. Towards sustainable urban transition: A critical review of strategies and policies of urban village renewal in Shenzhen, China. *Land Use Policy* **2021**, *111*, 105744. [CrossRef]
- 51. Nightingale, A. A guide to systematic literature reviews. Surgery 2009, 27, 381–384. [CrossRef]
- 52. CPC Central Committee. The Report to the 18th CPC National Congress; Effective 2012; CPC Central Committee: Beijing, China, 2012.
- 53. CPC Central Committee. *Decision of the CPC Central on Several Major Issues Concerning Comprehensively Deepening the Reform*; Effective 2013; CPC Central Committee: Beijing, China, 2013.
- 54. National Development and Reform Commission. *National New-Type Urbanisation Plan* (2014–2020); Effective 2014; National Development and Reform Commission: Beijing, China, 2014.
- 55. State Council. Opinions of the State Council on Further Promotion of Reform of the Household Registration System; Effective 2014; State Council: Beijing, China, 2014.
- 56. Ministry of Land and Resource. *Guiding Opinions of the Ministry of Land and Resources on Advancing the Economical and Intensive Use of Land*; Effective 2014; Ministry of Land and Resource: Beijing, China, 2014.
- 57. State Council. Made in China 2025; Effective 2015; State Council: Beijing, China, 2015.
- 58. State Council. Notice of the State Council on Approving and Relaying the Opinions of the National Development and Reform Commission on Key Work for Deepening the Reform of the Economic System in 2015; Effective 2015; State Council: Beijing, China, 2015.
- 59. National Development and Reform Commission. *Outline of the 13th Five-Year Plan for the National Economic and Social Development of the PRC*; Effective 2016; National Development and Reform Commission: Beijing, China, 2015.
- 60. State Council. Several Opinions of the State Council on Further Promotion of Construction of New-Type Urbanisation; Effective 2016; State Council: Beijing, China, 2016.
- 61. State Council. National Population Development Plan (2016–2030); Effective 2017; State Council: Beijing, China, 2017.
- 62. State Council. *Notice of the State Council on Releasing 13th Five-Year Plan for Promoting Equal Basic Public Services*; Effective 2017; State Council: Beijing, China, 2017.
- 63. State Council. Report on the Work of the Government in 2018; Effective 2018; State Council: Beijing, China, 2018.
- 64. National Development and Reform Commission. *Notice of the National Development and Reform Commission on Implementing the Key Tasks of Promoting New-Type Urbanisation in 2018*; Effective 2018; National Development and Reform Commission: Beijing, China, 2018.
- 65. National Development and Reform Commission. *Key Tasks for New-Type Urbanisation in 2019*; Effective 2020; National Development and Reform Commission: Beijing, China, 2020.
- 66. National Development and Reform Commission. *Key Tasks for New-Type Urbanisation and Integrated Urban and Rural Development in 2020*; Effective 2020; National Development and Reform Commission: Beijing, China, 2020.
- 67. China Statistical Bureau. China Statistic Yearbook 2020. Available online: http://www.stats.gov.cn/tjsj/ndsj/2020/indexch.htm (accessed on 23 August 2021).
- 68. China National Statistical Bureau. Annual Statistics of China National Statistical Bureau. 2021. Available online: https://data.stats.gov.cn/easyquery.htm?cn=C01 (accessed on 26 August 2021).
- 69. Lv, C.; Tan, M.; Yu, B. Urban Land Expansion and its Resources and Environment Problems in The Process of Urbanization in China. *Sci. Technol. Innov. Her.* **2010**, *3*, 129–130.
- 70. Yuan, F.; Chen, Z. New Urbanization in the New Era: The Element Structure and Path Optimization. *J. Cent. China Norm. Univ.* (*Humanit. Soc. Sci.*) **2020**, *59*, 20–29.
- 71. Zhu, J.; Fan, C.; Shi, H.; Shi, L. Efforts for a Circular Economy in China: A Comprehensive Review of Policies. *J. Ind. Ecol.* **2018**, 23, 110–118. [CrossRef]
- 72. Hu, A. China Entering Post-industrial Era. J. Beijing Jiaotong Univ. (Soc. Sci. Ed.) 2017, 16, 1–16.
- 73. China National Statistical Bureau. Statistical Bulletin of the People's Republic of China on National Economic and Social Development 2020. 2021. Available online: http://www.stats.gov.cn/tjsj/zxfb/202102/t20210227\_1814154.html (accessed on 26 August 2021).
- 74. Kong, X.; Chen, J.; Liu, D.; Zhao, X. Spatial differentiation and hierarchical collaborative zoning of rural homestead withdrawal potential: A case study of Yicheng City, Hubei Province. *Resour. Sci.* **2021**, *43*, 1322–1334.
- 75. Xu, M. The Experience of Migrant Workers and the Success Rate of returning Migrant Workers' Entrepreneurship: A Counterfactual Estimation Based on Propensity Score Matching. *J. Cap. Univ. Econ. Bus.* **2020**, 22, 70–79.
- 76. Zhang, W.; Ma, Y.; Li, X.; Zhuo, H. China's New-type Urbanization from the Perspective of Modernization. *Urban Dev. Stud.* **2021**, 28, 8–13, 26.
- 77. Xia, Y.; Lu, M. Can Policies Sustain an Even Distribution of Human Capital: Let History Tell Future. Acad. Mon. 2018, 50, 45–55.

Sustainability **2022**, 14, 6341 15 of 15

78. Huang, W. Response of Urban Regeneration to The Evolution of Urban Governance: A Pioneering Experiment of Shenzhen. *Cities Plan. Rev.* **2021**, *45*, 19–29.

- 79. Tang, Y.; Zhang, L.; Liu, S. Hotspot review of research and practice of urban regeneration in 2019. Sci. Technol. Rev. 2020, 38, 148–156.
- 80. Zhang, Z.; Li, G.; Gong, Y.; Luo, G. Social Cognition and Evolution of Land Value-Added Benefits in Urban Village Reconstruction in Shenzhen. *Urban Probl.* **2019**, 293, 31–40.
- 81. Bowen, G.A. Document analysis as a qualitative research method. Qual. Res. J. 2009, 9, 27–40. [CrossRef]
- 82. Wuetherick, B. Basics of qualitative research: Techniques and procedures for developing grounded theory. *Can. J. Univ. Contin. Educ.* **2010**, 36. [CrossRef]
- 83. Rapley, T. Doing Conversation, Discourse and Document Analysis; Sage: London, UK, 2018.
- 84. Labuschagne, A. Qualitative research: Airy fairy or fundamental. Qual. Rep. 2003, 8, 100-103. [CrossRef]
- 85. Pollitt, C.; Bouckaert, G. Public Management Reform: A Comparative Analysis-Into the Age of Austerity; Oxford University Press: Oxford, UK, 2017.