

**Modern Chinese Economy 1/2566**

**China's Technology and Economic Growth of China**

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**A Project Submitted in Partial Fulfillment of Requirements  
for the Degree of Bachelor of Engineering  
Department of Computer Engineering  
Faculty of Engineering  
Chiang Mai University  
2023**

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Academic Year : 2023

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### **ABSTRACT**

This term paper is a part of assignment of Modern Chinese Economy on the topic of "The China's Technology and Economic Growth of China" to understand Chinese Economy. That is important since China becomes the world's economic and technological superpower. I am going to explain insight information about Chinese Technology by integrating various researches in order to obtain widespread information including references where I take it from. The key point is the heart of China's technological growth. Furthermore, I must realize and conclude them by summarizing to the last chapter. This finding is essential because Thailand should not stop growing, Thailand must keep running and moving forward China.

## **Acknowledgments**

I would like to express my heartfelt acknowledgment of the remarkable technological and economic progress achieved by the People's Republic of China. Over the past few decades, China has undergone an extraordinary transformation, emerging as a global powerhouse in both technology and economics.

I extend my appreciation to the Chinese government, entrepreneurs, scientists, and the entire Chinese population for their relentless pursuit of excellence and their enduring contributions to the advancement of technology and economic development. The lessons learned from China's experience serve as an inspiration and valuable reference point for nations seeking to achieve similar progress.

acknowledgment environment.

Newin Yamaguchi

7 October 2023

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# Chapter 1

## Introduction

### 1.1 Paper rationale

Why I choose this topic? Technological change is often seen as something that follows its own logic - something we may welcome, or about which we may protest, but which we are unable to alter fundamentally. This reader challenges that assumption and its distinguished contributors demonstrate that technology is affected at a fundamental level by the social context in which it develops. General arguments are introduced about the relation of technology to society and different types of technology are examined [6].

The book draws on authors from Karl Marx to Cynthia Cockburn to show that production technology is shaped by social relations in the workplace. It moves on to the technologies of the household and biological reproduction, which are topics that male-dominated social science has tended to ignore or trivialise - though these are actually of crucial significance where powerful shaping factors are at work, normally unnoticed.

Since 1978, China has achieved unprecedented economic growth, but also faces low per capita GDP [3]. To clarify the driving forces behind this situation, we used per capita GDP to represent China's economic growth and performed total factor analysis based on 13 variables in 7 socioeconomic dimensions using panel data from 30 Chinese provinces over the 40 years since China opened to the west in 1978. We found similar determinants in different regressions.

### 1.2 Objectives

1. Understanding the Historical Context: Explore how China transitioned from a largely agrarian society to a global economic powerhouse [4].
2. Evaluating Economic Growth Metrics: Analyze key economic indicators [8] such as GDP growth, per capita income and trade balances.
3. Identifying Key Policy Initiatives: Explore the role of government policies in promoting economic growth and technological innovation in China.

### 1.3 Impacts of this term paper

Studying the relationship between public R&D subsidies and private innovation investments in the China context offers an interesting case. China's R&D investments as a share of GDP nearly doubled from 0.9 percent to 1.6 percent in just one decade from 2000 to 2010, with more than half of these investments coming from large and medium-sized enterprises (LMEs) by 2010 [1]

1. Academic Insights: Research on China's economic growth provides valuable data and insights for economists studying development, trade, and economic theory.
2. Technology Policy: Knowledge about China's technology policies and innovation ecosystem can inform technology and innovation policies in other countries [7].
3. Market Entry Strategies: Understanding China's economic growth helps businesses formulate market entry strategies and adapt to evolving consumer preferences and market conditions.
4. Supply Chain Management: China's role in global supply chains is significant, and businesses need insights into China's economic landscape for effective supply chain management [5].
5. Trade Relations: China's economic growth affects trade relations globally, with implications for multinational corporations, supply chains, and global commerce.
6. Social Impacts: Understanding China's growth helps researchers assess the social consequences, including income inequality, urbanization, and labor markets [2].



## Chapter 2

### Historical Context

The historical context of China's technology is a rich and multifaceted story that spans thousands of years. We can separate historical periods and developments that provide insight information.

#### 2.1 Late 20th Century to Present

- China's rapid economic growth has been accompanied by significant advancements in technology across various sectors, including telecommunications, manufacturing, and space exploration.
- China has become a global leader in areas such as 5G technology, e-commerce, and renewable energy.

#### 2.2 21st Century Challenges and Ambitions

- China has set ambitious goals for technological innovation, including initiatives like "Made in China 2025" aimed at becoming a global leader in advanced manufacturing and technology.
- The Belt and Road Initiative seeks to promote infrastructure development and technology transfer on a global scale.

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#### 2.3 Third section

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$$k_1 = \frac{\omega}{c(1/\epsilon_m + 1/\epsilon_i)^{1/2}} = k_2 = \frac{\omega \sin(\theta) \epsilon_{air}^{1/2}}{c} \quad (2.1)$$

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where  $\omega$  is the frequency of the plasmon,  $c$  is the speed of light,  $\epsilon_m$  is the dielectric constant of the metal,  $\epsilon_i$  is the dielectric constant of neighboring insulator, and  $\epsilon_{air}$  is the dielectric constant of air.

## 2.4 About using figures in your report

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Table 2.1: Sample landscape table

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1990	4	9
1991	3	6

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## **2.6 ISNE knowledge used, applied, or integrated in this project**

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## **2.7 Extracurricular knowledge used, applied, or integrated in this project**

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## Chapter 3

### Literature Review

ในบทนี้จะกล่าวถึงหลักการ และการออกแบบระบบ

#### 3.1 Alice in Wonderland

##### 3.1.1 The Black Kitten

One thing was certain, that the WHITE kitten had had nothing to do with it:—it was the black kitten’s fault entirely [?]. For the white kitten had been having its face washed by the old cat for the last quarter of an hour (and bearing it pretty well, considering); so you see that it COULDN’T have had any hand in the mischief.

The way Dinah washed her children’s faces was this: first she held the poor thing down by its ear with one paw, and then with the other paw she rubbed its face all over, the wrong way, beginning at the nose: and just now, as I said, she was hard at work on the white kitten, which was lying quite still and trying to purr—no doubt feeling that it was all meant for its good.

But the black kitten had been finished with earlier in the afternoon, and so, while Alice was sitting curled up in a corner of the great arm-chair, half talking to herself and half asleep, the kitten had been having a grand game of romps with the ball of worsted Alice had been trying to wind up, and had been rolling it up and down till it had all come undone again; and there it was, spread over the hearth-rug, all knots and tangles, with the kitten running after its own tail in the middle.

##### 3.1.2 The Reproach

‘Oh, you wicked little thing!’ cried Alice, catching up the kitten, and giving it a little kiss to make it understand that it was in disgrace. ‘Really, Dinah ought to have taught you better manners! You OUGHT, Dinah, you know you ought!’ she added, looking reproachfully at



Figure 3.1: The Walrus and the Carpenter

the old cat, and speaking in as cross a voice as she could manage—and then she scrambled back into the arm-chair, taking the kitten and the worsted with her, and began winding up the ball again. But she didn't get on very fast, as she was talking all the time, sometimes to the kitten, and sometimes to herself. Kitty sat very demurely on her knee, pretending to watch the progress of the winding, and now and then putting out one paw and gently touching the ball, as if it would be glad to help, if it might.

'Do you know what to-morrow is, Kitty?' Alice began. 'You'd have guessed if you'd been up in the window with me—only Dinah was making you tidy, so you couldn't. I was watching the boys getting in stick for the bonfire—and it wants plenty of sticks, Kitty! Only it got so cold, and it snowed so, they had to leave off. Never mind, Kitty, we'll go and see the bonfire to-morrow.' Here Alice wound two or three turns of the worsted round the kitten's neck, just to see how it would look: this led to a scramble, in which the ball rolled down upon the floor, and yards and yards of it got unwound again.

'Do you know, I was so angry, Kitty,' Alice went on as soon as they were comfortably settled again, 'when I saw all the mischief you had been doing, I was very nearly opening the window, and putting you out into the snow! And you'd have deserved it, you little mischievous darling! What have you got to say for yourself? Now don't interrupt me!' she went on, holding up one finger. 'I'm going to tell you all your faults. Number one: you squeaked twice while Dinah was washing your face this morning. Now you can't deny it, Kitty: I heard you! What that you say?' (pretending that the kitten was speaking.) 'Her paw went into your eye? Well, that's YOUR fault, for keeping your eyes open—if you'd shut them tight up, it wouldn't have happened. Now don't make any more excuses, but listen! Number two: you pulled Snowdrop away by the tail just as I had put down the saucer of milk before her! What, you were thirsty, were you?

## **Chapter 4**

### **Basic Conceptual framework**

ในบทนี้จะทดสอบเกี่ยวกับการทำงานในฟังก์ชันหลักๆ

## **Chapter 5**

### **Policy Recommendation**

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## **Chapter 6**

### **Conclusions and Discussions**

#### **6.1 Conclusions**

นศ. ควรสรุปถึงข้อจำกัดของระบบในด้านต่างๆ ที่ระบบมีในเนื้อหาส่วนนี้ด้วย

#### **6.2 Challenges**

ในการทำโครงงานนี้ พบว่าเกิดปัญหาหลักๆ ดังนี้

#### **6.3 Suggestions and further improvements**

ข้อเสนอแนะเพื่อพัฒนาโครงงานนี้ต่อไป มีดังนี้

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## Appendix A

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#### A.1 Appendix section

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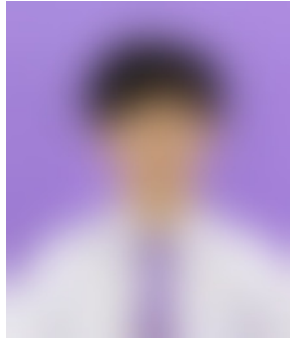
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## **Appendix B**

### **Manual**

Manual goes here.

## **Biographical Sketch**



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