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Responding to surprise:

China's economic miracle as a challenge to established theory

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Abstract

With this thesis, I seek to advance debates on the question of what constitutes "good scholarship". I do so by investigating how a specific set of social scientists – proponents of the theory of Public Choice – have responded to the unexpected evidence from China's recent economic history. Through a qualitative reading of relevant academic publications, I explore the different means by which Public Choice scholars reconcile China's developmental advances with their theory's skepticism vis-à-vis a large and regulatorily powerful state. I come up with a classification of five response strategies: (1) ignoring the challenging evidence; (2) denying implicitly that there is a challenge by refusing to reconsider Public Choice's core assumptions and claims about the effects of a powerful state on economic growth; (3) denying explicitly that there is a challenge by re-interpreting the evidence from China's recent history and de-emphasizing the role of the state in the country; and adapting their theoretical framework through (4) a modification of its assumptions or (5) the addition of new variables, both of which is done to enable the theory to account for the developmental success in state-dominated economies under certain conditions. I close the thesis with a discussion of the investigation's limitations, and with a critical normative assessment of the Public Choice researchers and their treatment of challenging evidence.

Character count: 142,562 (incl. spaces and footnotes; excl. title page, table of contents, abstract, references, and appendix)

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1. Introduction

Set-up: The People's Republic of China (PRC) has experienced remarkable economic growth in recent decades, which is in spite of multiple predictions to the contrary (for commentary, compare Orlik 2021, esp. Chapter 12; Irvine 2013, pp. 52-67) and challenges received wisdom in countries of the "Global North" (Oi and Walder 1999). The Chinese decision-makers' refusal to endorse a policy program of comprehensive and rapid economic and political liberalizations has gone against the advice of many economists and pundits. The call to drastically alter (i.e., reduce) the role of the party-state in economic affairs has emanated from international institutions such as the World Bank, from media and think tank commentaries, and also from academic publications, which have given intellectual credibility and authority to the "creed of the free market" across the world (for a critical analysis of the recommendations by international organizations and think tanks, compare Chang 2011; for such an analysis concerning economists in academia, compare Sanders and Chen 2005, esp. pp. 231-233; and Weber 2021).

Problem statement: The framing of China as a surprise and challenge to purportedly universal theories of economic development has by now been well-substantiated by Chinese analysts as well as by foreigners (Li and Cheong 2019; O'Brien 2018; Chun 2017; Horesh and Lim 2017; Heilmann 2016, esp. pp. 30-36; Cheng and Xie 2016, 9; Whyte 2009; Clarke 2003; X. Zhang 2000). My thesis takes that frame as a starting point and seeks to go one step further by asking how proponents of the theories in question[1] have reacted to that apparent challenge. Hence, the problem formulation (in the form of a research question) which I pursue with this investigation runs as follows:

> *How do social science scholars respond to conflicting evidence? More specifically, how has the Public Choice research program responded to the developmental success China experienced?*

Thesis objectives: In approaching this puzzle, I deal with a number of preceding, subsidiary, and follow-up concerns. First, I justify my problem formulation by outlining the ways in which China's recent past does, in fact, contradict or challenge the expectations that would be derived from Public Choice theory. Next, I pose three sub-questions to guide my empirical analysis: (1) How has the Public Choice analysis of China evolved throughout the last half century? (2) How have individual Public Choice scholars integrated the Chinese experience in their model and theoretical understanding of the world? (3) How has the prominence and standing of Public Choice as a research program within the broader academic field shifted across time? Going beyond the empirical analysis of what *is*, I then reflect on whether and how a comprehensive historical overview of scholarly developments can contribute to an assessment of Public Choice as a research program. In conjunction, I hope that my treatment of these different concerns and questions will provide myself and the reader with a better understanding of the problem I formulated above.

Outline: The remainder of the paper is structured as follows: In section 2, I will lay out the rationale and objectives that motivate the thesis, and then explain the methods, theories, and data I selected for approaching an answer. I further discuss the theories that guide the empirical investigation in section 3, and derive expectations for how Public Choice has reacted to challenging evidence from China. Next comes the empirical analysis, which is

[1] As stated in the problem formulation, I do not examine all the theories that have been said to be challenged by the Chinese experience. Instead, I focus on the Public Choice research program, which is very critical of state interventions in the economy and their effects on national development/prosperity. Below, I will provide further details and justification for why China's economic success is a challenge to Public Choice and its skepticism of the state.

divided into multiple distinct parts according to the sub-questions I outlined above: First, I introduce the research program of Public Choice, and demonstrate how China's recent history is in conflict with its core tenets. Part one of the data analysis then investigates developments in the Public Choice research program (by studying publications in its flagship journal, aptly named *Public Choice*), part two narrows in on individual Public Choice scholars, and part three zooms out to analyze the larger academic field that Public Choice is situated within.

In the last section, I first summarize my empirical investigation, its findings, and its limitations, and then discuss the results on normative grounds, by which I mean that I engage in a philosophical deliberation on how scholars *ought to* behave and that I examine the extent to which Public Choice scholars in my analysis deviate from the ideal. To do this, I briefly recap and justify my own stance on the issue (Bayesian epistemology), and then give an assessment of the scholars and the research program I chose to study.

2. Methodology

2.1 Rationale and objectives of the thesis

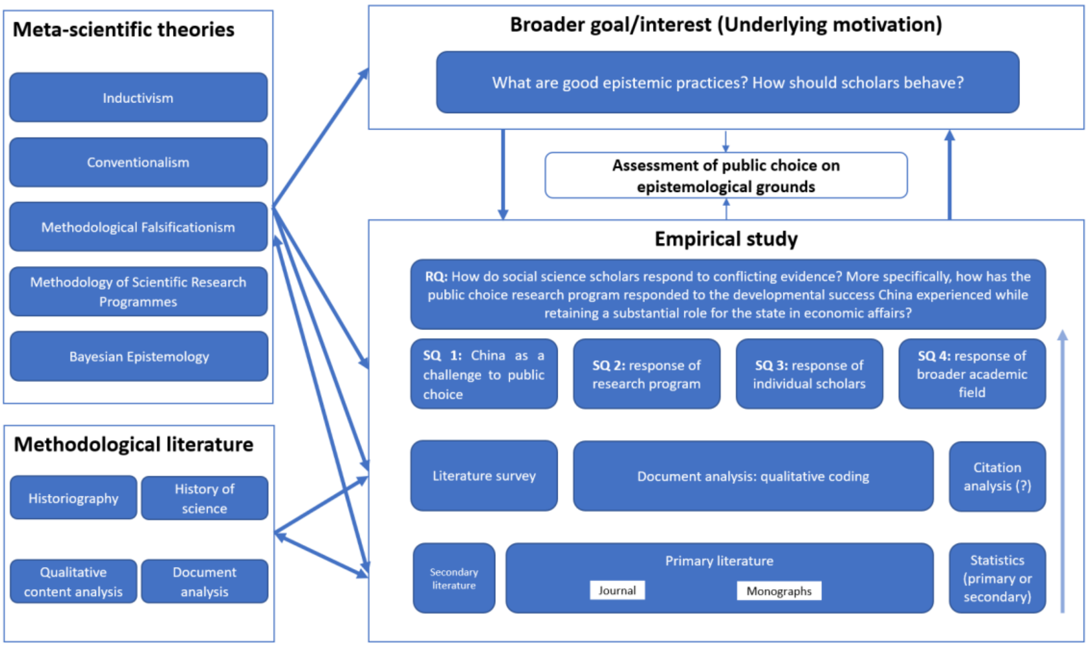

Figure 1: Overview of research design (for a larger version of the diagram, see Appendix).

Thesis structure: In this thesis, I set out to provide a detailed description and analysis of a specific episode in the history of social science scholarship, namely the response of the Public Choice research program to China's unexpectedly rapid and sustained development in the last ~four decades. This empirical investigation forms the core of my thesis, and it is divided into four parts, each concerned with an empirical sub-question:

- SQ 1: How does the Chinese growth experience of the last few decades challenge claims, ideas, theories, and predictions in Public Choice theory?
- SQ 2: How has the Public Choice analysis of China evolved throughout the last half century? Have practitioners of the research program discussed China's economic success and the role of the state therein? Did they acknowledge misperceptions in and inadequacies of the program's theories or predictions?
- SQ 3: How have individual Public Choice scholars integrated the Chinese experience in their model and theoretical understanding of the world? For those who issued specific claims, ideas, theories, or predictions which were later challenged by China's development: Did they revise their statements across the following decades? Did they ever mention China when discussing their prior or current views?
- SQ 4: How has the prominence and standing of Public Choice as a research program within the field of comparative economic systems shifted across time? Have other claims, ideas, theories, or predictions, more in line with the Chinese growth experience, gained in prominence?

A satisfactory response to SQ 1 is necessary to *justify* the overarching research question (if I cannot show convincingly that evidence from China does, in fact, challenge the Public Choice research program, then there is no point in asking how the latter responded to the challenge), whereas addressing SQs 2-4 should (hopefully) allow me to *answer* that overarching question. I employ different methods and types of data to tackle the sub-questions, all of which will be documented and explained in more depth below.

The empirical study is informed by theoretical literature from the philosophy of science and by methodological literature. I have relied on insights from these two fields to choose appropriate methods and data sources for my investigation, and also to learn how to employ those methods correctly and what to pay attention to when interpreting data and findings. Methodological sources gave me a general understanding of the methods on offer; sources from the philosophy of science (meta-scientific theories[2]) helped me in seeing and fleshing out how these methods could be used to approach my research subject more specifically. In addition to these purposes, the latter sources also guided my construction of sub-questions and they are relevant for relating my study to interests of inquiry that go beyond the purely empirical (more on that below).

Thesis goals: The "immediate" aim of the empirical analysis is "simply" to construct a coherent narrative of the responses of individual scholars and their disciplinary field. I use advice from historiography and qualitative research (compare, for instance, Kinzel 2015, p. 55) to check the "accuracy and fairness" of my analysis, hoping to produce an account of affairs that is not overly distorted by my own preconceptions and biases, i.e. an account that would be accepted (at least in its broad outlines) both by the protagonists of my narrative (the scholars whose work I analyze) and by a hypothetical outside historian/analyst looking at the same subject of inquiry.

This account (or narrative) thus makes a strong claim to internal validity, which is fulfilled insofar as I manage to minimize bias and distortions and to avoid an overly selective reading of the evidence. As regards external validity, my aspirations are much lower. I do not aim for findings that can be applied mindlessly (without adaptation) to other cases; rather, I hope to produce a description and analysis that can give inspiration and some heuristic guidance for observing developments in similar contexts. I contend that my study sheds some light on the usefulness of the selected theories as empirical models of scientific practice, but I do not claim that the evidence I produce is sufficient for rejecting any of the theories considered, nor for coming up with new generalizable hypotheses on how scholars change and adapt their beliefs and convictions.

Beyond these empirical concerns, I also have a broader aim in pursuing this research project, which is to contribute to improvements in the current practice and reception of social science. The rationale for why and how my investigation can aspire to this broader aim is as follows: First, knowing about how scholarship is in fact conducted[3] is a prerequisite for identifying weaknesses and potential pitfalls in the current practice and for coming up with suggestions for improvement. I intend for people with a diverse set of normative ideas to be able to use my empirical findings for assessing Public Choice scholars' practice (in the

[2] By meta-scientific I mean that these theories reflect on science as a practice. They seek to provide a general framework for how scholars and academic disciplines behave, including for how they form and develop beliefs/knowledge.

[3] To reiterate a point I tried to make in the previous paragraph: I do not aspire to producing generalizable knowledge about scholarly practice which could be applied without modification to other episodes, let alone to other fields of social science; whether or not my description of Public Choice's reaction to the Chinese experience is representative for how other scholars respond to unexpected (and paradigm-challenging) evidence is not a question I seek to answer. However, I believe that knowing about the actions of Public Choice practitioners in this particular period gives observers a framework/some heuristics for taking a critical look at other time periods and/or other schools of thought. If the responses identified in my study are common in social science scholarship more generally, I expect that the exploratory work of my thesis will make it easier to spot these common response patterns in other places. I thus hope that people interested in other fields will be able to tell without much in-depth study whether the results from my analysis are relevant to their area of interest.

episode I study) based on their particular views of how scholarship ought to be conducted. Hence, the historical account I offer in the empirical analysis aims to be valid and insightful regardless of the reader's epistemic ideals.

Such an assessment of existing scholarship is, I believe, relevant both for academic practitioners and for onlookers. As already stated, it can serve as a starting point for thinking about and implementing improvements of how academic work is conducted in the field. It can also, I believe, give "consumers" of scholarship better grounds for integrating the "knowledge" Public Choice scholars present into their own model of the world. Being aware of the way in which these academics generate and develop that knowledge, and of the mistakes they are prone to making in the process, helps onlookers – I hope – to walk the difficult line between ignoring or rejecting the research program's insights entirely on the one hand and eating it up unquestioningly on the other.

The previous two arguments (for thinking that my thesis can serve an aim broader than the mere description of a single historical development) point at the way in which my empirical findings can be combined with the reader's own normative stance to hint at conclusions that go beyond the case at hand. In this paragraph, I outline my further belief that a detailed description of actual practice can be useful for normative reflection and debate. Learning about how scholarship is presently conducted may inspire an intuitive judgement on the merits of the observed behavior and of possible alternative behaviors, which can serve to clarify one's own normative views (the empirical case, in other words, may bring to life dormant/subconscious beliefs and values). In addition or besides that, the description can be a starting point for *active* normative reflection. I find that it is usually easier to think and argue about value/virtue questions with reference to concrete example situations (rather than purely in the abstract). With these considerations in mind, the empirical account produced by this thesis is also aimed at contributing to discussions about how scholarship ought to be conducted[4]; in fact, this broader aim of advancing discussions regarding the ought of scholarly practice was and is the underlying motivation that led me to pursue this research project in the first place.

My research question does not allude to the broader aims I just outlined, nor will these broader aims feature in my write-up of the empirical investigation (see chapter 4 below). However, they do become relevant in the discussion section of the thesis, where I seek to derive implications from my findings that go beyond a merely empirical analysis of the evidence.

2.2 Choice of methods and data

Answering each sub-question listed above requires its own data collection and analysis process. A detailed specification on my analysis procedure (incl. a meticulous documentation of the data consulted) will be given in the analysis chapters; here, I provide a broad outline of my choice of methods and data. For SQ 1, on how the example of China challenges Public Choice as a research program, I rely on *primary and secondary literature* from and about Public Choice and its core characteristics, and on secondary literature about China's recent economic history, both of which are collected through an unsystematic *literature survey* of Internet databases and archives.

When it comes to reconstructing Public Choice's disciplinary as well as individual scholars' response to conflicting evidence (to tackle the second and third of my sub-questions), I

[4] I wish to emphasize that I agree with the Humean claim that an *ought* cannot be derived from an *is* (Pigden 2011). What I mean to say instead is that increased clarity of the present situation can help clarify thoughts and conversations about the desired situation.

conduct a *qualitative* analysis of relevant written *documents*. For SQ 2, an obvious starting point for data collection is the research program's flagship journal, *Public Choice* (https://www.springer.com/journal/11127)[5]. The articles in that journal serve as the main source for my study of how the research program itself has, or has not, changed in response to China's unexpected economic success story. I use the journal's online search option to extract all articles that mention "China" anywhere in the text and which were published between 1966[6] and 2021, filter out irrelevant articles through a first screening of their abstracts, and then study the remaining articles through *qualitative content analysis*, mixing theory- and data-driven coding procedures (based on the methodology developed by Schreier 2012; more detail on this will be provided in the beginning of section 4.3).

As regards SQ 3, my methods remain the same (qualitative content analysis of relevant documents, based on an analytic scheme that is informed both by existing theories and by my engagement with the empirical subject matter), but the data collection process is a bit less straightforward. The individuals to be studied more in-depth emerge from the insights gained while investigating SQ 2, which is to say that I find and select them because they are mentioned often in the *Public Choice* articles that deal with China. The chosen scholars are:

- Gordon Tullock (and James M. Buchanan), the originator(s) of the research program;
- William Niskanen, one of the foremost contributors to a Public Choice analysis of bureaucracy; and
- Ronald Wintrobe, one of the foremost contributors to a Public Choice analysis of autocracy.

In order to study their intellectual development and response to "the China challenge," I conduct an *online search* for any and every publication or statement by these scholars that has relevance for the topic of my research question. I then give an in-depth account of how they treat the evidence of China's economic success and relate that account to the findings from my journal analysis (subchapter 4.3) and to my study of relevant theories (chapter 3).

Lastly, I conduct a citation analysis to investigate SQ 4: I look at how the Public Choice research program and its core proponents are referenced by prominent publications in the wider academic field, and whether those citation patterns change across time. Through this, I seek to give some indicative evidence of whether or not the prominence of the Public Choice research program has declined at a time when it saw itself confronted with evidence that challenges its core propositions. This last piece of analysis is limited in a number of ways and its findings are presented as the starting point for deeper and more rigorous study.

2.3 Choice of theories

In this section and chapter 3 of the thesis, I discuss a number of meta-scientific theories that are used to inform and guide my empirical research process. These are theories about how scientists and scholars behave, and how they change their views in response to existing evidence. To avoid confusion: These meta-scientific theories are among the *tools* I use in my own research, and their role for my investigation is thus quite different from another theory

[5] While it is not the highest-ranked journal relative to others in either the field of political science or economics, it is the outlet that bears closest connections to the research program I have set out to study for this thesis. The publishing guidelines of the selected journal ensure that the articles I include in the analysis are situated squarely within the school of Public Choice. Furthermore, since the journal is part of the institutional set-up that underpins the Public Choice research program, it seems likely that the articles published therein reflect developments in the discipline more broadly.

[6] The archive of the journal goes back to the year it was founded, which is 1966. However, it was not until 1973 that an article containing the word "China" was published, so my sample does not include any papers from before 1973.

that appears quite prominently in this thesis: the theory (or research program) of Public Choice, which is the *subject* of my research.

The range of existing theories about people's response to conflicting evidence, which I could use as a guide for the empirical analysis, is vast; a survey thereof could probably be its own independent research project. Relevant literature on the topic can be found in various philosophical schools (epistemology, philosophy of science, formal logic), and in academic fields ranging from the history and sociology of science/knowledge (Kuhn 1962; Daston 2009; Leahey 2008) to cognitive psychology (Greene, Sandoval, and Bråten 2016) and neuroscience. It can also be found in critical and self-reflective debates in various disciplines and schools of thought (compare, for instance, reflections by International Relations scholars on how to respond intellectually to the unexpected developments surrounding the end of the Cold War: Gaddis 1993), and in several interdisciplinary attempts to conceptualize and study knowledge production in and beyond academia (examples are the concept of epistemic communities, see Meyer and Molyneux-Hodgson 2010; the categorization of experts as foxes and hedgehogs, see Tetlock and Gardner 2016; and the study of theoretical paradigms as "academic fashions,", see Libiseller forthcoming). In addition, there are commentaries that come from outside formal academic institutions, which give potentially relevant and interesting insights on the topic (e.g., Freitas-Groff 2018 on belief change by policy-makers).

While I wouldn't deny that engagement with the breadth of the existing theoretical landscape on belief change/retention is worthwhile and adds to an understanding of specific developments, I limit myself in this thesis to a select number of theories: four approaches as identified by the eminent philosopher of science Imre Lakatos (1970), complemented by Bayesian epistemology as an approach that is close to my own meta-scientific convictions. Such a limitation is necessary for practical reasons (constraints of time, space, and skills[7]), and I argue that it is justifiable given the purposes of this thesis: The reason for discussing these meta-scientific theories at all is to have a transparent foundation from which to conduct the empirical investigation. Following prominent views in historiography (e.g., compare Kuukkanen 2012; and Kinzel 2015, on the historiography of science in particular), I recognize that empirical analyses never start from a blank-slate and cannot be based on objective, value- and theory-free observations of the evidence. Instead, these observations and empirical analyses are always guided by theoretical preconceptions about which pieces of data are relevant, and about how the evidence is to be conceptualized and interpreted. Given this necessity of theoretical preconceptions, it has been asserted – and I am at least sympathetic to the view – that it is preferable for analysts to discuss their theoretical commitments openly, instead of claiming that they are (or seek to be) completely unbiased in how they approach their research (Jackson 2016, Chapter 5, esp. p. 158). Hence, the discussion of theories in this thesis is not geared towards discovering the one theory that is most accurate or has most explanatory power for my subject of investigation; rather, I intend to use existing theories to help me make my assumptions and expectations for the empirical research transparent. I contend that this goal can be achieved better if I focus on an existing collection of theories rather than if I surveyed the plethora of different theoretical strands and families that exist on the topic at hand, since the latter approach runs a serious risk of generating more confusion (due to information overload) than illumination.

Having said that, what remains to be justified is the selection specifically of Lakatos' collection of theories, and of Bayesian epistemology as an addition to this collection. To do this, it seems reasonable to first give a (brief) preview on the theories I chose (to be

[7] Since the landscape of theories relevant to the question of scholarly belief-change is extremely diverse (in approach, conceptualization, and findings), bringing the insights together in a comprehensive review and synthesis would require a level of sophistication that goes beyond what I would have been able to contribute within the time frame set for the thesis.

expanded upon in the next chapter): In Lakatos' prominent account of 20th century's philosophy of science, the empirical question of what scientists do and how scientific progress has been achieved takes center stage. Philosophers of science, according to that account, are impressed by the success of (natural) science (or "the scientific method")[8] and seek to derive lessons and methodological guidelines from the study of successful scientific practice by identifying what it is specifically that demarcates science from non-scientific activities. Lakatos describes the following four "rational reconstructions as guides to history [of science]" (ibid, p. 92)[9]:

- Inductivism: Scientists collect empirical evidence and derive inductive inferences thereof. The body of accepted scientific knowledge is expanded through the addition of new evidence and through the inferences and generalizations that follow.
- Conventionalism: Scientists construct "pigeonhole system[s]" (ibid, p. 94) to capture as much of observed reality as possible in a coherent theoretical framework. They try to integrate new empirical evidence into that system as neatly as possible, but are open to changing the system if a new (often: a simpler) theoretical framework seems better able to bring all the empirical evidence together in a coherent whole.
- Methodological Falsificationism: Scientists come up with strictly testable statements (hypotheses) which they subject to attempts at falsification ("crucial experiments"). Scientific knowledge advances through repeated attempts at falsifying theories, retaining non-falsified theories as provisionally accepted, and replacing falsified theories with new conjectures/hypotheses.
- Methodology of Scientific Research Programmes: Scientists belong to research programs, which have a hard core and a more flexible protective belt. Advancements are achieved either because scientists improve upon their program by adapting the protective belt to account for new evidence (progressive problemshifts), or because a "degenerating" research program is abandoned or loses in prominence.

I want to acknowledge from the outset that I do not think or claim that the choice of relying on Lakatos' account was inevitable or is clearly superior to any other option. Other authors might have arrived at a different set of theories to guide an empirical investigation of my (or a similar) topic, which might well have been equally (or even more) appropriate. What I do want to claim, however, is that Lakatos' collection is one (of possibly many) valid choice(s) for my purposes. The four approaches he identifies represent views that many eminent thinkers on the topic hold (or have held), and they have clear implications for how scholars would respond to conflicting evidence (see chapter 3). Lakatos himself is referenced numerous times by other philosophers of science and also by practitioners of the social sciences (see Elman and Elman 2002), which does, I contend, lend further legitimacy to my reliance on his framework. Last but not least, Lakatos' collection is well-suited to my thesis because criticism of these four rational reconstructions leads relatively smoothly to the theoretical perspective that has been most persuasive to myself and that is thus best able to encapsulate the preconceptions I bring to the analysis:

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[8] The purported success of science is a matter of contestation (Niiniluoto 2019), which I will not discuss in depth here. Suffice it to say that many of the most famous and influential philosophers of science of the 20th century did consider modern science an exceptionally successful enterprise (Laudan 1983).

[9] By "rational reconstruction", Lakatos (1970, p. 105) is referring to a deliberately reductionist and distorting narrative, constructed and used by philosophers to highlight those features in the history of science which make science a rational endeavor and which, thus, account for its success. Lakatos acknowledges that actual history is more messy than any one rational reconstruction, but argues that the ideal-typical narrative is nevertheless useful if it manages to highlight distinctive and distinguishing features of scientific disciplines.

- Bayesian updating: At its core, this is not a theory about how science progresses or of how scientists in particular behave. Rather, it is a model of rational thought, and especially of the way in which rational actors change their beliefs and convictions in the face of new evidence (or new arguments). In brief, the model suggests that "rational" scholars gradually and continually adapt their beliefs in accordance with the evidence they receive; pieces evidence that conflict with accepted theories should thus lead to a re-consideration of the theoretical preconceptions (though not necessarily to a rejection of these preconceptions).

These are the five theories that I posit as frameworks to understand how scholars in my selected case have responded to the (challenging) evidence from China's recent economic development. I will give a more detailed account of the content of these theories in section 3, where I will also lay out how each of them can be applied to my case and which expectations regarding scholarly behavior can be derived from them. This exercise serves as the basis for constructing my initial coding scheme (see Table 1 in the Appendix) to guide the journal analysis.

3. Theoretical framework

In this chapter, I discuss a number of theoretical approaches to the study of science and knowledge production. As explained in the previous chapter, the goal of this section is to provide a foundation for my empirical analysis, i.e., to give a transparent accounting of which theoretical notions and expectations influence and guide me in the collection, categorization, and interpretation of relevant documents. For this purpose, I will outline the main characteristics and points of criticism for each theoretical approach as well as the implications each of them has for the question of how the Public Choice research program has responded to challenging evidence from China.

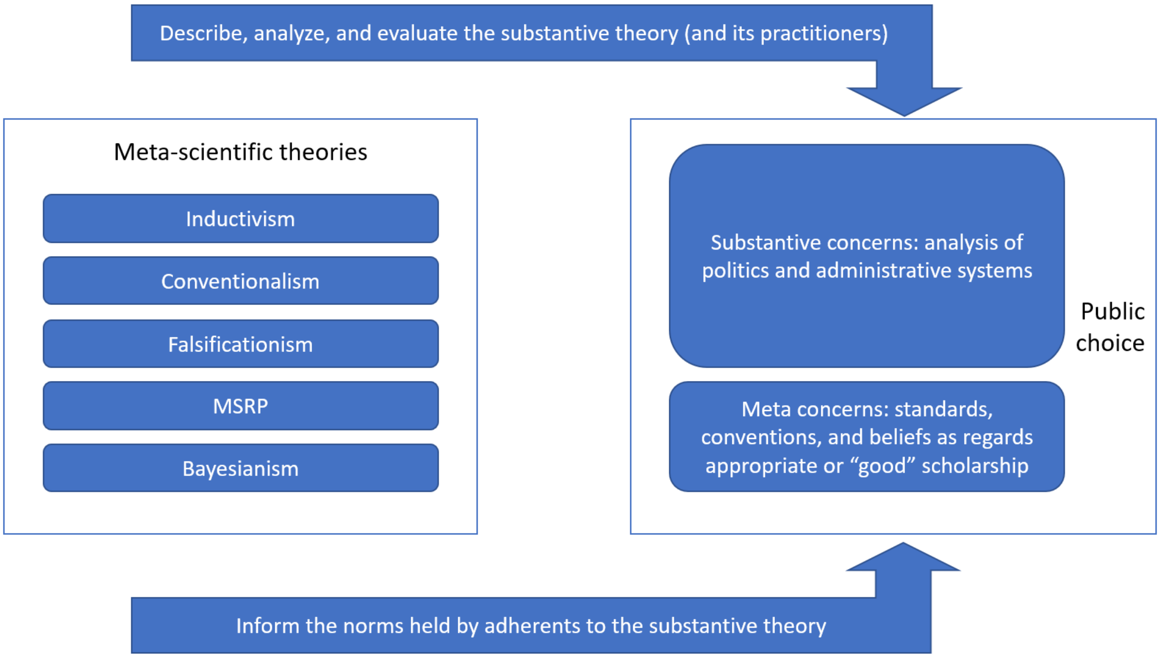

Figure 2: Connections between the theories that guide the empirical study of this thesis (meta-scientific theories), and the theory that is the subject of the empirical study (Public Choice): The meta-scientific theories aim to describe, analyze, and evaluate substantive academic theories, of which Public Choice is one. In addition, meta-scientific theories can and often are used to inform the methodological and epistemological assumptions that underpin any given substantive theory.

Before I start, a few preliminary remarks are in order. First, on the connection between the "research-guiding" theories outlined in this chapter and the theory of Public Choice (see Figure 2 for an illustration of that connection): The former are meta-scientific theories, which were developed to better understand how academic work is, and ought to be, conducted; they are, in other words, concerned with a broad phenomenon, of which Public Choice scholarship is one example. Public Choice and its adherents are mainly focused on studying politics and administrative systems (see chapter 4.1 for more details); but, like most academic theories, the Public Choice research program does make some assumptions (though often implicitly) about meta-scientific questions, and individual proponents of the program have also taken an explicit stance on these issues in the past. My study of Public Choice scholarship leads me to conclude that the research program does not adhere to any one meta-scientific theory consistently in the way it describes itself and in the way it evaluates research output (i.e., it does not seem possible to say that Public Choice scholars are all inductivists, conventionalists, falsificationists, Lakatosians, or Bayesians)[10]. The lack of coherent self-description makes it difficult to study and evaluate Public Choice on its own terms, which is one of the reasons why I resort to the literature in the philosophy of science to identify a theoretical framework to guide my empirical analysis.

Second, on the nature of this categorization of theoretical approaches: At least three of the approaches listed here[11] lack one or a small set of core proponents/originators; instead, they are broad schools of thought that unite a diversity of thinkers under one label, who share some core assumptions/viewpoints but also differ on many specific claims and conclusions. The depiction I give of these approaches is selective, relying strongly on Lakatos' characterization for the first four and on my own literature synthesis for the last one, and not every individual philosopher that adheres to either of the approaches will feel fully represented by my outline. In addition, the approaches are not entirely exclusive of each other; there are assumptions as well as conclusions that are shared by multiple approaches. This is somewhat inevitable whenever categorization of complex individuals is attempted; the hope is that the categories are a useful guide for understanding different possible perspectives in the philosophy of science, in spite of the fact that they are neither fully exhaustive (not every individual viewpoint is represented faithfully in either of the approaches) nor exclusive (some individual viewpoints will resonate with more than one approach).

3.1 Inductivism

Characteristics: Inductivism describes "an approach which aims to start from the facts to infer increasingly general laws and theories," (Pietsch 2021, Abstract) and it is the traditional take on what constitutes "the scientific method." It is usually traced to Francis Bacon and the epistemological tradition of empiricism that has been especially prevalent in the English-speaking world of the Enlightenment era. In Lakatos' words, inductivist philosophers describe science as the accumulation of factually correct statements, where "only those propositions can be accepted into the body of science which either describe hard facts or are infallible inductive generalisations from them" (Lakatos 1970, p. 92).

Implications: If inductivism is taken as a model to describe scholarship, one would expect scientists to integrate newly emerging evidence into their body of accepted facts, and possibly to derive generalizations from these facts (depending on the nature of the evidence and the criteria the scientists use for deciding when a generalization is warranted and valid). A theory for an inductivist is simply a generalization from factual statements; if evidence emerged that clashed with an existing theory, the inductivist would, presumably, see that new evidence as proof against the validity of the generalization underlying the theory and would thus abandon the theory. Hence, an inductivist reconstruction of the history of Public Choice scholarship would suggest[12]:

[10] I refrain from giving a lengthy discussion of the different views on "good scholarship" that exist among Public Choice scholars, because I did not have sufficient time to conduct a broad survey of such views and because I believe that such a discussion is not necessary for the purposes of this thesis.

[11] The possible exceptions are: Methodological falsificationism, which was prominently advanced by Karl Popper and later adherents to this school of thought are virtually unanimous in acknowledging him as their intellectual starting point; and the Methodology of Research Programmes, invented and championed by Imre Lakatos.

[12] Here and in the rest of this chapter, I use the letter *E* as a shorthand for *expectation*. It is on purpose that I do not call these statements "hypotheses," as they are less precise and predictive than hypotheses have come to be understood and defined in contemporary academia.

> $E_{inductivist}$: *Scholars integrate evidence from China's economic development into their model of the world in the form of a factual statement. Generalizations and theoretical propositions that disagree with this factual statement (e.g.: "State interference in the economy leads to economic stagnation.") are abandoned. New generalizations based on China's recent economic development may be proposed.*

Criticism: Inductivism has been the target of fierce and persistent criticism over the centuries. Historians and sociologists of science have demonstrated through case studies of different scientific disciplines and historical periods that the inductivist account does not capture how scholars actually generate academic knowledge (e.g., Duhem 1991; Feyerabend 2018). In addition to this charge of empirical inaccuracy, philosophers have criticized inductivism for being logically invalid and practically impossible. One of the first and still most prominent discussions of the logical problem was given by David Hume (see Henderson 2020), who argued that there is no non-circular way to justify reliance on past experience for generating expectations of (probable or certain) future events[13]. The practical problem is based on the claim by Karl Popper and many others (see O'Hear 1980, Chapter V) that observations are theory-laden and that data thus cannot be recorded in a pre-theoretical manner: "Observation is always selective. It needs a chosen object, a definite task, an interest, a point of view, a problem. … We may add that objects can be classified, and can become similar or dissimilar, *only* in this way – by being related to needs and interests" (Popper 1969, p. 47). The theory-ladenness of data, according to critics, renders it impossible for scientists to start with a collection of (pre-theoretic) facts/observations and move to the generation of theories only in a later step.

In conjunction, these lines of criticism led philosophers of science in the middle of the 20th century to search for alternatives to the inductivist program, and the approaches introduced in 3.2-3.5 below are a result of that search.

3.2 Conventionalism

Characteristics: The conventionalist account of science (for this section, compare Lakatos 1970 pp. 94-96) rejects the (inductivist) notion that observation and empirical study are possible without recurrence to any theoretical preconceptions or frameworks: Theories are necessary to determine what constitutes an observation, how observations are described and characterized, which observations are relevant, and how individual observations can be aggregated to produce insights into real world phenomena (see O'Hear 1980, Chapter V).

Conventionalists have different ideas of how theories emerge and grow dominant, but they agree that accepted theories survive in large part *by convention* (hence, the name). That is, theories are passed from one generation of scientists to another, and scholars rarely question or seek to revise received theories in their everyday practice:

> "*Conventionalism allows for the building of any system of pigeon holes which organises facts into some coherent whole. The conventionalist decides to keep the centre of such a pigeonhole system intact as long as possible: when difficulties arise through an invasion of anomalies, he only changes and complicates the peripheral arrangements*" (Lakatos 1970 p. 94).

[13] A very short summary of the argument may run as follows: Why should prior experiences (such as the observation that the sun rises in the east) tell us anything about how things will work henceforth? The answer we are tempted to give is that we have learned from past experience that events repeat and that we can thus rely on predictions we make based on observations of regularities. But that answer already assumes what we set out to establish, i.e., it assumes that we can learn from past experiences. For this reason, the intuitively appealing justification is circular.

Implications: The conventionalist account would suggest that Public Choice scholars will go to rather great lengths to retain their theoretical framework, because adaptations to the core of a scientific paradigm are considered rare in this account. One way to preserve a theory is to add some new assumptions without abandoning any of the core postulates; in the case of Public Choice, I hold that the core postulates consist in the rationalist modeling of (human) agents (as is claimed, among others, by Mueller 2003, pp. 1-2). An additional way of preserving a theory is to pay selective attention to favorable pieces of evidence, and/or to interpret incoming evidence so that it fits in the theoretical framework.

However, conventionalists do not describe scholars as complete dogmatists that are strictly bound to their theoretical traditions. A change of theoretical commitments is conceivable in the conventionalist account if "better alternatives" (as judged by explanatory power and simplicity) are available. Such a change is considered more likely if the old theory faces an increasing volume of challenging evidence.

> $E_{\text{conventionalist}}$: *If possible, scholars tweak some peripheral parts of the Public Choice research program, and/or re-interpret the evidence from China to fit the research program. If that fails, scholars might move away from the Public Choice research program and towards a different theoretical system that proves better able to account for the evidence from China.*

Criticism: The conventionalist account has been criticized mostly by philosophers who are dissatisfied with the arbitrariness it seems to introduce into scientific practice. Conventionalism appears to suggest that there is no sense in which scientific theories are more reliable and better supported than any other kind of knowledge, and it thus gives little in terms of advice to practicing scientists nor does it justify why outsiders should look to academia as a legitimate source of understanding, superior in its empirical accuracy to alternative institutions (such as religious or spiritual authorities, astrologists, propaganda ministries, or corporate lobbying groups).

3.3 Methodological Falsificationism

Characteristics: Methodological falsificationism is the philosophy of science advanced by Karl Popper (1959; 1969; see also O'Hear 1980) as an explicit alternative to the inductivism of the empirical positivists from the early 20th century (Vienna Circle). It is based on the conviction that deduction is the only logically valid form of inference, and it seeks to remodel scientific inquiry in a deductive fashion (hence, an alternative label often used to describe this approach is "hypothetico-deductivism"). For Popper (and adherents to his, or a similar, philosophy of science), observations are not capable of ever verifying a universal law or theory (you can never know whether the law is truly universal or only valid for the set of observations you actually observed; see logical problem of induction described above), but they can falsify such a law (a single observation is sufficient for disproving a universal claim). Science, then, is supposed to postulate hypotheses and theories, and subject them to attempts at falsification by comparing the theories' expectations to real-world observations. Theories are never accepted as proven or verified, but they are provisionally accepted as long as they survive attempts at falsification. Theories that give no concrete predictions about real-world events – *unfalsifiable* theories – are rejected as unscientific from the start.

Implications: The implications of a falsificationist philosophy of science in this case would seem rather straightforward[14]:

[14] I admit that this is a rather crude reading of methodological falsificationism, a reading mostly driven by my methodological needs rather than by an attempt strictly to represent the ideas of Popper and his

$E_{falsificationist}$: *Scholars abandon Public Choice as a research program because it would have predicted economic stagnation in a country with as much state involvement as exists in China.*

Criticism: Methodological falsificationism as a theory of science has been criticized on empirical grounds in a similar fashion as the inductivism it sought to displace: Historians of science presented narratives of different episodes to demonstrate that actual scientists rarely if ever proceed in the manner suggested by falsificationism (e.g., compare Feyerabend 2018, Chapters 11 and 12; Lakatos 1970, esp. pp. 111-114). Based on this accusation of empirical inaccuracy, many critics went one step further to allege that it is not just that practicing scientists fail to adhere to falsificationist procedures but that they, in fact, could not do so even if they were committed to the enterprise. One of the most prominent formulations of that criticism is the so-called Duhem-Quine thesis which holds that "because hypotheses have empirical implications or consequences only when *conjoined* with other hypotheses and/or background beliefs about the world, a failed prediction or falsified empirical consequence typically leaves open to us the possibility of blaming and abandoning one of these background beliefs and/or 'auxiliary' hypotheses rather than the hypothesis we set out to test in the first place" (Stanford 2021). This impossibility of disproving theories through isolated crucial experiments has incited much discussion in the philosophy of science, and Lakatos has been one of the most prominent participants in that debate. His Methodology of Scientific Research Programmes, to which I now turn, is directly motivated by the weaknesses and limitations of Popper's account of falsificationist science.

3.4 Methodology of Scientific Research Programmes (MSRP)

Characteristics: Lakatos' Methodology of Scientific Research Programmes was developed in response to criticism against Popper's falsificationist philosophy (Lakatos 1970). Lakatos acknowledges that isolated observations/experiments have never and should not lead scientists to fully abandon any given theory. He thus recommends a focus not on such singular pieces of empirical data but rather on the accumulation of evidence and on the development of theoretical schools – "research programmes,"[15] in his parlance – across time. Scientific progress, in Lakatos' account, is achieved as progressive research programs gradually overtake degenerative ones within any academic discipline. A progressive research program is defined as one which continually predicts new phenomena with at least some measure of success (it is not required that all predictions get realized); a degenerative one fails to do that, and instead spends most of its time and energy explaining given observations/experiments *retrospectively* (by adjusting the theory in the periphery, and/or by reinterpreting the evidence).

Implications: A Lakatosian observer, similar to the conventionalist, does not expect that individual Public Choice scholars abandon their theoretical commitments in response to the Chinese experience, because s/he doesn't think that these scholars are naïve falisificationists. Instead, scholars are expected to find retrospective explanations for the challenging evidence, or else ignore it entirely. What the Lakatosian pays particular attention to is whether new predictions emerge from Public Choice over time, because that is what

followers faithfully. It could easily be argued that Public Choice never made sufficiently precise predictions to be properly falsified, which would make the entire research programme "unscientific" in a Popperian sense; seen from that angle, methodological falsificationism would not be interested in studying Public Choice scholars in the first place, because they would fall outside of methodological falsificationism's area of interest (which is science as a falsificationist endeavor).

[15] Lakatos' publications are written in British English; however, I have opted for American English in this thesis, which is why I will usually use the American spelling of "program," unless I am citing Lakatos, or the name of his theory, directly.

determines whether Public Choice is a progressive or degenerative research program. If no or very few such predictions are made, a Lakatosian account would suggest that Public Choice is going to lose adherents and grow less prominent in the wider academic field.

> $E_{Lakatos}$: *Scholars give retrospective explanations for inconsistencies between China's recent history and Public Choice theory (by selectively choosing and re-interpreting the evidence, by making small theoretical adaptations while retaining their theory's core assumptions), and/or make predictions about future economic developments in the PRC. If the former (retrospective explanation) happens much more frequently than the latter (prospective theorizing), then Public Choice loses prominence and adherents in the broader academic field (and vice versa).*

Criticism: One criticism against Lakatos' account is that it depicts scientists/scholars as dogmatic adherents to a given research program, rather than as open-minded truth-seekers. This leads directly to the fifth and last approach I introduce in this chapter: Bayesian epistemology.

3.5 Bayesian epistemology

Preliminary remarks: "Bayesian epistemology" is a label that does not, for all I know, have one authoritative definition, founding theorist, or constitutive text. Instead, it is a term that is used by a number of different people, not always in the same way or with the same intention. It is also the approach that I feel closest affinity to as regards my own philosophical views, which will undoubtedly shape my description.

Characteristics: "Bayesian thinking" describes a certain manner of forming and adapting one's beliefs and convictions. The basic principle – in my understanding, at least (as an external reference for this section, compare Carroll 2016; Kakkar 2020; Oaksford and Chater 2009) – is that beliefs are held conditionally and with different levels of credence/confidence, which change gradually in accordance with new evidence and new information. Bayesians thus don't speak of true and false claims, or of absolute and certain knowledge, but rather of degrees of belief. Belief updating refers to a change in degree, a change in the level of confidence attached to one or several beliefs, and consistent and "rational" belief-updating is considered virtuous in Bayesian epistemology. There is a formal definition of this kind of belief-updating, which takes a prior probability of a certain belief and the likelihood of new evidence as input and gives a posterior probability of that belief in light of the new evidence as an output:

$$P(H|E) = \frac{P(E|H) * P(H)}{P(E)}$$

$$P_{posterior}(H) = Likelihood(E|H) * P_{prior}(H)$$

where H is any given hypothesis, E is a piece of new evidence, P(H|E) is the probability of the hypothesis given the new evidence, and P(E|H) is the probability of the evidence assuming the hypothesis were true.

However, Bayesians are quick to clarify that they do not expect or ask people in the actual world to run computations based on that formula in their heads all the time (e.g., see Olsson and Enqvist 2010, pp. 48-50). This would be impractical because most people don't particularly enjoy doing that kind of algebra, but – more importantly – it is also an impossible task for the vast majority of real-world situations, since we rarely have access to precise probability and likelihood estimates, so putting numbers on the values in the formula would involve an immense amount of arbitrary guesswork. Instead, Bayesians insist on the underlying principle as a heuristic for changing one's mind: The epistemic virtue lies in the general attitude of acknowledging one's beliefs as provisional and probabilistic (as opposed to absolutely certain), and in the readiness to consider new evidence/information as an impetus for reconsidering and, whenever appropriate, updating one's confidence in different beliefs.

Implications: If Bayesian epistemology is used as a theory of how scientists actually think and form beliefs, one would expect that they respond to challenging evidence by adapting their theories and convictions, depending on how strong their prior beliefs in the theories were and how much of a challenge they see in the incoming evidence (i.e., how unlikely was that evidence in light of their theories as opposed to alternative theories?). For the case of Public Choice scholars, this would imply

> $E_{Bayesian}$: *Public Choice scholars use the evidence from China's recent past to update their beliefs away from the idea that socialist economic systems are doomed to stagnation.*

Criticism: Bayesian epistemology faces a number of technical and logical problems that are well summarized in the Stanford Encyclopedia of Philosophy (Talbott 2016), which also list possible solutions to these problems as proposed by Bayesian theorists. For the purposes of this study, a more in-depth discussion of these challenges does not seem warranted or necessary, so I will leave the reader with the remark that the problems exist and can be found in the reference named above.

4. Empirical analysis

In this section, I will conduct and present an empirical investigation of how social scientists have responded to the challenge China's recent history poses to mainstream theories of development. More specifically, I look at Public Choice scholarship, which has, since its inception in the post-World War II decades, prominently recommended policies of privatization (among others) and warned against many forms of state ownership and other state interference in economic affairs.

I will start by giving a brief outline of Public Choice as a research program – its origins, evolution across time, core assumptions and conclusions, main proponents, and reception in academia and beyond. Next, I describe how China's development success can be (and has been) viewed as a challenge to Public Choice theory. The main part of the analysis then deals with scholarly responses to that challenge. I look at Public Choice itself, examining how the theory's negative assessment of a socialist organization of the economy (large state sector, public ownership of means of production) is reconciled with China's sustained growth rates. Additionally, I pick out a few prominent Public Choice academics to study how they individually write about China's recent economic history and thus how they react to challenging evidence in their everyday practice; and I examine the broader academic field to see whether the prominence of Public Choice has shifted vis-à-vis other theories and research programs (which may be more accommodating to socialist efficiency). This chapter is then followed by a summary and discussion of my main findings and its limitations, and by a conclusion with recommendations for further study.

4.1 The Public Choice research program

Core assumptions: Public Choice is often defined as "the application of economics to political science" (Mueller 2003), where "economics" refers to a combination of assumptions about human nature (narrowly self-interested) and a methodological approach of formal modeling. In other words, Public Choice theorists make a couple of starting assumptions about what humans want[16] and then extrapolate from that to explain (and sometimes predict) individual, group, and societal behavior and decision-making in the political realm.

Origins and evolution across time: Proponents of Public Choice place themselves in the tradition of Anglo-American and European political philosophy (counting Adam Smith, Thomas Hobbes, and James Madison among their forebears; for instance, see Mueller 2003). Though discussions about such early lineages are at least controversial (for instance, compare Eiffe 2010 and their contention that Adam Smith's thoughts on human nature were much more nuanced and complex than the reductionism underlying homo oeconomicus), there is consensus on who the main protagonists of the theory's developments in the second half of the 20th century are: The quest of applying mainstream economics' modeling apparatus to political behavior was kicked off by Duncan Black (1948), Kenneth Arrow (1951), and Anthony Downs (1957). It was consolidated and packaged as the Public Choice research program by James Buchanan and Gordon Tullock (most famously in their 1962 attempt to depict republican constitutions as an outcome of the individual rational

[16] While a key characteristic of Public Choice modeling is the self-interest assumption, theories can differ somewhat in how self-interest is conceptualized. It is often defined quite materialistically as monetary wealth, material prosperity, or physical safety and health. Some scholars also refer to prestige and social status, negative personal freedom, or leisure time as goods that individuals aspire to out of self-interest. More normative and ethical aspirations, such as a desire for justice, compassion towards others, or an enlightened conception of self-interest that views common prosperity as beneficial to each individual, are usually excluded from the set of motivations assumed to drive humans in Public Choice models (Stretton and Orchard 1994, p. 3; C. K. Rowley 2008, pp. 8 and 21).

calculations by the republic's future members), and further developed by a number of contributions in the years to follow. These contributions appeared in monographs and edited book volumes as well as in *Public Choice*, a journal founded in 1966 and dedicated specifically to the research program, and in other economics and politics journals (see Rowley 2008, p. 3). Public Choice scholars have their strongest presence in the United States, where the research program originated and still has its "intellectual home" (namely, The Center for the Study of Public Choice at The James M. Buchanan Center for Political Economy at George Mason University, Virgina; Rowley 2008, p. 3).

Main conclusions: Scholars working under the Public Choice label have directed their attention to a great number of phenomena, many of which are about actors and institutions in liberal democratic contexts (e.g., what drives voting decisions) and are thus of little concern to me in this thesis. My focus here is on Public Choice's analysis of the state's role in economic affairs (as an owner, planner, regulator, mediator, etc.), and it can be summarized fairly simply: In overall judgments, Public Choice theory is skeptical about government regulation and taxation, tends to restrict the state's desired role to "enforcing the rules of the game" in a very narrow sense, and lists private – rather than public – property as one of the core ingredients to allow countries to grow and prosper economically (Mueller 2003, 535–60; Brennan and Buchanan 1980).

In a scathing critique, Stretton and Orchard (1994, p. 80) summarize Public Choice and common-sense notions of state company inefficiencies in the following way: "It is widely believed that public enterprises tend to neglect their customers' wants; to allocate productive resources inefficiently and use them inefficiently; and to resist reform or closure when those are needed. Together the four beliefs compose what may be called a theory of public incompetence." The causes for such incompetence, in the Public Choice theorist's model of the world, are that state planners lack perfect knowledge (and are thus *incapable* of producing what consumers actually desire) and that they pursue their narrow self-interest rather than the public good (and are thus *unwilling* to produce what consumers actually desire; see Mueller 2003, p. 4).

Especially in light of the post-socialist transitions in Russia and Eastern Europe, this "theory of public incompetence" led many Public Choice theorists to recommend rapid privatization policies. To cite only one example for the conviction driving these recommendations: "Economic theory and experience point to the establishment of effective and secure property rights as critical to the success of economic liberalization" (Riker and Weimer 1993, p. 101). It is my contention (and one of the foundational assumptions of this thesis) that these convictions and (vague) predictions about the detrimental effects of a socialist organization of the economy are challenged by China's historical experience of the last 40+ years.

4.2 The China challenge

The assertion that China's recent history poses a challenge to Public Choice's conviction that state ownership must lead to inefficiency and economic stagnation rests on two empirical claims. First is the claim that China's political economy continues to be marked by a significant level of state ownership and state intervention, and second is the claim that China's economy has not, in fact, stagnated in recent decades. The second of these claims is well-established, can be substantiated with reference to statistical documentation of a variety of indicators and by a variety of organizations (for an overview, compare Heep, Huotari, and Szepan 2016), and is not subject to serious doubt among commentators and analysts (for all I know).

The first claim is a little more controversial. The question of how to characterize China's economic system as it evolved since the reform-and-opening-up period is hotly debated outside and to some extent also within the PRC (for commentary on that debate, compare Fewsmith 2011). Analysts are in disagreement about the strength and capacity of the state in the PRC and about how that evolved throughout the reform period (Edin 2003). Further, there is a wide-ranging debate on whether China is better described as neo-statist or neo-liberal (McNally 2020), a developmental state in the spirit of other East Asian countries in the 20th century (Horesh and Lim 2017), a model of authoritarian or party-state capitalism (Pearson, Rithmire, and Tsai 2020), a socialist market economy with Chinese characteristics (Boer 2021), or a Beijing consensus development model that is *sui generis* and cannot be described appropriately with labels drawn from other contexts (Ramo 2004; compare also Li and Cheong 2019, pp. 32-34, for a discussion of how China's history and cultural heritage place it in a unique position).

But while there is much to discuss and disagree on when it comes to specifying China's political economy and the factors that allowed for its remarkable growth, it seems hard to dispute a number of basic facts and broad trendlines. Even those arguing that China is on the road to capitalism (Kotz 2000), or is already "more capitalist than socialist" (Coase and Wang 2012), will – I assume – accept the formal reality that "the central government [of the PRC] is a full or majority owner of over 51000 enterprises, together valued at USD 29.2 trillion and employing approximately 20.2 million people" (OECD 2017), which is far above the global norm (for comparison, India has 270 SOEs, Japan has 8, and the United States has 16; all numbers are taken from OECD 2017). Additional state interventionist features of the Chinese economy that should negatively impact its performance according to the Public Choice paradigm are well summarized by Szepan (2016, p. 211):

Table 4.5.B

State mechanisms for influencing and intervening in business

	Form of company ownership	
Influence and intervention mechanisms	*State ownership (types 1 + 2)*	*Private ownership (types 3 + 4)*
The state as the owner (profit transfers)	✓	
The cadre system (managers)	✓	
Financing (lending by banks)	✓	✓
Industrial policy (funding programs)	✓	✓
Regulation (approvals, etc.)	✓	✓
The state as the key customer (public procurements)	✓	✓

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Figure 3: Table taken from Szepan (2016, p. 211) to summarize the "State mechanisms for influencing and intervening in business" that exist in the PRC.

4.3 Response to the "China challenge" by the discipline of Public Choice

As outlined in the methodology section, I conducted a qualitative document analysis of the journal *Public Choice* in order to uncover how the research program as a whole has responded to China's surprising economic success story. Here, I will first provide some descriptive details on my data collection procedure and the "database" that resulted thereof, before jumping into an analysis of the texts' significance in relation to my research question.

4.3.1 Data collection and initial screening

Initial screening: A search in the online archive of the journal *Public Choice* for articles containing the word "China" yields 344 hits for the period of 1966-2021. Based on a cursory reading of the abstracts and the paragraphs in which "China" is mentioned, I classified each article according to its relevance to my study:

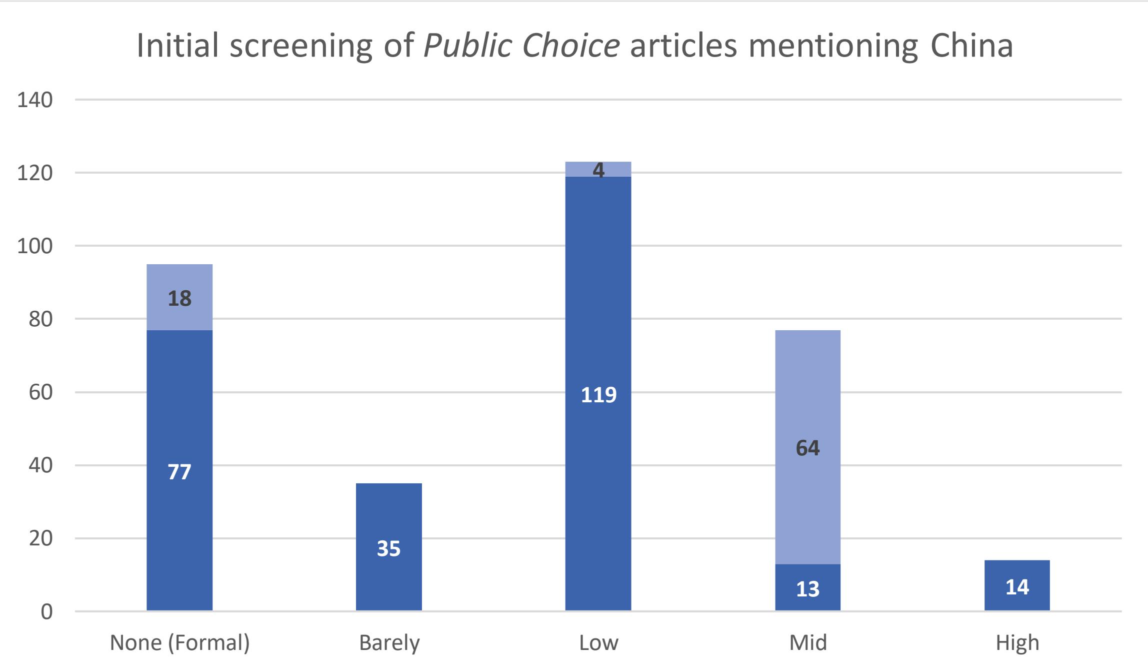
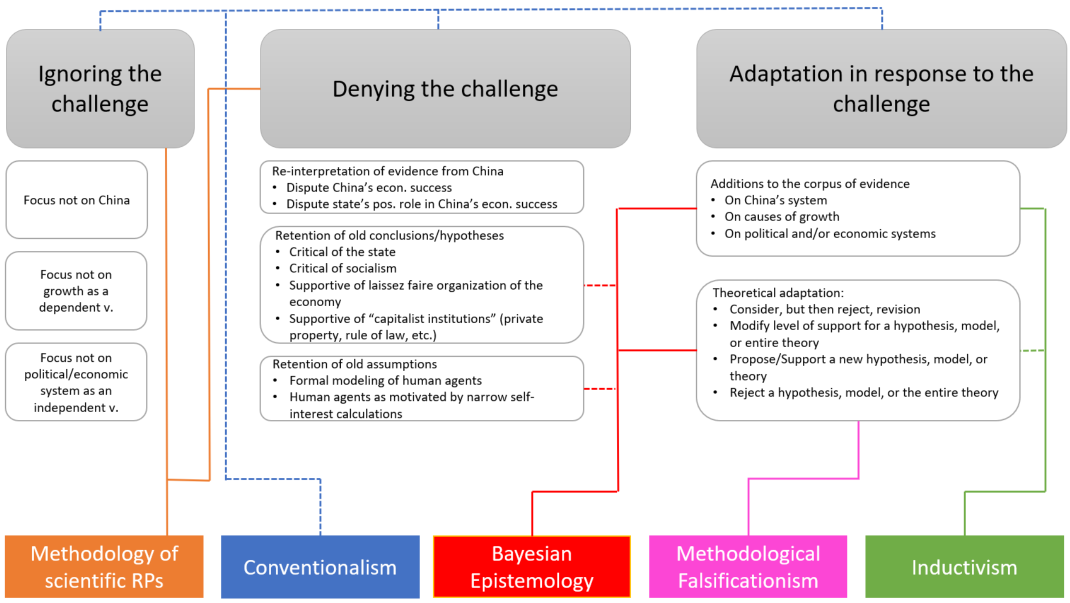


Figure 4: Classification of 344 articles in Public Choice*, which mention China at least once, classified according to how relevant the text is to the topic of China's recent development success.*

I classified 95 articles as having *no relevance*, either because China is mentioned only as a "third actor" (e.g., as the target of U.S. trade sanctions, see Tosini and Tower 1987), because China isn't mentioned in the body of the text (instead being mentioned in the sections giving meta info about the author and/or supporting institutions; this happened in 18 of the articles and is marked in a lighter shade in the first bar in Figure 3), or because the text is not a research article (but rather a bibliographic list or something of the kind; e.g., Editors 1995). Articles with *barely* any relevance (35 in total) are those where China is mentioned intentionally and in its own right, but only in a stray reference and without any further discussion (e.g., China as part of a certain voting coalition in the UN, see Holcombe and Sobel 1996). I decided to give them a separate classification (instead of lumping them in with the "no relevance" category) because these articles show that China is not completely off the radar of their authors. Their relevance for my study doesn't go further than this, however, so I will not consider them further in the in-depth analysis.

The remaining articles describe studies where China is (one of) the subject(s) of investigation, either as one data point in a cross-country analysis, as a case study, or as an illustrative example. I classified these articles as having *high relevance* if the study deals specifically with the question of how state actions and the political/economic systems affect economic growth in China. They are of *mid relevance* if they deal with parts of that question (e.g., a study on the effects of state regulations on growth in India), and of *low relevance* if they are about something else entirely[17] (e.g., a study on push- and pull-factors of migration in Asia). Among those articles that are of mid or low relevance, there are some which address aforementioned question (about state impacts on economic growth in China) in a tangential way (in one paragraph, or even just in a stray sentence); these passages are included in the analysis and the number of articles that contain them is shaded in a lighter color in Figure 4.

Code construction: In order to address my research question, I then conducted a qualitative content analysis and classified each China-focused article (i.e., each article classified of at least low relevance) according to the kind of response it constitutes to “the China challenge.” I constructed a coding scheme with three very broad “main codes” and a number of more specific sub codes (see Figure 5, and list of codes and their frequency of occurrence in Table 3 in the Appendix). This was done in an iterative process that combines concept- and data-driven strategies, as outlined and recommended in Schreier (2012): I started by deriving a list of potential codes from the meta-scientific theories that inform my approach (see Chapter 3, and Table 1 in the Appendix), used these in a first round of coding and added sub-codes as seemed appropriate given the content of the texts, then reviewed the output of that first round of coding, reconsidered and re-modeled the codebook based on my understanding of the meta-scientific theories and based on my reading of the empirical data, re-applied the new coding scheme, and reiterated these steps until I felt satisfied with how the codes categorize the information in the texts.



[17] This “low relevance” category includes several articles that may be considered borderline cases. These are articles that study some facet of the political system but their focus is on a topic that seemed clearly unrelated to the question I’m concerned with in this thesis. As mentioned above, I assigned the relevance categorization in an initial coding round towards the beginning of conducting my thesis investigation, and I did not apply strict and precise coding rules when doing so. This means that there may be minor inconsistencies in how low and mid relevance codes were assigned (e.g., one article on the factors that exacerbate or ameliorate corruption may have been coded mid-relevance while another paper on a similar topic may have been coded low-relevance, simply because I think that it is equally legitimate to view the topic in question as tangentially related to my RQ as it is to view it as basically unrelated). No doubt, the quality of my dataset would have benefited from a second coder (to perform inter-coder reliability checks) and/or from a second coding round performed a few weeks after the initial one (intra-coder reliability check). I did not have the financial resources to choose the first option (hiring a second coder), and lacked the time to choose the second.

Figure 5: Codes used for analyzing articles in the journal *Public Choice*, and their connection to meta-scientific theories: The grey rectangles in the top of the figure represent the main codes used in the analysis, the white rectangles below represent sub-codes used to specify the type of response observed in an article (e.g., the sub-codes on the very left of the figure provide more detailed information on how any given article may be ignoring the challenge posed by evidence from China). The colored rectangles in the bottom of the figure denominate the five theoretical approaches I outlined in chapter 3; each theoretical approach yields certain expectations about how scholars are likely to respond to challenging evidence, and they are linked to the codes in accordance with those expectations (e.g., Lakatos' Methodology of scientific research programmes would suggest that scholars either ignore challenging evidence or deny that there is a challenge).

The idea behind the main codes is fairly intuitive (I hope): An article can ignore the challenge, i.e., refuse to address evidence from China's recent economic history as an explanatory puzzle. An article can deny the challenge, i.e., claim that there is no reason to revisit the research program's claim that state interference in the economy is detrimental to growth, nor the assumptions that underpin the claim. And an article can represent an adaptation of the research program in response to the challenge.

The classification gets a bit more confusing once the main codes are sub-divided and given more concrete content. A close look at the sub-codes reveals that the three categories, while representing distinct response options, are not entirely exclusive of each other. For instance, it is perfectly possible for an article to be ignoring the challenge of China's economic success because it focuses on the effects of the economic system on growth in India (e.g., see Majumdar 1998), and at the same time to be denying the challenge because the authors conclude from their study of India that state ownership of companies reduces growth rates (thus reinforcing a belief that is challenged by China's recent economic history); as a matter of fact, this study would also constitute an adaptation, because the findings add to the research program's corpus of evidence as far as causes of economic growth are concerned. This intermingledness complicates the application as well as interpretation of the coding scheme, both of which would be easier if the codes were exclusive of each other. However, I have found it impossible to fit the data I study into a simpler categorization which would still capture the core of what these articles are doing. I welcome critique and further work that seeks to improve upon my methodology in this respect.

4.3.2 Empirical analysis

Distribution of main codes: Among the 214 articles that were judged to have some relevance, 123 articles focus neither on China (they do mention the country but don't give it any in-depth treatment), nor on economic growth and how features of the political/economic system impact growth; these are the articles that were classified as low relevance in the initial screening procedure, and they received the code "Ignoring the challenge" in the in-depth analysis. A further 77 articles ignore the challenge partially, by focusing on one or two of the subjects just listed, but not on a combination of all three; because of this partial neglect, I coded these articles as "Ignoring the challenge" *and* "Denying the challenge" and/or "Adaptation of the research program". This leaves 14 articles which address the challenging evidence from China's recent economic history head-on: they analyze the role of China's political/economic system in fostering or hindering economic growth. These 14 articles are the only ones that were not coded as "Ignoring the challenge" at all; instead, they were classified as either "Denying the challenge" or "Adaptation of the research program", or both. Figure 6 is meant to illustrate the distribution of different combinations of main codes assigned to the articles (for example, there are 200 articles with the code "Ignoring the challenge", of which 123 have no second main code, 40 are also coded as "Adaptation of the RP", 14 are also coded as "Denying the challenge", and 23 are coded as doing all three things at the same time).

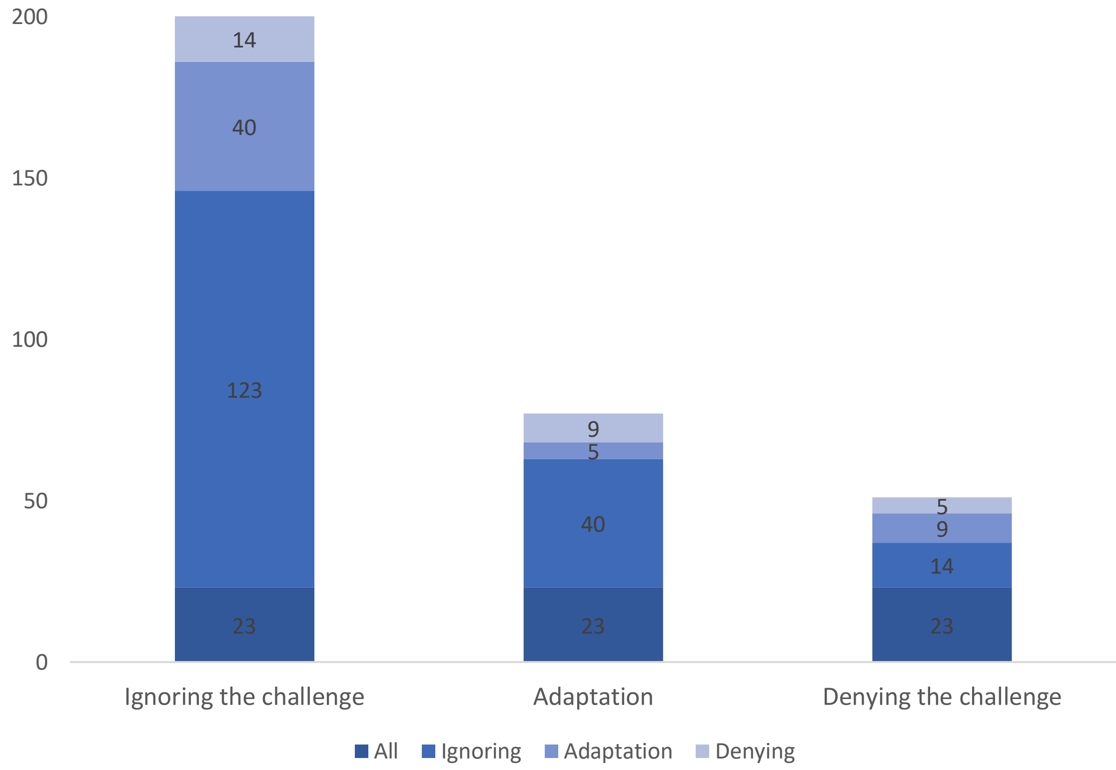


Figure 6: Distribution of main codes across all 214 articles from the journal *Public Choice*, which mention China and have some relevance to the research question. The three bars show the number of articles with the respective main codes assigned overall; the coloring is meant to illustrate co-occurrence of main codes (i.e., the sections in the bar are meant to illustrate how often a main code was assigned alone and in combination with one or both of the other main codes).

Ignoring the challenge: A first thing to note when documenting how evidence from China's recent economic history is ignored, is that the overall number of *Public Choice* articles with some reference to China is relatively low[18]: of the 5,135 papers that have been published by the journal from 1966 to 2021, a mere 344 contain any mention of China and only 214 treat China as a research subject (either as a data point in a cross-country analysis, as the focus of a case study, or as an illustrative example). Of these, a large subset completely ignores the challenge that evidence from China may pose to the Public Choice research program, which is to say that these articles do not focus on China, economic growth, or on relevant characteristics of political/economic systems (over half of all *Public Choice* articles with some reference to China fall into this category). The remaining articles largely ignore the challenge at least partly (77 articles do so overall), by not focusing on China (66), not studying determinants of economic growth/prosperity (33), and/or not focusing on features of the political/economic system (6). As mentioned repeatedly already, after all these filters are applied, only 14 articles remain that cannot be accused of ignoring the challenge that China's developmental success poses to the Public Choice research program.

Addressing the challenge head-on: I now turn to these 14 *Public Choice* articles which deal specifically with China's recent history of economic growth and the role of the state in that achievement. They were published in the period from 1993 to 2021, with a majority (9) issued since 2010 (a full documentation of publication dates is given in Table 2 in the

[18] These evaluative judgments regarding the number of articles are based on no objective standard but on my intuitive assessment; i.e., 214 articles engaging with China as an object of research *seems* low *to me*. If readers view this differently, or if they think this section can and should be rephrased without the use of evaluative terms, I am happy to receive feedback along those lines.

Appendix), and are predominantly research articles (10), though some are also shorter pieces such as book reviews (4).

All of these articles were coded as adding something to the research program, which is not to say that they advocate for major revisions, let alone a wholesale rejection, of the theory of Public Choice. None of the articles concludes that Public Choice ought to be abandoned completely, and a majority of them (9) retain at least one core Public Choice hypothesis and/or dispute that recent economic developments in the PRC constitute a challenge to the theoretical school they belong to. On the other hand, just over half of all articles (8) do end up rejecting one of Public Choice's hypotheses, or proposing a new model/claim to add to the program[19]. The remaining articles either consider an adaptation but then decide against it (4), or simply document some relevant evidence (on reforms in China, etc.) without addressing how that fits into and ought to modify the theoretical content of the research program (2).

After that rather abstract characterization of the articles and their responses to the "China challenge," I will now dive into a more qualitative content analysis. One of the main ways in which Public Choice scholars treat the evidence from China is to interpret it in a way that fits their theoretical framework, i.e., to construct a narrative of economic developments in China that does not depict the state/government as a positive (f)actor. A few authors do this by highlighting negative aspects of China's recent past or current situation: For instance, Maurel and Pernet (2021) conduct a study that finds that Chinese cities with a large share of state-owned enterprises are less responsive to environmental regulations and have a worse track record at reducing SO_2 emissions than other localities in China. Other papers do acknowledge remarkable economic achievements in China, but dispute the positive role of the state and/or of the socialist system in engendering that success. An example for this would be Gohmann (2013), whose book review highlights the ingenuity of China's private entrepreneurs and concludes that "governmental institutions follow rather than lead economic growth" (p. 755; compare also R. Grier 1999 who shifts the focus away from state policy and towards the importance of the market mechanism).

Another strategy for integrating the evidence of China's economic achievements is to loosen the determinism in Public Choice's claims about the state and its role in the economy. An approach that several of the authors writing for *Public Choice* employ is to broaden the set of goals that they ascribe to public officials. While they do not discard the methodological practice of modeling politicians as self-interested individuals who seek to maximize their own welfare, they add assumptions about how leaders of a country conceive of that self-interest. More specifically, these authors argue that politicians have an interest in prioritizing growth in the gross domestic product (GDP) over their own immediate enrichment, because improvements in the welfare of the general population make it easier for leading politicians to stay in office (even in political systems where leaders are not chosen via elections) and because economic growth gives politicians greater opportunities for syphoning off national wealth in the future.

The most elaborate exposition of that argument is found in Olson (2000), who hasn't written about China himself but is cited by several of the Public Choice scholars that do analyze the country. For instance, Zhang (2012) develops a model of successful transition economies based on the recent history of the PRC, in which "the central leaders possess a sufficiently encompassing interest in the wealth of the country as a whole […] since [their] regime will last long enough to claim through taxation the longer-term surpluses derived from pro-growth

[19] There are a few articles that both retain some Public Choice hypotheses and reject others, which is why the numbers of the two categories (given in parentheses in the text above) add up to more than 14.

investment policies" (ibid, pp. 275-276; other examples are Wintrobe 2012; and Tang and Hedley 1998). Through such an argument, *Public Choice scholars are able to reject the hypothesis that a large state role in the economy is always and necessarily detrimental to national development, without having to abandon the research program and its central assumption that politicians are motivated by self-interest rather than by public virtuousness*.

Partially ignoring the challenge: Having analyzed and categorized "the extremes" on the spectrum of possible responses to conflicting evidence (ignoring the evidence, and addressing the challenge head-on), I now turn to the 77 articles that constitute a response only in an indirect way (those, in other words, that address only parts of the question of how remarkable economic growth was possible in the PRC with its large and regulatorily powerful state). A concise numerical overview of the codes and subcodes assigned to the articles in this category can be found in the Appendix (see Table 3). Here, I describe the data in a more qualitative manner and use numbers only to give a rough sense for the prevalence of each type of article.

Across all these 77 articles, I coded 63 as adapting the research program, 37 as denying that there is a challenge, and 23 as doing both at the same time. Those that deny the challenge do so mainly (33) by expressing an attitude that is critical of a large state or of socialism as a system for organizing the economy, and/or by continuing to advocate for laissez-faire economic policies as well as for the introduction/enforcement of institutions such as "stable private property rights" and rule of law (compare, for instance, Olson, Sarna, and Swamy 2000 who operationalize "good governance" through indicators that measure the risk of expropriations and the quality of the rule of law in a country (among other metrics)). The remaining four of these articles deny that evidence from China specifically constitutes a challenge, either by disputing/de-emphasizing the positive role of the Chinese state in fostering economic growth (3) or by questioning that China's recent economic history is a success story in the first place (1).

These "strategies of denial" are employed less extensively in a number of articles in addition to the 33 just mentioned: 29 of those that don't deny that there is a challenge through their main argument do so at least *in a side mention*. These include articles that contain *off-hand comments* that are critical of the PRC and especially the role of the state in that country. Probably the most extreme version of this that I encountered in my analysis is a book review by Tullock (1996), which contains the following "argument":

> "*The failure of China, India, etc., to have the same rate of growth [as Northwest Europe and the U.S. since around 1750] is very obvious. If we began importing 5-10 million poor Asians a year, and after a short time they began voting, it is likely that they would vote for the kind of government that they favored in their native countries. […] If our system were changed, the end product after 100 years or so might be that the world was much poorer than it would be if the present highly unequal situation were permitted to continue. To repeat, this might be. We don't know for certain*." (ibid, p. 430)

Less overtly supremacist remarks that also serve the purpose of re-interpreting the situation in China such as to dissolve the question of how a country with a large state was able to attain remarkable economic success can be found in several articles (e.g., Guo et al. 2021)[20]. Similarly, some authors sprinkle their articles with phrases that emphasize/allege "the importance of protecting property rights" and the "substantial welfare cost [that results from] the financing of government redistribution" (Holcombe 2006, p. 509), which are basically

[20] However, it is worth noting that some articles (8) also do the opposite, i.e., praise China or at least acknowledge China's success in a stray remark.

instantiations of traditional Public Choice hypotheses on the economically detrimental role of a large state. There are also some articles that reiterate these hypotheses – and thus deny that their research program faces a challenge – not as findings or explicit claims but which rely on them as *grounding assumptions*: for instance, this is the case in Wu & Lin (2012), who study “determinants of government size” in China and highlight factors and conditions which might help to “curtail government expansion” (ibid, Abstract). A last, and relatively rare, strategy is for authors to reject China’s economic success as an impetus to reconsider their theoretical commitments by arguing that the PRC is no more than one outlier, and thus the proverbial exception that proves the rule (see, for instance Singh 1992, a cross-country study of how “price distortions” influence economic growth).

Next, I turn to the 63 articles that I coded as “adaptation to the research program”. I have found myself incapable of giving a concise and exhaustive summary overview of the whole set of articles and the different ways in which they adapted their approach in response to evidence from China, so I decided to divide them based on which parts of “the China challenge” they address (and which they ignore). A first, and possibly least relevant, sub-category is constituted by articles that study political and/or economic systems but focus neither on China nor on a system’s influence on economic growth/prosperity (23). These papers tend to ask what determines state behavior and government policies (compare, for instance, Damania, Fredriksson, and Mani 2004 on factors that influence the prevalence of corruption in a country), and they mostly (15) adapt the periphery of the research program by adding some new claim (piece of evidence or hypothesis) or testing old propositions about how different political/economic systems function, without addressing the question of how those systems impact growth. One response pattern identified in the previous subsection that reappears in some of the articles considered here is that authors allow for an expanded set of conceivable motives when analyzing the behavior of states, politicians, and bureaucrats. In that way, these articles “prepare the ground” for the argument that Public Choice and its core assumptions are perfectly compatible with some instances of government success at promoting economic growth (they don’t explicitly make that argument themselves though).

Another ten articles do the same as the ones just mentioned – i.e., studying system dynamics without looking at economic growth as an outcome variable – but with a specific focus on the PRC. These papers discuss how to characterize China’s political economic system (e.g., Mihályi and Szelényi 2021 on China as “an illiberal capitalist system or a communist dictatorship”), and/or investigate policymaking processes in China’s past and present (e.g., Chen 1996 on how privatization decisions are made by Chinese state officials)[21]. Many of these articles (6) are critical of the state’s role (in China), expressed either in their main findings, assumptions, or in some stray comments, but some (2) also weaken Public Choice’s deterministic claims about the narrow-minded and destructive self-servingness of public officials and about the necessarily debilitating role of the state as an intervenor in economic affairs. The latter can, again, be likened to those high-relevance articles described above which adapt Public Choice’s operationalization of a politician’s self-interest to accommodate the evidence of China’s economic success.

There is also a number of articles that seek to identify causes of economic growth and prosperity with no special focus on the Chinese case (the PRC is often included as one data point in a cross-country analysis or referred to only in a side comment in these papers). Most of these look at the influence of the political and/or economic system on development (38), while a small number focuses on non-state variables such as culture and religion (five do so

[21] A further 13 articles provide some information on/interpretation of the system in PRC in a side remark (that is to say, their main focus lies elsewhere, so the code “topic: China’s system” was assigned as a Side rather than Main Code).

in total; an example would be Koyama 2017, a book review on how religion might have caused divergences in economic prosperity between Europe and the Middle East).

Of the papers that study how the political and/or economic system influences growth, a majority but not all articles (28 out of 38) stick to the skeptical Public Choice attitude vis-à-vis the state's role in the economy. However, they also offer some suggestions for how to adapt their chosen research program (in a more or less radical way): 9 papers (of those that study economic growth without a special focus on China) conclude that one or several of Public Choice's core hypotheses should be rejected in its strongest form, and 14 propose some new model or at least a new hypothesis to explain differences in development outcomes across space and time. Together, these articles go some way in broadening Public Choice's understanding of the causes of growth, and in weakening the research program's traditional, more simplistic stance which holds that a smaller state and less intervention are always to be preferred. In addition to the strategy of expanding the set of conceivable motives for politicians (which I wrote about already), the authors of these texts introduce a diverse set of *variables which mitigate a government's negative role* – thus allowing for growth in spite of a large state –; and they propose *special conditions under which states may actually be expected to play a positive role* for national development. An example of the former adaptation is Williamson and Mathers (2011), whose study indicates that "when private property rights and contracts are not formally enforced, individuals rely on informal norms, such as trust and respect, to substitute for this function" (ibid, p. 326), which provides an explanation for why countries can achieve high economic growth rates even if they lack the state-constraining institutions that Public Choice in general would consider necessary. Prototypical representatives for the latter adaptation are Acemoglu and Robinson, who published an article in *Public Choice* (2019) in which they combine their work with Gordon Tullock's concept of rent-seeking to construct a model that explains which institutional features (namely, political and economic inclusiveness) make the difference between growth-promoting and growth-stifling state systems.

4.3.3 Findings

Through a close reading of the China-related articles published in the journal *Public Choice* in the preceding decades, I identified and characterized a number of different strategies that scholars have adopted in their response to the surprising and somewhat challenging evidence posed by China's recent economic history (see a detailed analysis in the previous subsection, and an overview in Figure 7). In this section, I summarize those strategies, thus providing an answer to my second sub-question: *How has the Public Choice analysis of China evolved throughout the last half century? Have practitioners of the research program discussed China's economic success and the role of the state therein? Did they acknowledge misperceptions in and inadequacies of the program's theories or predictions?*

Response strategy	Example
Ignoring the challenging evidence	An analysis of how child-raising costs affect fertility rates in a country (B. Xu and Pak 2021)
Implicit denial (no reconsideration of the RP)	A cross-country study that finds a correlation between a small state and high satisfaction in the population (Bjørnskov, Dreher, and Fischer 2007)
Explicit denial (re-interpretation of evidence)	A favorable review of a book that explains economic success in the PRC by emphasizing the importance of entrepreneurial ingenuity (Gohmann 2013)
Adaptation: modify assumptions	A new model of Communist Party politics that finds self-interest-based incentives for party members to pursue economic growth (Wintrobe 2012)

Adaptation: add variables	A theoretical article that proposes the strength of distributional coalitions (interest groups) as a mediator which determines whether state interventions in the economy have negative or positive effects (Tang and Hedley 1998)
Adaptation: modify degree of confidence in the RP (or in some of its claims)	/
Abandoning the RP	/

Figure 7: Typology of the responses individual scholars take when confronting with evidence that challenges their chosen research program. RP is short for research program. The types of response as listed in the left-hand column were defined in the course of analyzing the empirical material; the right-hand column gives concrete examples of each type of response, taken from the corpus of *Public Choice* articles that were analyzed for this study.

The numerically dominant strategy in the journal *Public Choice* is clearly that of ignoring evidence from China's recent history: as mentioned repeatedly already, my investigation "only"[22] found 14 articles that discuss the drivers of economic growth in China, which means that the vast majority of authors who publish in this journal choose to focus on other topics and pieces of evidence, even if China is among their objects of research.

A related response by many of the scholars that do pay some attention to the topic of China's economic growth is implicit denial, i.e., a refusal to revisit the core tenets of the research program in the face of apparently challenging evidence. This may, but doesn't have to be, connected to an explicit denial of the claim that China's recent economic history is hard to reconcile with the assumptions and claims of Public Choice. Scholars that combine both forms of denial argue either that China hasn't actually experienced that much of a success story in developmental terms in recent decades or, more commonly, that the Chinese state did not play a positive role in engendering that success.

Some contributions to *Public Choice* also adapted the research program to some extent as a direct or indirect response to the evidence from China's economic success. They did so in two ways: by modifying their notion of what lies within the self-interest of politicians and bureaucrats so as to allow for the possibility that public officials pursue national economic growth and prosperity; or by adding some variables to the theory's postulated relationship between the nature of the state/political system and economic development, so as to accommodate the fact that some countries with a large state and fairly unrestrained government still obtain high growth rates.

4.4 Response to the "China challenge" by individual Public Choice scholars

To complement the journal analysis from the previous section, I now take a closer look at three prominent Public Choice scholars and their response to challenging evidence from China's recent past.

4.4.1 Gordon Tullock (and James M. Buchanan): ignoring and evading the challenge

Gordon Tullock and James M. Buchanan are widely acknowledged as the founders of the school of Public Choice (e.g., C. K. Rowley 2008), especially through their work on democratic constitutions, *The Calculus of Consent* (1962), which is one of the earliest publications to apply the methodology of mainstream (micro-)economics (formal modeling of

[22] Readers may dispute that 14 is a (surprisingly) low number of articles for the topic at hand. I think that there is a legitimate debate to be had on this point, and will return to it in the discussion chapter of the thesis.

individuals as self-interested actors) to the study of political matters. While neither of them has published extensively on China and its political economy, Tullock's life and work does connect to the PRC in a number of ways: he lived in mainland China as well as Hong Kong for some years as a U.S. diplomat, spent a substantial part of his time and mental energy on the analysis of large bureaucracies and on politics in non-electoral systems, and mentioned China in a number of his publications. For this reason, I focus on Tullock rather than Buchanan in this section.

Tullock's most relevant contributions to the study of the state and political/economic system's influence on (economic) prosperity in China are listen in Table 4.1[23].

Source	Relevance	Response type
Tullock and Carr, *Fifteen Years of Communist China* (1965)	Focused on China, but in the early years of the PRC	Prior to economic success -> no response possible
Tullock, *The politics of bureaucracy* (1965)	Analysis of bureaucratic systems and their effects on national wealth and prosperity	Prior to economic success -> no response possible Adaptation: Modify assumptions
Tullock and Grier, "An empirical analysis of cross-national economic growth, 1951–1980" (1989)	Cross-country study on the causes of economic growth	Implicit denial: retain negative view of large state role
Tullock, "Reviews" (1994)	Favorable review of a book that describes China as a "genocidal state"	Explicit denial: emphasize negative effects of state actions in China Ignoring the challenge
Tullock, Brady and Seldon, *Government Failure* (2002)	Discussion of the effects of state actions on economic growth No mention of China	Ignoring the challenge Implicit denial: retain negative view of large state role
Tullock, "My path to *The Calculus of Consent*" (2012a)	Side mention of China and the political-economic system there	Explicit denial: emphasize reduction of state role in the Chinese economy Ignoring the challenge

Table 4.1 (extract): Resources considered in the analysis of individual Public Choice scholars, their relevance to the research question, and the response type they fall into. This is an extract which only shows the rows of those publications by Gordon Tullock which are relevant for the research question; the full table can be found in the Appendix.

Tullock's other works have no or only implicit bearing on the topics relevant to this thesis (because they focus on liberal democracies, and/or because they disregard economic growth/prosperity as a dependent variable).

The overall takeaway from my investigation is that Tullock mostly ignores the challenge that China's economic success poses to the theory of Public Choice: he doesn't study the

[23] For lack of time and access to relevant resources, I was unable to conduct a fully comprehensive investigation of all works published by the individuals selected for this section. Thus, I did not document each and every stray mention of China in these publications, and focus on how their work relates to the country and the challenge its recent history poses to Public Choice in a more broad/overarching manner (i.e., I looked through the titles and synopses of their publications and decided based on that information whether any given work seemed like it could reveal anything about the individual's response to "the China challenge").

question of how that success was possible, nor does he ever discuss how the achievements of a state-dominated economy can be reconciled with Public Choice's skepticism about large government.

Having said that, there are some passages in Tullock's work that can be interpreted as addressing the challenge in at least a partial manner. These passages resemble a response pattern that I already described in my analysis of authors writing for the journal *Public Choice*, and which I labeled as "Adaptation: Modify assumptions": in short, the response consists in broadening one's conception of self-interest so as to allow for politicians to pursue popular welfare and national prosperity, which in turn explains why the existence of a large and regulatorily powerful state doesn't always and necessarily preclude economic success. In Tullock's monograph on autocracies (Tullock 2012b), he gives a number of potential motives of political leaders: a desire to stay in power and varying beliefs about what is needed to stay in power; a desire to maximize their own and their families' wealth; a desire for status and prestige; altruism; ideological beliefs about the ideal world/country/society; an interest in the status and wealth of their countries, also for the long-run future (see esp. Chapter VI on "The uses of dictatorship", pp. 115-129, but also p. 151). It follows from these possible motives that increasing national wealth and prosperity can be among a politician's goals.

However, in spite of, and somewhat in contradiction to, these apparent concessions, the book maintains a highly critical attitude towards the state and towards state leaders, arguing that they are often unwilling and usually unable to implement the kinds of policies that would be good for the country as a whole: "A dictator, then, will spend much of his time worrying about being replaced and much of his choice of policy will turn on just exactly that fear of being replaced. Almost any policy proposal is apt to be judged by him firstly in its likely effect on his personal security and only secondly in terms of it's ultimate success. Further, by training and experience he is very good at judging the effects of policy on his security and normally has very little ability to judge the policies in terms of their probable social outcomes" (ibid, pp. 122-123).

Tullock thus leaves open the possibility that some public officials benefit the public good some of the time – which would enable him to accommodate evidence from China if he decided to acknowledge it (which he hasn't done, for all I can tell from my investigation) –, but he de-emphasizes that possibility in his general conclusions (and policy recommendations). I would thus characterize Tullock's response as an *evasive* one[24].

4.4.2 Ronald Wintrobe and William Niskanen: denial and peripheral adaptation, without fundamental reconsideration of the research program

Ronald Wintrobe and William Niskanen are two scholars that have made major contributions to specific subfields within the theory of Public Choice (autocratic government in the case of Wintrobe, bureaucratic organizations in the case of Niskanen). Neither of them has focused on China specifically, but both address issues within the research program where the evidence from China's recent history of economic growth can arguably be considered a challenge to Public Choice, and both mention China at least a couple of times in their publications. For these reasons, I decided to lump them together in this section of the analysis.

[24] It may be worth noting that this strategy of leaving basically all options open was not devised in a post-hoc manner in response to an inability of the theory to deal with some piece of incoming evidence. Instead, the strategy can be detected in Tullock's earliest publications, which already refuse to settle on a restrictive definition of what constitutes a politician's self-interest in each and every case (compare, for instance, Tullock 1965, pp. 29-30).

In some respects, these two scholars show a similar response to the one that was found to dominate contributions to the journal *Public Choice* and which also characterizes the behavior of the research program's originators (Tullock and Buchanan): neglect of the topic of economic growth in China and the implications that the PRC's achievements should have for their theoretical convictions. Both Wintrobe and Niskanen have published numerous works throughout their careers, and most of these do not contain any mention of China's recent economic history[25]. According to my investigation, neither has discussed extensively how the evidence of developmental success in a state-dominated economy fits into, or should have implications for, their theoretical beliefs and convictions. However, this neglect is not as far-reaching for these two scholars as it is in the case of Gordon Tullock (and, arguably, in the journal *Public Choice*). The ways in which they do refer to and account for China's recent economic history are summarized in Tables X.2 and X.3, and analyzed below.

Source	Relevance	Response type
Wintrobe, "Privatization, The Market For Corporate Control, And Capital Flight From Russia" (1998b)	No mention of China Discussion of "communism", market transitions, and property rights	Implicit denial: retain negative view of socialism, and claims about the invaluable role of private property rights
Wintrobe, *The Political Economy of Dictatorship* (1998a)	Several mentions of China Discussion of "communism" and its effects on economic development Question of how countries like China achieved high growth is raised, but not discussed in-depth	Adaptation: modify assumptions Implicit denial: retain negative view of socialism Explicit denial: emphasize reduction of state role in the Chinese economy
Wintrobe, "How to Understand, and Deal With Dictatorship: An Economist's View" (2001a)	Discussion of "communism" and its effects on economic development Acknowledgement of China's economic success but no further discussion	Adaptation: modify assumptions (partial) Implicit denial: retain negative view of socialism
Wintrobe, "Mancur Olson, Power and Prosperity: Outgrowing Communist and Capitalist Dictators" (2001b)	No mention of China Discussion of the causes of economic growth and the role of the state and of politicians	Adaptation: modify assumptions

Table 4.2 (extract): Resources considered in the analysis of individual Public Choice scholars, their relevance to the research question, and the response type they fall into. This is an extract which only shows the rows of those publications by Ronald Wintrobe which are relevant for the research question; the full table can be found in the Appendix.

Wintrobe's work seems to mostly fall into the response type of "Adaptation: Modify assumptions": In his *Political Economy of Dictatorship* (1998a), Wintrobe expands his notion of self-interest in a way that allows him to accept that political leaders sometimes pursue economic growth for their countries (because such growth increases their population's loyalty to the regime, which in turn enhances the leaders' power; ibid, p. 15). At the same time, he continues to uphold the conviction that a socialist organization of the economy "appear[s] to

[25] This claim is based on my reading of a select number of their publications and on having skimmed the titles of their other works as listed in their academic profiles on the webpage www.researchgate.net.

be at a disadvantage from the economic point of view" because bureaucrats tend to seek "ways to benefit themselves at the expense of the goal of the organization" (ibid, pp. 339-340)[26]. In close resemblance to Tullock's strategy of evasion, Wintrobe's theory remains sufficiently malleable to accommodate evidence from China, but the vagueness doesn't prevent him from issuing generalized conclusions and recommendations that seem at odds with the Chinese case.

Source	Relevance	Response type
Niskanen, *Bureaucracy & Representative Government*, (1971)	No mention of China Negative view of the state and bureaucracy as welfare-maximizing entities	Prior to economic success -> no response possible
Niskanen, "Economic Deregulation in the United States: Lessons for America, Lessons for China Economic Reform in China" (1988)	Short discussion of economic reforms in China and provision of recommendations to Chinese policymakers	Implicit denial: retain advocacy for small state; retain negative view of socialism
Niskanen, "Oil Is Not Worth a War" (2008a [1991])	China mentioned in the context of geopolitics	Ignoring the challenge
Niskanen, "The Economic Basis for Military Capability" (2008b [1991])	China mentioned in the context of geopolitics	Ignoring the challenge
Niskanen, "The Intellectual Case for a Free Market Economy" (2008c [1991])	Acknowledgement of China's economic success but no in-depth discussion	Implicit denial: retain advocacy for small state; retain negative view of socialism Explicit denial: emphasize reduction of state role in the Chinese economy
Niskanen, "Bureaucrats and Politicians", (1994b)	Review and reflection by William Niskanen on his own ideas -> self-proclaimed response to epistemic challenges No mention of China	Ignoring the challenge Implicit denial: retain negative view of large state role
Niskanen, "A Reassessment", (1994a)	Review and reflection by William Niskanen on his own ideas -> self-proclaimed response to epistemic challenges No mention of China	Ignoring the challenge Implicit denial: retain negative view of large state role

Table 4.3 (extract): Resources considered in the analysis of individual Public Choice scholars, their relevance to the research question, and the response type they fall into. This is an extract which only shows the rows of those publications by William Niskanen which are relevant for the research question; the full table can be found in the Appendix.

Niskanen, on the other hand, typifies a different response pattern in the few instances that he does mention China. Instead of weakening the determinism in his claims about the behavior

[26] In this passage, Wintrobe acknowledges the possibility that bureaucrats are loyal to their superiors and/or that they are motivated by ideological arguments or by public virtues. However, he asserts that such sentiments tend to decline over time and that socialist systems thus end up with self-serving (and inefficient) bureaucrats sooner or later.

of public officials and thus about the effects of large government, Niskanen simply opts for an interpretation of China's political/economic system which allows him to integrate the PRC's economic growth neatly into Public Choice's anti-statist narrative. In an article first presented at a conference in 2002 and re-published in a 2008 collection of Niskanen's work, he argues that political conditions matter greatly for developmental success and that "economic growth has increased sharply in both China and India but *only in response to a substantial reduction in state control of the economy*" (Niskanen 2008c [1991], p. 229, emphasis added by me). Thus, instead of feeling compelled to explain how growth was possible in a country which retains a large state sector and wide-ranging government powers to regulate and interfere in the market system, Niskanen (similar to several authors who published in the journal *Public Choice* in the last few decades) highlights the fact that some elements of state control have been loosened and ignores or downplays those elements that remain.

4.4.3 Findings

Overall, my analysis of how individual Public Choice scholars treat evidence about China's recent economic history yields insights that resonate with my findings from studying the journal *Public Choice*. It is, of course, highly likely that my extensive engagement with the journal has biased the way I subsequently conducted the analysis of individual Public Choice scholars; when looking for and reading the publications of Tullock, Wintrobe and Niskanen, I undoubtedly relied on the typology that I had constructed from the journal analysis to categorize and order the incoming information, and I might have arrived at a somewhat different description of the behavior of these scholars had I not had that typology in the back of my mind already. However, I don't think that this renders the analysis conducted here entirely useless, especially in light of the fact that bias is an inevitable part of any act of human cognition. I contend that the ease with which I was able to fit my observations of the behavior of these three scholars into my typology is a valuable signal in support of the validity and utility of the typology. Additionally, I argue that my interpretation of Tullock, Wintrobe and Niskanen's writing on China does allow my readers (and myself) to form an improved picture of the empirical world. While my analysis is biased by my preconceptions, theoretical approach, and prior empirical investigation, it is not arbitrary or completely divorced from the actual data. I freely acknowledge that the picture I draw is only one among many possible representations; however, for those interested in learning about empirical reality, having that one representation is better than having none.

After that brief excursion into abstract epistemology, I now return to the description of my analytical findings. The three scholars I picked out for the analysis all seem fairly unconcerned by China's recent economic history and don't appear to view the PRC's high growth rates as a pressing challenge to their convictions. In a majority of their publications, they ignore evidence from China, and their views on the effects of interventionist state systems on national wealth and prosperity remain unaltered in spite of China's economic success. When their analysis does turn to the Chinese case, they either deny that there is a challenge by emphasizing the shrinking role of the state in China's economy, or they expand the range of motives that they permit politicians to have, which then makes it possible for them to accept and explain that governments do sometimes contribute to economic growth and development (because based on that expanded set of motives, economic growth can be seen as being in a politician's self-interest).

In short, these three scholars mostly ignore or deny the challenge posed by China's economic success, and when they don't, they evade it through vague adaptations of the theory which are forgotten once the focus is shifted away from China and towards generalized conclusions and policy recommendations.

4.5 Response to the "China challenge" by the wider academic field

As a third and last part of this investigation, I zoom out from my analysis of public choice scholars and look at how the research program is treated in academia more broadly. Several of the theoretical approaches that inform my research for this thesis claim that conflicting evidence and challenges to a research program have their largest impact not in swaying the proponents of the program but in shifting the prominence and prestige of the program in the larger academic field it is situated in. According to them, it may be that public choice scholars themselves refuse to abandon their research program and its core tenets in response to the rather surprising evidence of China's economic success, but that people outside the research program decrease their credence in and respect for its claims. My goal in this last subsection is to take a first stab at the question of whether that has happened in recent years, and to point out ways for investigating the question in more depth in a follow-up study. I start with the latter, describing how I believe an ideal (or close-to-ideal) investigation would be set up. After that, I present the investigation that I was, in fact, able to conduct as part of this thesis, highlight and give reasons for its limitations, and justify why I decided to include it as a third part of the analysis regardless. I end with a call for attempts to tackle the subject of this third part in a more sophisticated manner.

Based on my reading of existing studies (compare Frankel 1979 as one example of a study that traces the evolution of a specific research program across time) and methodological texts (Rousseau, Egghe, and Guns 2018), I have concluded that my fourth sub-question[27] could easily be the subject of a graduate thesis in its own right. A thesis-long investigation would first take a careful look at the wider academic environment that public choice is situated in; this would be the basis for identifying competing research programs and the boundaries of the scholarly community which is relevant for deciding whether any given research program is gaining or losing in prominence, respect, and credibility. Once this groundwork is laid, a detailed qualitative investigation would seek to analyze whether the wider academic field has shifted its appraisal of public choice in response to the appearance of evidence that is more in line with competing research programs. I imagine such an investigation would resemble outstanding work in the field of intellectual and/or disciplinary history (e.g., Conant 1957), but leave the methodological details to whoever takes up the task of conducting the study (the following investigation may serve as inspiration and/or as a blueprint: Frankel 1979).

This detailed analysis could be complemented by a more quantitative investigation of how the popularity of public choice relative to its "competitors" has (or has not) shifted across time. A glimpse of such a quantitative investigation is given in the graphs below. It is no more than a glimpse because it is not based on a rigorous selection of indicators for "research program prominence", nor is the causal link between shifting prominence and the observation of conflicting evidence well-established.

[27] As a reminder, SQ4 was: *How has the prominence and standing of public choice as a research program within the field of comparative economic systems shifted across time? Have other claims, ideas, theories, or predictions, more in line with the Chinese growth experience, gained in prominence?*

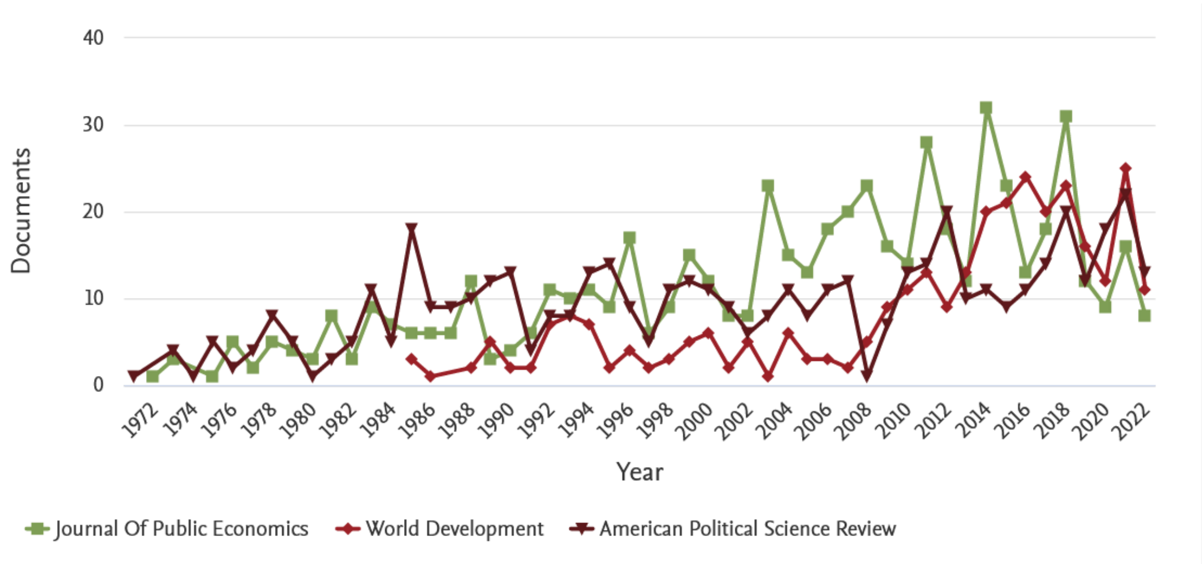


*Figure 8: Number of references to "Public Choice" in three potentially relevant, discipline-wide journals, across time. Source: www.*scopus.com (Elsevier).

Figure 8 is an attempt to map the prominence of the theory of public choice in three disciplines (public economics; development economics; and political science) across time by showing how often the theory's name was mentioned in journals that represent those disciplines. The aim of such a mapping is quite straightforward: check if these disciplines have decreased the amount of attention they pay to public choice as challenging evidence from China started to surface. However, actually attaining that aim would require a somewhat more sophisticated analysis. As mentioned, it would first necessitate added theoretical reflection to figure out which of these disciplines is/are relevant to the theory of public choice (which discipline(s) does the research program belong to?) and it would also require a better justification for the selection of journals to represent the discipline(s). In addition, there might be value in putting further thought into whether simply looking for mentions of the phrase "public choice" is a good operationalization of research program prominence; and the numbers would somehow need to be set in context, to know whether an increase or decrease on the y-axis is truly a sign of "public choice" shifting in prominence (and not just a sign of the journal publishing more/fewer or longer/shorter articles in general). Lastly, the graph in its current form does not contain any explicit link to the evidence from China, which makes the claim that shifts in the prominence of "public choice" are *due to* the appearance of challenging data extremely tenuous.

An alternative way of studying the field-wide prominence of public choice as a research program would be to rely on journal ranking indicators, as done in Figure 9. This method allows for a very simple comparison between different research programs and their influence across time, which could give relevant information to answering my fourth sub-question. Again, gaining truly valuable insights from such an approach would require more sophistication than what I provide in the graph: Deeper theoretical reflection would be needed to identify public choice's competing research programs and the journals that may be taken to represent them; a more thorough discussion of the validity of different journal ranking indicators would be in order (for general reference, compare Rousseau, Egghe, and Guns 2018); and the (causal) link between shifts in prominence and evidence emerging from China remains to be established.

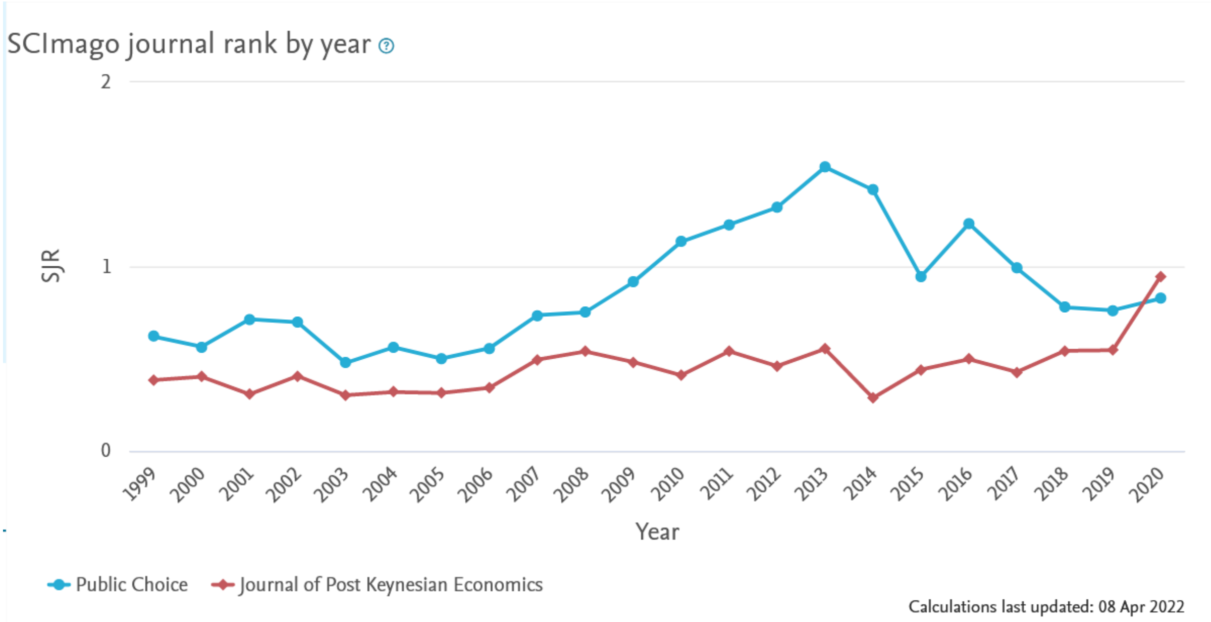


Figure 9: Ranking of Public Choice *and a journal of one of its major competing research programs (the* Journal of Post Keynesian Economics*, which takes a much more favorable stance towards state interventions in the economy), according to the SCImago Journal Ranking indicator. Source:* www.scimagojr.com.

In light of these glaring limitations, I will not claim that part three of my analysis yields strong findings about whether and how academia's appraisal of the public choice research program has changed in response to the appearance of challenging evidence from China's recent history. All that my surface-level investigation reveals is that the research program has not been relegated to the dustbins of academic history entirely: discipline-wide journals in public economics, development economics, and political science continue to make reference to the theory (such references are rare, but by no means more rare then they used to be before China's growth miracle); and public choice's flagship journal did not see marked declines in official journal rankings in response to high growth rates in the state-dominated Chinese economy (nor has a journal from a competing research program – Post-Keynesian economics – seen a marked rise). This is my no means a final verdict on my fourth sub-question, and I welcome and encourage more sophisticated follow-up studies that address the weaknesses I outlined above.

5. Discussion and Conclusion

In this last section of the thesis, I start by reminding the reader of my research objectives, recap my findings, highlight limitations and avenues for further, more sophisticated investigation, and share some reflections on my own normative assessment of Public Choice scholarship (based on the insights gained throughout the last few months of studying that school of thought).

The thesis in a nutshell: The topic and research question for this thesis are inspired by a fairly broad and fundamental question in the field of epistemology: What are "good epistemics"? In other words, what traits and practices make someone a trustworthy/effective thinker and investigator? To narrow this concern down a little bit (and thus make it more manageable), I decided to focus on one specific situation that strikes me as quite relevant for judging/recognizing someone's epistemic virtues: the times when someone is confronted with evidence (or ideas) that challenge(s) their existing beliefs. Instead of tackling that issue from an abstract philosophical perspective, I combined it with my interests in social science and in China Studies to construct an empirical investigation of how academics respond to conflicting evidence[28]. My rationale for studying people's actual behavior (the *is*) in order to get an improved understanding of a normative question (the *ought*) does not lie in a rejection of Hume's famous dictum that "you cannot derive an ought from an is" (cited and paraphrased in, for instance, Pigden 2011); rather, it lies in my belief that the empirical depiction can make normative concerns easier to grasp and think about. Since that empirical question is still extremely broad, I narrowed it done further and defined one specific piece of evidence: China's remarkable economic growth in past few decades; and singled out one school of thought which seems to be challenged by that evidence: Public Choice[29]. My research question is a result of this process of successive narrowing of focus: *How has the Public Choice research program responded to the developmental success China experienced?*

To approach the research question, I consulted the methodological literature in the fields of history, history of science, and qualitative social science, as well as existing meta-scientific debates and theories. Especially the latter – theories about how science is and ought to be conducted – serve as the basis for the design of my empirical investigation (formulation of guiding questions, selection of methods and data sources), and for the analysis and interpretation of my observations. I want to emphasize once more that I did not and do not intend to *test* these theories by confronting their predictions with the empirical data; the main *raison d'être* of my theory chapter is to explicitly inform my investigation and thus to make my theoretical preconceptions and biases transparent, not to postulate hypotheses that are tested against the evidence.

In the first section of the analysis, I make the case that Public Choice as a research program is challenged by China's recent history, providing quotes and references to demonstrate Public Choice's skepticism regarding state interventions in the economy, and listing data and secondary sources that show that the PRC has seen high economic growth in spite of the large role that the state retains in the country and its economy. The following two sections are devoted to investigating how Public Choice scholars have responded to that apparent contradiction (between their theory's claims and the reality of China's economic success). In an analysis of the journal *Public Choice* (section 4.3), I identify and describe different

[28] I am lucky in the coincidental congruence of my interests here, since economic and political conditions and developments in the People's Republic of China give ample opportunity for studying how scholars deal with unexpected and theoretically challenging evidence.

[29] A detailed explanation for why I chose Public Choice instead of a number of alternative schools of thought is given in Box 1 in the Appendix.

response patterns (see Figure X) and provide evidence for how frequently they are adopted by article contributors (see Table X). A deep-dive into the academic output of three prominent adherents to the Public Choice research program (section 4.4) yields additional evidence and illustration of how these response patterns are employed to reconcile the evidence from China with the state-skepticism inherent in the theory. My main takeaway from these investigations is that *"scholars mostly ignore or deny the challenge posed by China's economic success, and when they don't, they evade it through vague adaptations of the theory which are forgotten once the focus is shifted away from China and towards generalized conclusions and policy recommendations"* (directly quoted from section 4.4.3, p. 35 of this thesis). In a last part of the analysis (section 4.5), I sketch out an approach for studying how the broader academic field responded to Public Choice's difficulties of coming to grips with the evidence from China's recent history. Due to time and resource constraints, I do not implement my suggestions as part of this thesis, and thus have no strong findings on academic response patterns to report on here.

Limitations[30]: There are multiple choices I made while designing the empirical investigation for this thesis, and for many of these choices I believe that different decisions could have been made that would also have been valid. This starts with the research program that I selected: instead of Public Choice, I could have looked at schools of thought that link economic development to political liberalization/democratization (Nathan, Diamond, and Plattner 2013) and/or the collapse of one-party rule (X. Xu and Han 2018), or at theories that postulate that the Confucian/Asian culture inhibits economic development (for commentary on that debate, compare Whyte 2009, pp. 372-375), all of which are challenged by China's recent history. It extends to the sources and methods I employed to study Public Choice's response: I could have looked at different publications (other journals, edited books, etc.), or used methods other than qualitative document analysis (e.g., surveys or interviews with Public Choice scholars). Lastly and probably most importantly, it includes my choice of theories to guide the investigation: The range of theories on how scholars and people more generally change their beliefs and/or react to conflicting information is vast, and I ignore much of the existing literature both in the field which my chosen theories come from (Lakatos' selection of approaches is by no means exhaustive of the theories that exist within the philosophy of science) and in several other disciplines (incl. cognitive and social psychology, history, epistemology).

I have reasons for choosing as I did (outlined in chapter 2 of this paper, and in Box 1 in the Appendix), but I recognize that these reasons can only justify that my choices are one possible and valid approach[31], not that they are the only or best approach. I can easily

[30] At many universities (including the ones I'm doing my degree in), it is customary for student theses to discuss their limitations in a methodology chapter somewhere towards the beginning of the paper. Since many of the limitations I diagnose for my thesis were discovered only in the process of conducting the empirical analysis, I have consciously opted to discuss them here, after the analysis chapter. I feel like this is more intellectually sincere (it does not give the impression that awareness of the limitations was there from the start), it facilitates understanding (because I can refer to specific points in the analysis where limitations strike), and, in placing the limitations closer to my conclusions, it rightfully emphasizes that my findings and insights ought to be received with caution.

[31] I want to acknowledge here that even this reduced aspiration can be challenged in the case of my theory selection. While working on the thesis, I noticed myself that there are several reasons why the meta-scientific theories Lakatos lists are not optimally-suited for my investigation: Firstly, these theories are fairly old and I might be missing out on more recent theoretical advances by relying on them. Secondly, they were developed with a goal of inquiry that seems somewhat different from mine: the aim of the approaches, from what I understand, is to explain why "modern science" (which mostly refers to the natural sciences) has been so remarkably successful by identifying which features/practices set science apart from other human activities. I, on the other hand, do not start with the assumption that my subject of inquiry (a school of thought within the social sciences) has been "successful", and I am not primarily interested in how the scholars I study differ from non-academics.

imagine – and in fact would be excited to see – a number of research projects that share my objectives and research question but rely on diverging methodological set-ups. It is possible (though not certain; there's no way of knowing unless the alternative research projects were actually implemented) that these divergences would lead to quite different findings and main takeaways, which is why I will not claim that my thesis gives the one true and universally valid account of how scholars – or, more narrowly, Public Choice scholars – respond to conflicting evidence. I do claim that it gives an informed impression of how some scholars sometimes respond, though.

It is not just the selection of research subject, data, methods, and theories that is influenced by my role as a researcher, but also the analysis itself. I constructed my coding scheme based on my understanding of the selected meta-scientific theories (outlined in chapter 3) and based on my reading of the China-related articles in the *Public Choice* journal. I argue and have sought to demonstrate that my codes make sense and are useful for understanding the texts I analyze, but there is nothing in the data that makes this specific set of codes an inevitable or objectively correct set; others might have come up with a different coding scheme and I cannot preclude the possibility that this alternative coding scheme would have been superior (i.e.: more appropriate for understanding the data at hand).

In addition, I had quite some leeway as a researcher in how I wrote about the results of my document analysis. In all honesty, I am still unsure about the presentation of findings I provide in sections 4.3.3 and 4.4.3. While writing and re-reading these parts, I kept and keep wondering: What is an appropriate way of presenting the frequency of the codes being assigned (alone and in co-occurrence)? Which numbers matter? Which narrative do these numbers lend themselves most to? What, really, is the main takeaway from all of this? To some extent, I believe that these concerns could have been alleviated had I had more time to reflect on my write-up of the analysis and its findings. However, the narrative of the investigation's results would always have been a product of my choices for how to select and derive meaning from the data (no matter how well-reasoned the choices are); I thus conclude that there is no way of getting around the essential role of the researcher in shaping how my subject of inquiry is analyzed. The picture of reality that results from an empirical investigation such as mine seems bound to be one among several possible pictures. Some people may view that level of subjectivity as a limitation or weakness, but it is one that I accept as inevitable. Furthermore, as argued previously, I believe that this subjectivity does not weaken my findings anywhere close to the point of making them worthless. I stand by what I said earlier: "having one picture of reality is better than having none" (directly quoted from section 4.4.3, p. 35 of this thesis)[32].

Lastly, there are a few further things that I could have done to complement and thus improve the existing analysis, but did not have time for (and which I would encourage authors of investigations similar to mine to tackle): recode all *Public Choice* articles with a final codebook that has clear rules for when to apply which code; set the coded articles aside for a significant period of time (e.g., two weeks), then recode them afterwards and compare

Thirdly, the approaches Lakatos lists are meant to describe how scientific disciplines/schools develop over time and in response to a steady onslaught of observations. While they do contain some implications for how scholars (ought to) respond to isolated pieces of challenging evidence, that is not their main focus (this case is made, for instance, by Jackson 2016, p. 71, fn. 10). For these reasons, I would most probably not choose the same set of theories as a basis to inform my investigation if I were to conduct it (or a similar study) from scratch again. However, I did not arrive at that realization in time to act on it in the context of the present thesis.

[32] This is especially true given that my ultimate objective for this thesis is to inform and inspire normative debate through the provision of a concrete empirical example; the goal is not and has never been to attain *generalizable* insights into how scholars as such respond in the face of conflicting evidence.

results to assess intra-coder reliability; read or skim the full publication record of the individual scholars I analyze in section 4.4; look harder for Public Choice scholars who have written about China's economic growth repeatedly across the years, and add these scholars to the study of individuals in section 4.4; implement the sophisticated study design I sketch out in section 4.5; and devote more time and space to the normative discussion of how scholars ought to respond to challenging evidence (see next section for a short version of that discussion).

Implications: In spite of all those shortcomings, I maintain that my investigation does give some sense of how one group of scholars (those committed to Public Choice as a research program) responded to a piece of conflicting evidence (sustained economic growth in a country with a large state sector). I hope that those impressions serve as an impetus for readers to reflect on how scholars ought to respond to such evidence. I will now briefly present my own thoughts on that normative question, and apply them to an evaluation of the Public Choice research program and its apparent epistemic standards.

As mentioned before, my own views of how scholars should behave in the face of conflicting evidence are a version of Bayesian epistemology (see section 3.5). For the purposes of this discussion, the following prescription is a decent encapsulation of what I believe:

> "*In an honest accounting, the credence we assign to a theory should go down every time we make observations that are more probable in competing theories. The shift might be small, but it is there. […] That's how it's supposed to work anyway. It's up to each of us to honestly carry out the process in good faith.*" (Carroll 2016, pp. 81-82)

It seems quite clear that the Public Choice scholars I studied do not live up to that normative demand. If my claims about the contradiction between China's economic success and Public Choice theory and my epistemological convictions are taken as premises, it follows that Public Choice scholars ought to pay some attention to the challenging evidence and to adjust (lower) their credence in their theoretical convictions in response to it, which I have not observed in any of the publications that I analyzed. To drive home this point a bit more forcefully, I'll now turn to each of the response strategies I identified in my analysis (see Figure 7) and give an assessment based on my epistemological beliefs.

From a Bayesian point of view, it is lamentable that most adherents to the research program ignore the evidence of China's recent economic history (entirely, or in parts). This kind of behavior would be warranted under the belief that China's recent history was no less expected given Public Choice theory than it was given any alternative theory (i.e., under the belief that the evidence is not actually a challenge to the theory)[33]. I argue that this belief is not tenable as an unquestioned assumption, since Public Choice's state-skeptic narrative seems clearly less compatible with the economic success of a state-dominated economy than theories that are less pessimistic about the effects of public ownership and government regulations. Further, even if a researcher thought it was blatantly obvious that China's recent history is not a challenge to Public Choice's state-skepticism, I would argue that the number of prestigious commentators that claim the opposite (e.g., Horesh and Lim 2017; Lo 2010; Pearson, Rithmire, and Tsai 2020) should be reason enough to take a look at the matter and at least consider the possibility of adjusting one's own theoretical beliefs. By not addressing the evidence from China at all, many Public Choice scholars thus fail to meet the Bayesian demand of responding openly to relevant incoming evidence.

[33] It would also be warranted if Public Choice were just given a much higher prior belief than any alternative theory. However, I cannot see what would justify such a lopsided distribution of prior beliefs in favor of Public Choice.

My “verdict” for those scholars that deny *explicitly* that China’s recent history poses a challenge to Public Choice is a bit less damning. By de-emphasizing or denying the state’s positive role in China’s economic development, they read the evidence differently from me (and from a number of scholars I cite in answering my first sub-question; see section 4.2), and I contend that that is an empirical mistake on their part, possibly caused by certain cognitive fallacies (confirmation bias, motivated reasoning, selective perception and interpretation of evidence), which leads them to cling to their theoretical convictions in an almost dogmatic, and certainly un-Bayesian, kind of way. However, I acknowledge that it could be me whose reading of the evidence is misguided (it is not possible for me to show conclusively that my take is more warranted than theirs, since the question of what caused China’s economic success is underdetermined by the data) and who has fallen for cognitive fallacies. In either case, I feel obliged to note approvingly that these scholars do not simply ignore inconvenient evidence and that they don’t respond inconsistently.

Lastly, there are those scholars who change parts of the Public Choice framework to make it compatible with the economic success of a country with a large and regulatorily powerful state. These researchers have to be commended for not ignoring challenging evidence entirely, and they also appear to evade the accusation of being dogmatic and unresponsive to new information. However, my normative critique of this set of scholars is that they are inconsistent, in that they employ theoretical adjustments to rescue their theory in some instances (when accounting for economic success in China), but then forget about these adjustments in others (when issuing general conclusions and policy recommendations regarding the desired role for the state in a country’s economy). More specifically, I contend that scholars who abandon Public Choice’s narrow definition of what constitutes a politician’s self-interest should also abandon the certainty with which their research program usually predicts how politicians will behave. Once this certainty is rejected, the necessary next step seems to be to also abandon the absolute conviction with which the Public Choice research program denounces large states and powerful governments as barriers to economic growth. Giving up on Public Choice’s narrow vision of *homo oeconomicus* as a model of politicians logically strips the theory of its predictive capacity; a less reductionist model makes it impossible (or at least extremely difficult and far more complicated than the procedures Public Choice scholars usually rely on) to formulate definitive claims about how politicians will behave (on average, or in any given situation), because there are so many different conceivable motives to drive their decisions, and so many different conditions and variables to influence the strength of different motives. In other words, the scholars who did adjust their beliefs do not resemble my vision of an ideal Bayesian reasoner any more than the scholars who ignore or deny the evidence from China: They seem to engage in the kind of ad hoc reasoning that allows their theory to account for every kind of incoming evidence, but simultaneously prevents it from explaining anything.

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Appendix

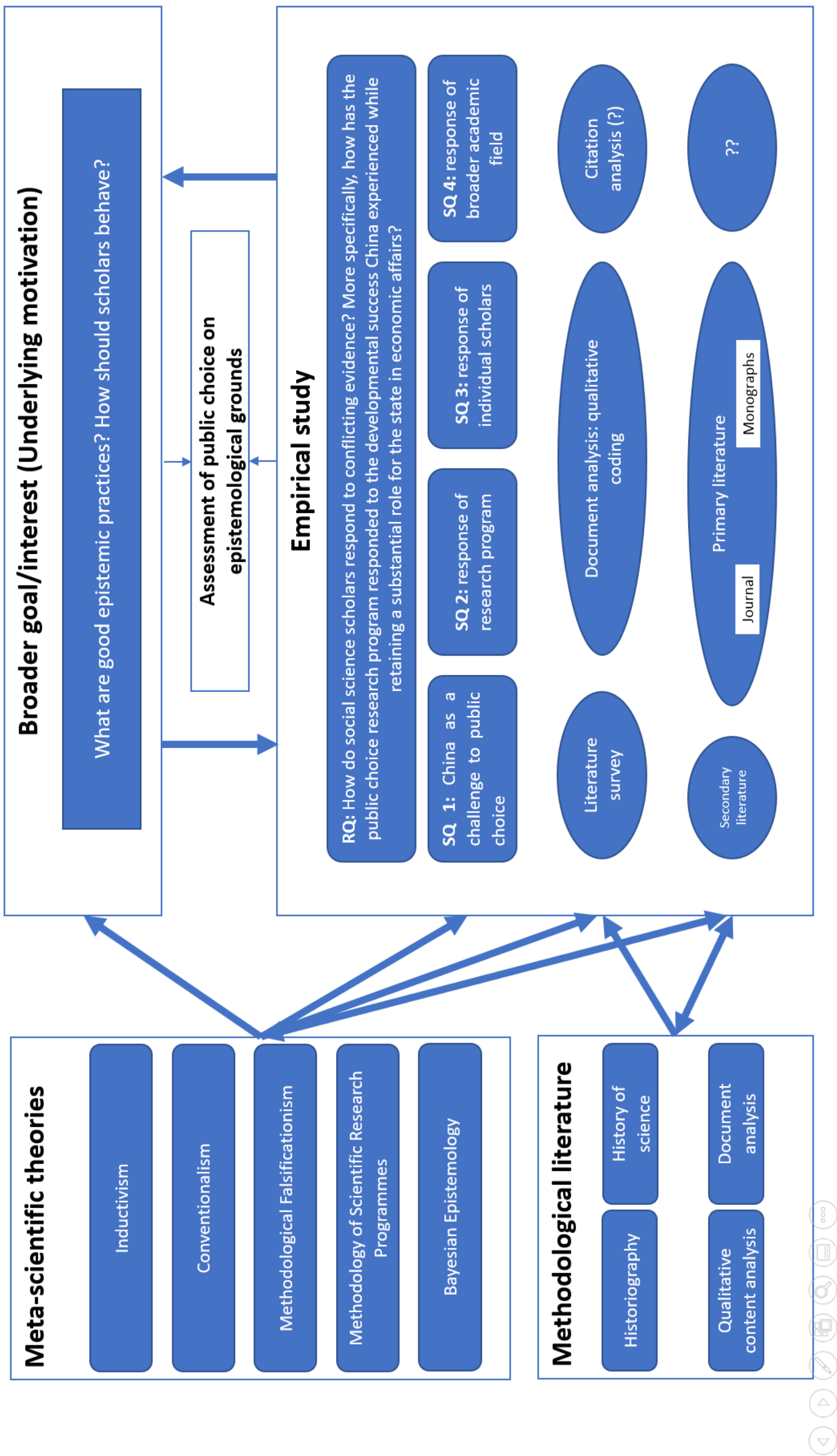

Figure 1 (expanded): Overview of research design

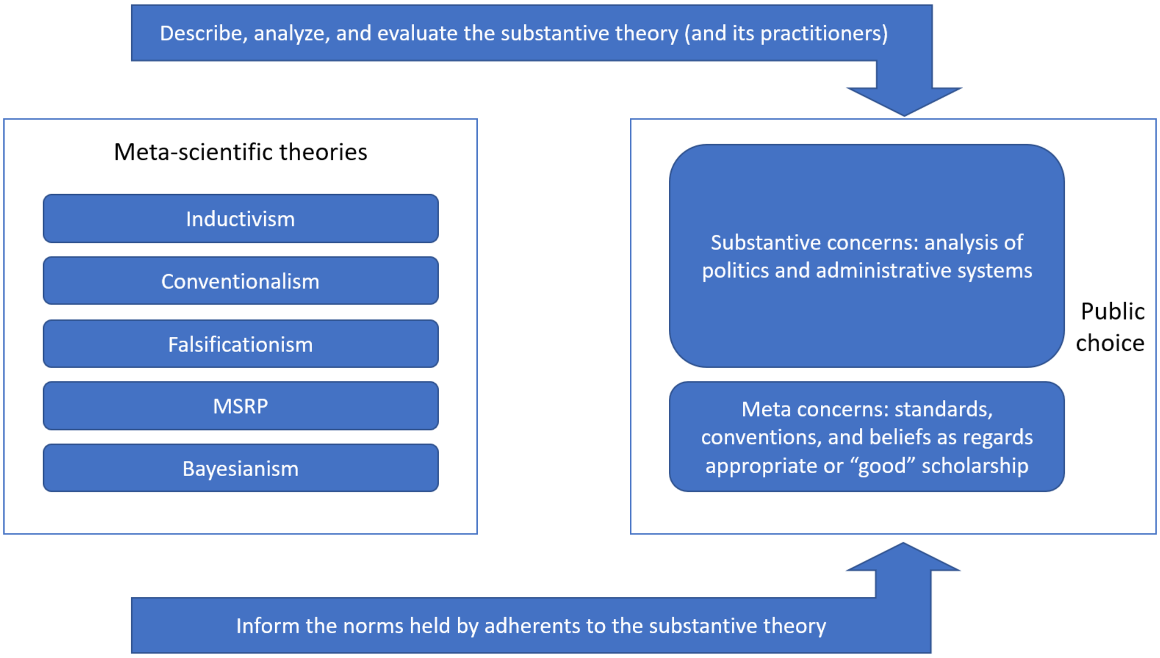

Figure 2: Connections between the theories that guide the empirical study of this thesis (meta-scientific theories), and the theory that is the subject of the empirical study (Public Choice): The meta-scientific theories aim to describe, analyze, and evaluate substantive academic theories, of which Public Choice is one. In addition, meta-scientific theories can and often are used to inform the methodological and epistemological assumptions that underpin any given substantive theory.

Table 4.5.B

State mechanisms for influencing and intervening in business

	Form of company ownership	
Influence and intervention mechanisms	*State ownership (types 1 + 2)*	*Private ownership (types 3 + 4)*
The state as the owner (profit transfers)	✓	
The cadre system (managers)	✓	
Financing (lending by banks)	✓	✓
Industrial policy (funding programs)	✓	✓
Regulation (approvals, etc.)	✓	✓
The state as the key customer (public procurements)	✓	✓

Figure 3: Table taken from Szepan (2016, p. 211) to summarize the "State mechanisms for influencing and intervening in business" that exist in the PRC.

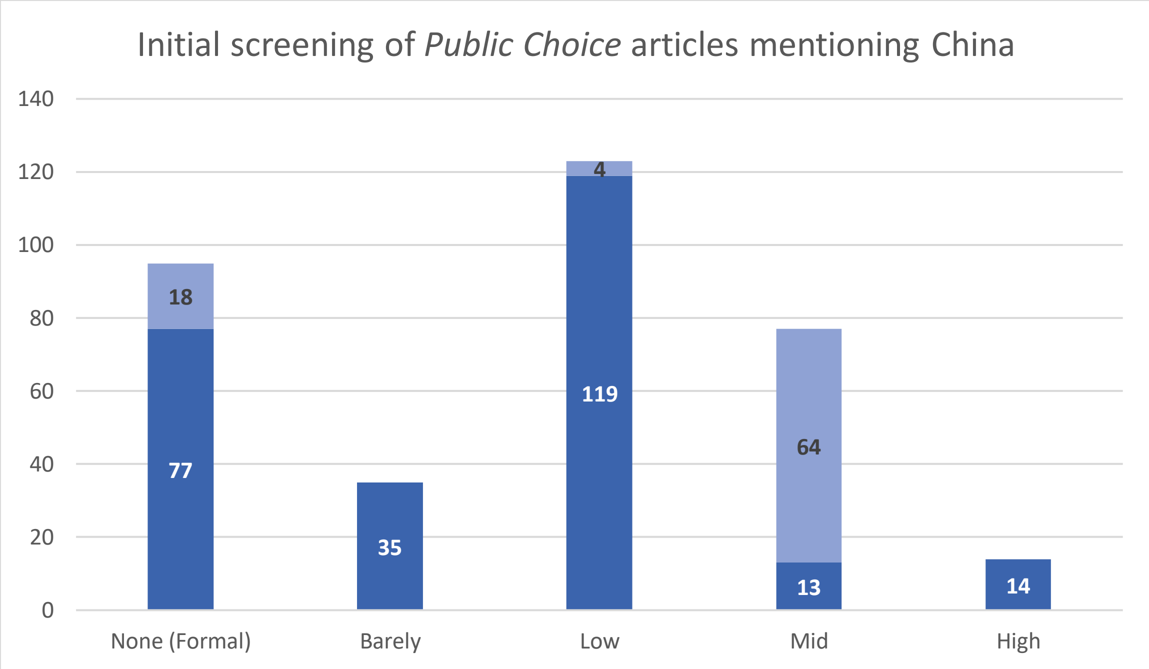

Figure 4: Classification of 344 articles in Public Choice*, which mention China at least once, classified according to how relevant the text is to the topic of China's recent development success.*

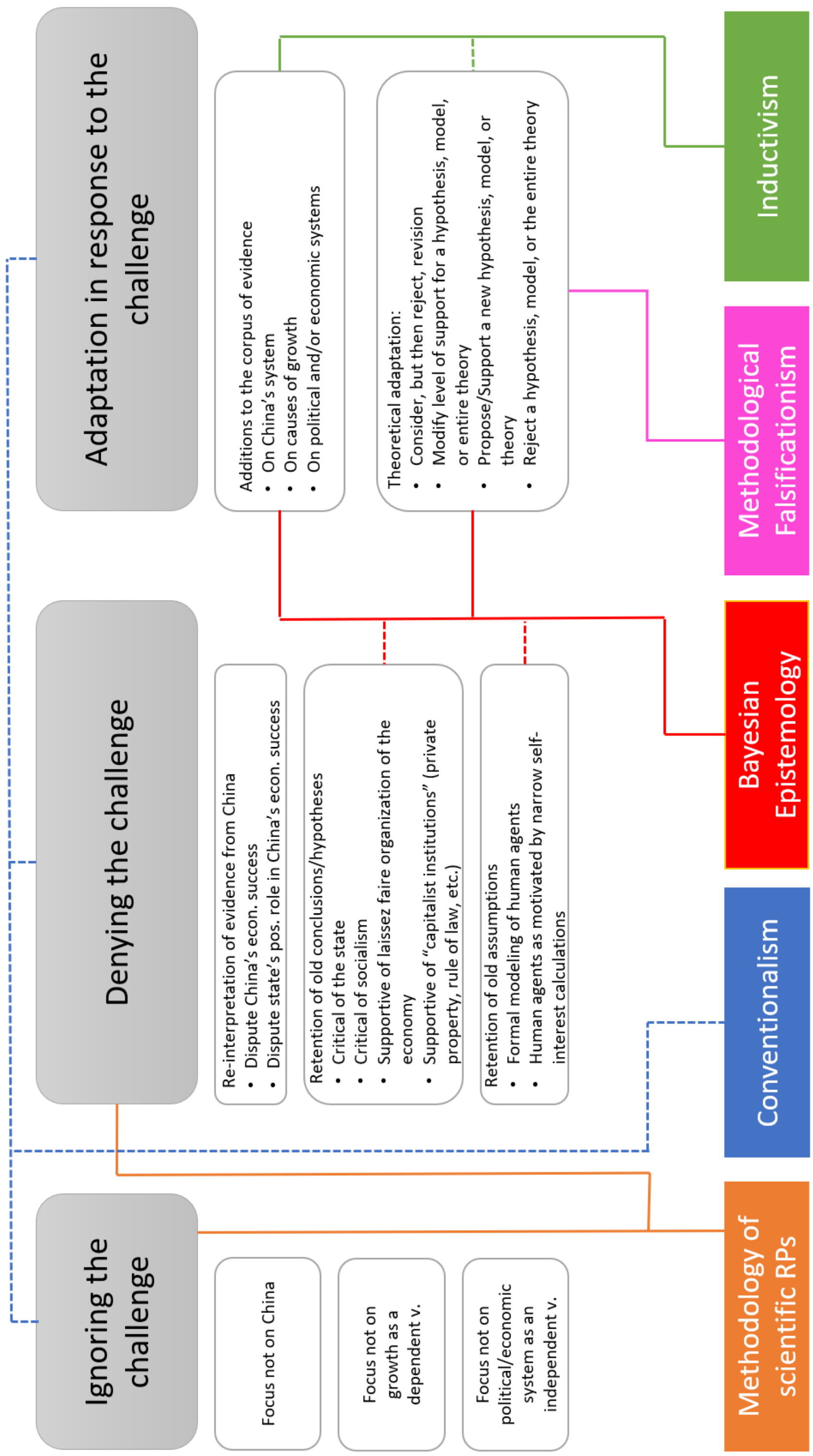

Figure 5 (expanded): Codes used for analyzing articles in the journal Public Choice*, and their connection to meta-scientific theories: The grey rectangles in the top of the figure represent the main codes used in the analysis, the white rectangles below represent sub-codes used to specify the type of response observed in an article (e.g., the sub-codes on the very left of the figure provide more detailed information on how any given article may be ignoring the challenge posed by evidence from China). The colored rectangles in the bottom of the figure denominate the five theoretical approaches I outlined in chapter 3; each theoretical approach yields certain expectations about how scholars are likely to respond to challenging evidence, and they are linked to the codes in* *accordance with those expectations (e.g., Lakatos' Methodology of scientific research programmes would suggest that scholars either ignore challenging evidence or deny that there is a challenge).*

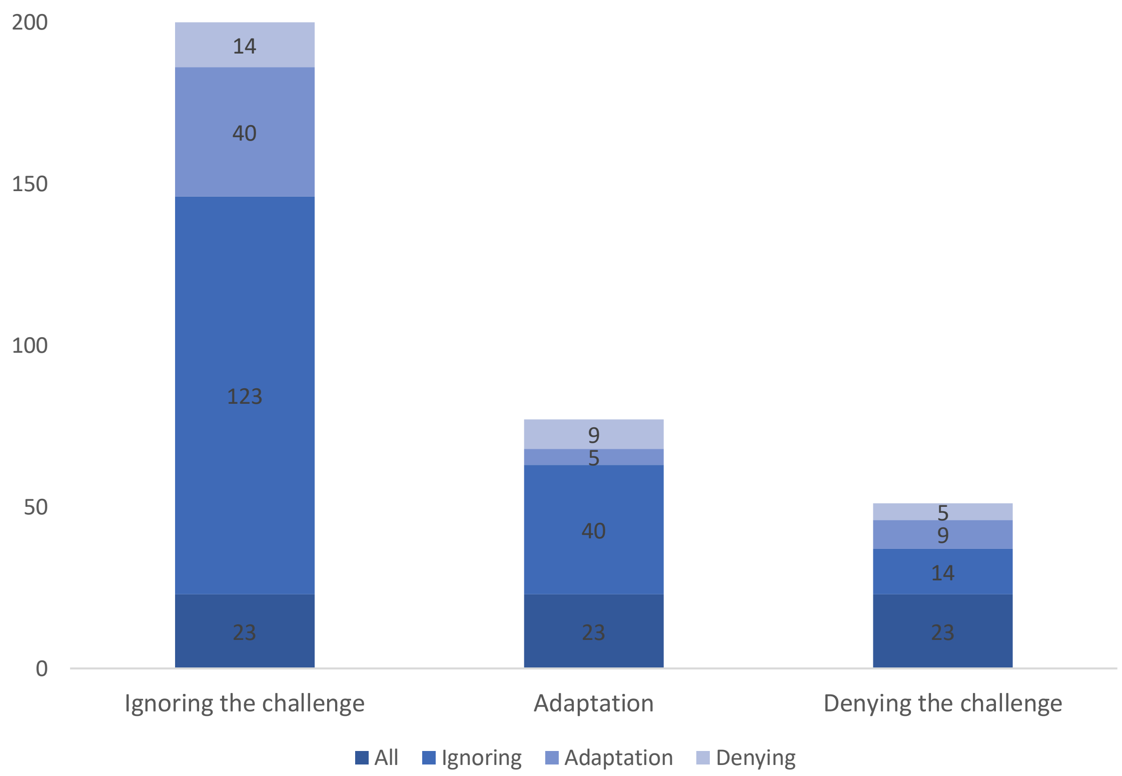

Figure 6: Distribution of main codes across all 214 articles from the journal *Public Choice*, which mention China and have some relevance to the research question. The three bars show the number of articles with the respective main codes assigned overall; the coloring is meant to illustrate co-occurrence of main codes (i.e., the sections in the bar are meant to illustrate how often a main code was assigned alone and in combination with one or both of the other main codes).

Response strategy	Example
Ignoring the challenging evidence	An analysis of how child-raising costs affect fertility rates in a country (B. Xu and Pak 2021)
Implicit denial (no reconsideration of the RP)	A cross-country study that finds a correlation between a small state and high satisfaction in the population (Bjørnskov, Dreher, and Fischer 2007)
Explicit denial (re-interpretation of evidence)	A favorable review of a book that explains economic success in the PRC by emphasizing the importance of entrepreneurial ingenuity (Gohmann 2013)
Adaptation: modify assumptions	A new model of Communist Party politics that finds self-interest-based incentives for party members to pursue economic growth (Wintrobe 2012)
Adaptation: add variables	A theoretical article that proposes the strength of distributional coalitions (interest groups) as a mediator which determines whether state interventions in the economy have negative or positive effects (Tang and Hedley 1998)
Adaptation: modify degree of confidence in the RP (or in some of its claims)	/
Abandoning the RP	/

Figure 7: Typology of the responses individual scholars take when confronting with evidence that challenges their chosen research program. RP is short for research program. The types of response as listed in the left-hand column were defined in the course of analyzing the empirical material; the right-hand column gives concrete examples of each type of response, taken from the corpus of *Public Choice* articles that were analyzed for this study.

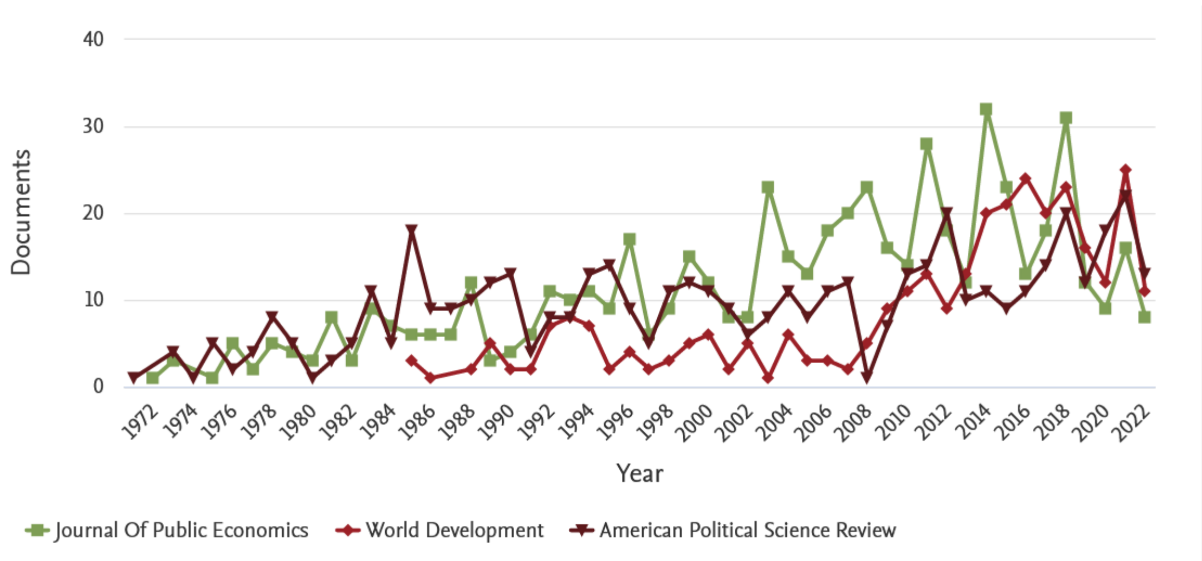

*Figure 8: Number of references to “Public Choice” in three potentially relevant, discipline-wide journals, across time. Source: www.*scopus.com (Elsevier).

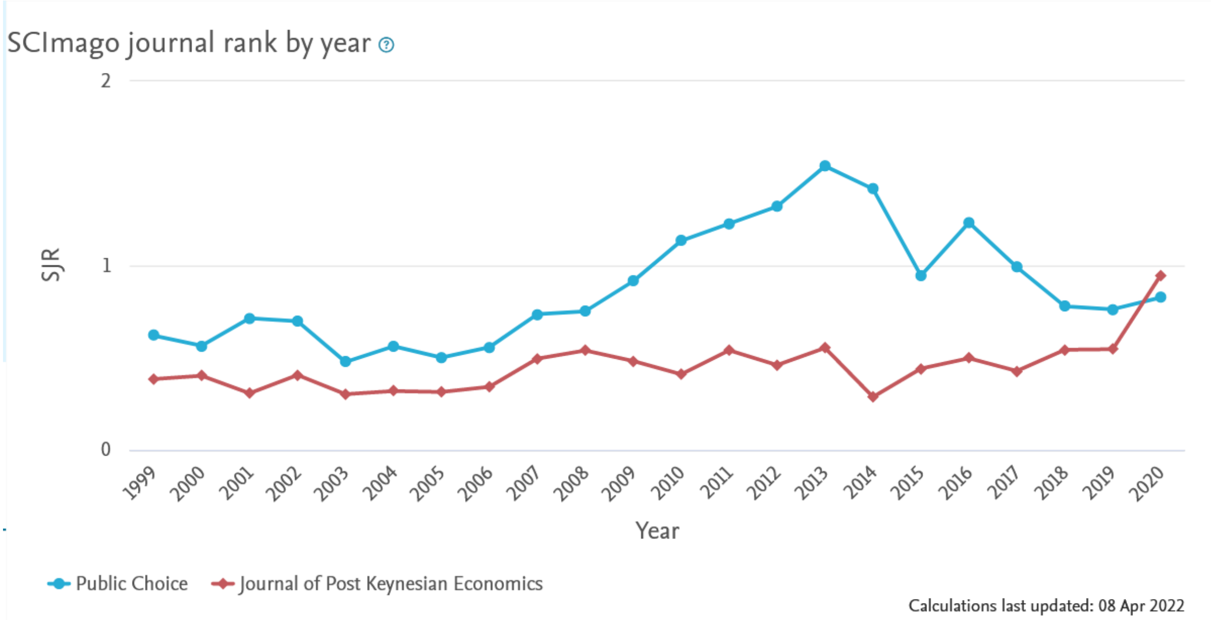

Figure 9: Ranking of Public Choice *and a journal of one of its major competing research programs (the* Journal of Post Keynesian Economics*, which takes a much more favorable stance towards state interventions in the economy), according to the SCImago Journal Ranking indicator. Source:* www.scimagojr.com.

Code	Link to meta-scientific theories
Ignoring the challenge	Conventionalism, MSRP
Documentation of fact	Bayesian Epistemology, Inductivism
Re-interpretation of evidence	Conventionalism, MSRP
Adaptation of theoretical periphery	Conventionalism, MSRP
Rejection of hypothesis/old generalization	Falsificationism, Inductivism
Rejection of theory	Falsificationism
Generalization from Chinese experience	Inductivism
New predictions	Falsificationism, Inductivism, MSRP
New theory	Conventionalism, Falsificationism
New hypothesis	Falsificationism, MSRP
Reconsideration of hypothesis/beliefs	Bayesian epistemology

Table 1: Initial list of codes, constructed deductively and informed by a number of meta-scientific theories and their expectations for how scholars respond to conflicting evidence (see Chapter 3). The coding scheme was revised and adapted heavily in the course of the analysis, and the codes in this table were not used to categorize the data in the final analysis. MSRP is short for Methodology of Scientific Research Programmes.

Year	None	Barely	Low	Mid	High	Sum
1973	0	0	0	1	0	1
1974	0	0	2	0	0	2
1975	0	0	1	0	0	1
1977	0	0	1	0	0	1
1981	1	0	2	0	0	3
1982	0	0	1	0	0	1
1983	0	0	1	0	0	1
1985	1	0	0	0	0	1
1986	2	0	0	0	0	2
1987	1	0	0	1	0	2
1988	2	0	2	1	0	5
1989	1	0	1	0	0	2
1990	0	0	0	3	0	3
1991	4	0	1	0	0	5
1992	0	0	0	4	0	4
1993	5	0	3	0	1	9
1994	2	0	2	1	0	5
1995	5	0	0	1	0	6
1996	0	3	2	1	1	7
1997	5	0	2	2	0	9
1998	2	0	3	1	1	7
1999	2	1	1	1	1	6
2000	2	0	1	1	0	4
2001	2	0	2	1	0	5
2002	1	1	0	1	0	3
2003	1	0	2	0	0	3
2004	3	3	3	3	1	13
2005	3	2	2	0	0	7
2006	4	1	2	1	0	8
2007	2	0	4	4	0	10
2008	3	2	8	2	0	15
2009	4	1	6	7	0	18
2010	3	3	9	2	0	17
2011	2	3	7	5	0	17
2012	8	3	6	4	2	23
2013	3	1	4	5	1	14
2014	0	2	2	5	1	10
2015	5	0	5	0	0	10
2016	1	3	7	1	0	12
2017	1	3	3	1	1	9
2018	1	0	4	1	1	7
2019	3	0	7	3	0	13
2020	1	1	7	5	0	14
2021	9	2	7	8	3	29
Sum	95	35	123	77	14	344

Table 2: Distribution of articles in the journal Public Choice *across the years and by relevance rating.*

Code	Count
Main_Ignoring	**200**
M_Ig Focus not on China	189
M_Ig Focus not on growth/prosperity	156
M_Ig Focus not on pol.econ	129
Main_Adaptation	**46**
M_A consider revision (but no rejection)	42
M_A propose new model/hypothesis/theory	42
M_A reject model/hypothesis/theory	20
M_A topic: document China’s success	2
M_A topic: China’s system	18
M_A topic: cause.of.growth	40
M_A topic: motives of individual action	13
M_A topic: pol.econ	96
Main_Denying	**77**
M_D Re-interpretation: dispute China's success	5
M_D Re-interpretation: dispute pos. state role in China	11
M_D Retain A: formal modeling	24
M_D Retain A: narrow self-interest	35
M_D Retain H: critical of socialism	6
M_D Retain H: critical of state/government	18
M_D Retain H: support capitalist institutions	14
M_D Retain H: support laissez faire	13
Side_Ignoring	**0**
S_Ig Focus not on China	0
S_Ig Focus not on growth/prosperity	0
S_Ig Focus not on pol.econ	0
Side_Adaptation	**30**
S_A consider revision (but no rejection)	1
S_A propose new model/hypothesis/theory	7
S_A reject model/hypothesis/theory	5
S_A topic: document China’s success	8
S_A topic: China’s system	17
S_A topic: cause.of.growth	1
S_A topic: motives of individual action	4
S_A topic: pol.econ	5
Side_Denying	**52**
S_D Re-interpretation: dispute China's success	15
S_D Re-interpretation: dispute pos. state role in China	26
S_D Re-interpretation: China as an outlier/exception	7
S_D Retain A: formal modeling	3
S_D Retain A: narrow self-interest	3
S_D Retain H: critical of socialism	2
S_D Retain H: critical of state/government	4
S_D Retain H: support capitalist institutions	14
S_D Retain H: support laissez faire	7

Table 3: Distribution of codes assigned to the Public Choice *articles in this study. Head codes are printed in boldface, sub-codes in normal font.*

Source	Relevance	Response type
Niskanen, *Bureaucracy & Representative Government*, (1971)	No mention of China Negative view of the state and bureaucracy as welfare-maximizing entities	Prior to economic success -> no response possible
Niskanen, "Economic Deregulation in the United States: Lessons for America, Lessons for China Economic Reform in China" (1988)	Short discussion of economic reforms in China and provision of recommendations to Chinese policymakers	Implicit denial: retain advocacy for small state; retain negative view of socialism
Niskanen, "Oil Is Not Worth a War" (2008a [1991])	China mentioned in the context of geopolitics	Ignoring the challenge
Niskanen, "The Economic Basis for Military Capability" (2008b [1991])	China mentioned in the context of geopolitics	Ignoring the challenge
Niskanen, "The Intellectual Case for a Free Market Economy" (2008c [1991])	Acknowledgement of China's economic success but no in-depth discussion	Implicit denial: retain advocacy for small state; retain negative view of socialism Explicit denial: emphasize reduction of state role in the Chinese economy
Niskanen, "Bureaucrats and Politicians", (1994b)	Review and reflection by William Niskanen on his own ideas -> self-proclaimed response to epistemic challenges No mention of China	Ignoring the challenge Implicit denial: retain negative view of large state role
Niskanen, "A Reassessment", (1994a)	Review and reflection by William Niskanen on his own ideas -> self-proclaimed response to epistemic challenges No mention of China	Ignoring the challenge Implicit denial: retain negative view of large state role
Tullock and Carr, *Fifteen Years of Communist China* (1965)	Focused on China, but in the early years of the PRC	Prior to economic success -> no response possible
Tullock, *The politics of bureaucracy* (1965)	Analysis of bureaucratic systems and their effects on national wealth and prosperity	Prior to economic success -> no response possible Adaptation: Modify assumptions
Tullock and Grier, "An empirical analysis of cross-national economic growth, 1951–1980" (1989)	Cross-country study on the causes of economic growth	Implicit denial: retain negative view of large state role
Tullock, "Reviews" (1994)	Favorable review of a book that describes China as a "genocidal state"	Explicit denial: emphasize negative effects of state actions in China Ignoring the challenge

Tullock, Brady and Seldon, *Government Failure* (2002)	Discussion of the effects of state actions on economic growth No mention of China	Ignoring the challenge Implicit denial: retain negative view of large state role
Tullock, "My path to *The Calculus of Consent*" (2012a)	Side mention of China and the political-economic system there	Explicit denial: emphasize reduction of state role in the Chinese economy Ignoring the challenge
Tullock, *Autocracy* (2012b)	Discussion of autocratic political systems, the behavior of political leaders, and the effects of both on national wealth and prosperity	Adaptation: modify assumptions Implicit denial: retain negative view of large state role Ignoring the challenge
Tullock, Rowley and Tollision, *The Political Economy of Rent-Seeking* (2013)	Review and reflection by Gordon Tullock on his own ideas -> self-proclaimed response to epistemic challenges No mention of China	Ignoring the challenge Implicit denial: retain negative view of large state role
Wintrobe, "Privatization, The Market For Corporate Control, And Capital Flight From Russia" (1998b)	No mention of China Discussion of "communism", market transitions, and property rights	Implicit denial: retain negative view of socialism, and claims about the invaluable role of private property rights
Wintrobe, *The Political Economy of Dictatorship* (1998a)	Several mentions of China Discussion of "communism" and its effects on economic development Question of how countries like China achieved high growth is raised, but not discussed in-depth	Adaptation: modify assumptions Implicit denial: retain negative view of socialism Explicit denial: emphasize reduction of state role in the Chinese economy
Wintrobe, "How to Understand, and Deal With Dictatorship: An Economist's View" (2001a)	Discussion of "communism" and its effects on economic development Acknowledgement of China's economic success but no further discussion	Adaptation: modify assumptions (partial) Implicit denial: retain negative view of socialism
Wintrobe, "Mancur Olson, Power and Prosperity: Outgrowing Communist and Capitalist Dictators" (2001b)	No mention of China Discussion of the causes of economic growth and the role of the state and of politicians	Adaptation: modify assumptions
Wintrobe, "Autocracy and Coups d'etat" (2012)	Discussion of the CPC and its successful promotion of economic growth	Adaptation: modify assumptions Adaptation: add variables to explain differences in economic growth between autocracies Explicit denial: emphasize reduction of state role in the Chinese economy

Table 4: Resources considered in the analysis of individual public choice scholars, their relevance to the research question, and the response type they fall into.

Selection of the research subject: China's recent history has been described as an event that hit analysts of different social scientific disciplines and research programs by surprise, so there is quite a range of scholarly families that I could have chosen for the present empirical investigation. As discussed in section 2.1 of the thesis, my intention is not to produce fully generalizable insights, which is why my selection of the research subject was not guided by concerns about representativeness and universality. My goals are rather to investigate and illustrate the practice of scholarly belief-updating in one specific case, to improve our understanding of academia narrowly in that specific case, to yield a frame of reference for analyzing other cases, and to spur normative thinking about academic practice more broadly. For this reason, my main selection criterion was how clearly China does, in fact, present conflicting evidence to the chosen research program.

Two of the schools of thought that are accused most frequently of being in conflict with evidence from China are modernization theory (Zhou 2021; Zhang 2000) and neoliberal economics (Horesh and Lim 2017; Kadri 2020). However, a closer look at these "schools of thought" reveals that they are nothing like an internally coherent research program; in fact, it seems the labels "modernization theory" and "neoliberalism" are rarely (if ever) used by proponents to situate their own ideas in a larger paradigm. Rather, the labels appear primarily in the texts of critics who lump together a diverse set of actors (academic disciplines, individual academics, international organizations, certain think tanks and research institutes) under a single category with ambiguous characteristics. For this reason, I departed from an earlier plan to choose either "modernization theory" or "neoliberal economics" as my subject of study and opted for a more clearly defined research program instead: *Public Choice*. The theory of Public Choice is not mentioned quite as often in conjunction with China's economic miracle but it is known for its derogation of socialism as a way to organize an economy and for its advocacy of privatization and deregulation, which makes the theory an appropriate candidate for my empirical case study: Public Choice's claims about the tight connection between state intervention and economic stagnation are, as I argue in sections 4.1 and 4.2, challenged by the Chinese development experience, and I dedicate my thesis to the

Box 1: Reasoning for selecting Public Choice as a subject for the investigation of how scholars respond to the challenge posed by evidence from China's recent economic history.