



博士文丛·经管系列
Economics and Management

◎ 谢子远 著

我国国债宏观经济效应 实证研究

Empirical Study on the Macro-economic
Effects of National Debt in China



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A 摘要 Abstract

本书在学习和借鉴前人相关研究的基础上,运用现代经济计量方法,对 20 世纪 80 年代以来我国国债的宏观经济效应进行了研究。全书共分 9 章:第 1 章为绪论;第 2 章回顾国债宏观经济效应的理论演进并进行文献综述;第 3 章研究国债的公共支出及增税效应;第 4 章研究国债的民间支出效应;第 5 章研究国债的劳动就业效应;第 6 章研究国债的乘数效应;第 7 章研究国债的税收平滑效应;第 8 章研究国债的金融效应;第 9 章为结论及政策建议。

第 1 章绪论部分,交代了研究国债宏观经济效应的背景、目的、理论和现实意义,对国债的概念进行了界定,说明了本书的研究内容与研究方法,并指出了本书的创新之处及不足之处。

第 2 章回顾了国债宏观经济效应的理论演进,基本结论是:很难就国债本身评价其宏观经济效应的优劣,而应当在特定的时空背景下评价国债在某个国家或地区在某个特定的历史时期产生了怎样的宏观经济效应。可以说,国债是一把双刃剑,操作得好就会产生正面的经济效应,操作不好就会产生负面的经济效应。同时本章对国债宏观经济效应的相关研究进行了综述,这为我们的研究奠定了基础。

第 3 章研究了国债的公共支出及增税效应,这是我国国债宏观经济效应研究中较为薄弱的的一个方面。其中国债的财政扩张及增税效应、国债的政府消费效应两个方面的研究,国内还较为少见。研究发现,不论是否包含国债还本付息因素,国债均具有一定的财政扩张效应,说明国债为政府部门提供的融资便利满足了其扩张偏好,可能在一定程度上导致财政预算的放松,降低了财政资金的使用效益。同时,研

究发现,财政支出的扩张是导致税收增加的重要原因,因此国债又具有一定的增税效应,这在某种意义上解释了积极财政政策实施期间国债发行与税收收入双双持续增长这一饱为人们诟病的事实。研究发现,国债具有政府消费效应,即促进了政府消费的增长,这否定了国债资金主要用于公共投资这一传统看法,说明国债资金是支持政府消费的重要力量。在国债的公共投资效应研究中,由于目前公共投资缺乏统一的口径,因而导致不同的研究结论缺乏可比性。我们的创新性在于,根据文献研究,确定了较为常用的四个口径的公共投资,并分别研究了国债与这四个口径公共投资之间的关系。研究发现,国债仅仅对其中按照投资领域划分的公共投资具有一定的促进作用。进一步的研究发现,该公共投资对经济增长没有促进作用,这说明国债并没有通过公共投资这一途径促进经济增长。我们认为,出现这一现象的原因在于按照投资领域划分的公共投资并非“纯公共产品”,某些传统上认为是公共投资的领域已经有民间资本介入,说明这些领域可能更适合民间投资而不是公共投资。公共投资在这些领域效率低下,可能是导致其缺乏经济增长效应的重要原因。另外,通过考察国债的预算内固定资产投资弹性,我们发现从长期来看,国债不仅没有促进预算内固定资产投资,而且两者呈负相关关系。从这些研究结论出发,我们认为国债资金的公共投资政策应当加以调整。

第4章研究了国债的民间支出效应,包括国债的民间投资效应及民间消费效应。在研究国债的民间投资效应时,我们不仅按照传统的研究方法考察了公共投资(按照投资领域划分)对民间投资的影响,而且还直接考察了国债与民间投资的关系。研究发现,不论运用哪种方法,得出的结论都是一致的,即国债对民间投资产生了挤出效应。辩证地看,产生挤出效应未必是坏事,要具体分析是什么样的公共投资挤出了什么样的民间投资。但我们认为,我国的公共投资挤出民间投资,主要原因是公共投资本身质量不佳,同时又存在对民间投资的种种限制,因此应极力避免这种投资,其途径就是改革我国的公共投资体制,解除对民间投资的各种限制。在国债的民间消费效应研究中,与前人研究的一个显著不同是,我们不仅考察了国债与包括城镇居民消费和农村居民消费在内的民间总消费之间的关系,而且分别考察了国债与城镇居民消费和农村居民消费之间的关系。研究发现,从1981—2005年的整个时间段来看,仅仅是城镇居民消费与基本赤字国债之间存在一定的相互影响关系。脉冲响应函数表明,基本赤字



国债对城镇居民消费带来的冲击是负的,说明国债的储蓄性质推迟了城镇居民的当前消费,对城镇居民的当前消费具有一定的抑制作用。当分别在 1981—1993 年和 1994—2005 年两个时间段上进行考察时,发现在两个时间段上存在着明显的差别:1981—1993 年,城镇居民消费是国债发行的重要考虑因素,即是否发行国债及发行多少国债在很大程度上取决于城镇居民的消费水平;1994—2005 年,农村居民消费是国债发行的重要考虑因素,即国债的发行规模在很大程度上取决于农村居民的消费水平,说明这一时期拉动消费的主要对象是农村居民。但是,不论是国债发行额,还是基本赤字国债,对农村居民消费和城镇居民消费均没有产生明显的影响。因此,我们的结论是,改革开放以来,居民消费水平是影响国债发行的重要因素,但是国债对居民消费的影响并不显著。具体地说,1997 年以来,以发行国债为核心的积极财政政策并没有达到拉动民间消费的作用,从基本赤字国债与民间消费的关系来看,甚至在一定程度上抑制了民间消费。通过对城乡居民消费倾向演变路径的比较分析,我们认为居民消费难以拉动的首要原因是居民尤其是农村居民收入水平偏低,次要原因则是社会保障制度不完善导致的居民支出预期过大。

第 5 章研究了国债的劳动就业效应。通过建立就业人数的一阶自回归模型,发现自 1997 年实施的以发行国债为核心的积极财政政策显著改变了就业人数的发展路径,对劳动就业具有较为明显的拉动作用。但由于现阶段及今后很长一段时间内,我国将始终面临较为严峻的就业压力,国债政策应当根据产业就业弹性等因素进行调整,以期更好地发挥拉动就业的积极效应。

第 6 章研究了国债的乘数效应。运用 IS—LM 模型,对财政政策乘数进行了推导,运用三阶段最小二乘法对我国的财政政策乘数进行了测算,发现我国历年的财政政策乘数在 1.46~1.61 之间波动。据此,通过对我国的财政增支及增发国债的经济增长效应进行的测算发现,实施积极财政政策期间,国债对经济增长产生了一定的拉动作用,但作用力度并不像人们普遍认为的那样大。

第 7 章研究了国债的税收平滑效应。通过模型说明,如果税收平滑定理成立,那么宏观税率应该是一个随机游走过程,据此进行的实证研究表明,税收平滑定理在我国不成立。这说明,国债在平滑税率方面没有发挥应有的作用,国债政策及税收政策需要作相应调整。

第 8 章研究了国债的金融效应,包括国债的货币供给效应、国债的利率效应



和国债的通货膨胀效应。在研究国债的货币供给效应时,与以往不同的是,我们不仅研究了国债与 $M0$ 、 $M1$ 和 $M2$ 的关系,还研究了国债与货币供给的各个组成部分之间的关系。研究发现,国债余额对各货币供应量均无明显影响;国债发行对狭义货币供应量($M1$)和活期存款没有明显影响,对流通中的现金($M0$)、广义货币供应量($M2$)、活期存款及准货币($M02$)、准货币($M12$)具有明显的扩张作用。在研究国债的利率效应时,分析了货币供应量不变及货币供应量扩大时国债对利率的影响。实证研究表明,我国国债对实际利率没有明显影响。在从理论上分析国债的通货膨胀效应时,除传统的研究视角以外,还通过模型说明,政府在面临高额债务时,可能会有意识地“制造”通货膨胀,从而增加铸币税收入,减轻偿债压力。实证研究表明,在 1982—2005 年整个时间段上,没有发现国债与物价水平之间的因果关系。但我们在 1982—1993 年和 1994—2005 年两个时间段上分别进行研究时,发现 1982—1993 年间国债对物价水平没有影响,但 1994—2005 年间国债具有明显的通货膨胀效应。

第 9 章总结了全文的研究结论,并对国债政策的后续操作提出了若干政策建议。

关键词: 国债 宏观经济效应 格兰杰检验 挤出效应



ABSTRACT

Based on former related studies and newest econometric methods, the dissertation studies the macro economic effects of the national debt in China. There are totally nine chapters: the first chapter is an introduction; the second looks back on the theory evolvement of national debt's macro economic effects and has a literature review; the third studies national debt's economic effects on fiscal expenditure and tax augment; the fourth studies the effects of national debt's civilian expenditure; the fifth studies national debt's employment effects; the sixth studies national debt's multiplier effects; the seventh studies national debt's tax smoothing effects; the eighth studies national debt's financial effects; and the ninth are conclusions and policy suggestions.

The introduction makes clear the background, intention, theory and practice meaning of this study. It also gives the conception of national debt, explains the study contents and methods and points out the innovations and defects of the dissertation.

The second chapter looks back on the theory and practice evolvement of national debt's macro economic effects and draws out a basic conclusion, i. e. it is hard to evaluate national debt's macro economic effects in itself, but it is feasible to have the evaluation on special regions under special temporal and spatial background. National debt, in a sense, has two sides, and if properly used, it will produce positive effects, otherwise, it will produce negative effects. The chapter

also has a review on related literatures, which constitutes the base for our study.

The third chapter deals with the effects of national debt on fiscal expenditure and tax rise, which is a weakness of relative studies in China. Among them, study of the effects of national debt on fiscal expenditure expanding, tax raising and government consumption is scarce. One conclusion is that whether or not repayment of national debt's principal and interest is included, fiscal expenditure is expanded for national debt, which implies that the facilities national debt providing for government satisfy government's bias for expenditure expanding, which might lead to the waste of fiscal funds. At the same time, fiscal expenditure is found to be the important cause of taxation, which implies that national debt has the effect of tax augment. This can to some extent explain the fact that both national debt and tax had been persistently increasing during the time when active fiscal policy was enforced. Another finding is that national debt has promoted government consumption, which denies the mainstream view that national debt fund has been mainly used for public investment, and national debt, according to our study, is an important source for government consumption. When national debt's public investment effect is studied, it is found that there is not a commonly accepted measurement of public investment, hence, based on literature study, four measurements of public investment are introduced, which is an innovation of the dissertation. Subsequently, the relationships between national debt and each kind of public investment are studied. Our conclusion is that national debt has only promoted the public investment which is measured according to investment industries. And the further study indicates that this kind of public investment has no contribution to economic growth. Then the conclusion is that national debt has not promoted economic growth by way of public investment. The reason, it is thought, is that the public investment divided by industry is not "pure public investment", and many industries traditionally regarded as "public investment industries" have found civilian investment, which indicates that, civilian investment, in these industries, can be of more efficiency than that of government investment. Moreover, by studying national debt's budget fixed asset elasticity, a



negative relationship between national debt and budget fixed asset elasticity is found. From these conclusions, it is suggested that national debt's public investment policy should be adjusted.

In chapter four, national debt's civilian expenditure effect is studied, including civilian investment and civilian consumption. When national debt's civilian investment effect is studied, both traditional way — studying the relationship between public investment (divided by investment industries) and civilian investment, and a new way — studying the relationship between national debt and civilian investment directly, are used. The conclusion is consistent, i.e., national debt has crowded out civilian investment. Dialectically speaking, the crowding out effect is not always a bad thing. But what has happened in China, it is thought, is due to the inferiority of public investment and kinds of constraints on civilian investment and, therefore, must be got rid of. When it comes to national debt's civilian consumption effect, not only the relationship between national debt and total civilian consumption, including urban and rural consumption, but also the relationships between national debt and urban consumption, national debt and rural consumption are studied respectively. The findings are as follows: over the period 1981 to 2005, only urban consumption and basic deficit debt have some interactional relationship. The impulsive responding function indicates that the shock basic deficit debt brings to urban consumption is negative, which implies that the saving characteristics of national debt has postponed urban consumption. But when the relationships are studied over the periods 1981 to 1993 and 1994 to 2005, an important distinction is found: over the year 1981 to 1993, urban consumption is an important factor that influences national debt issue; whereas over the year 1994 to 2005, urban consumption is substituted by rural consumption. That is, urban or rural consumption is one reason that leads to debt issue, but national debt does not have influence on urban or rural consumption. So, according to our study, national debt in China hasn't promoted, and to some extent has restrained civilian consumption. Through analyzing the evolvement path of civilian consumption, it is concluded that the low income level is the most important reason that civilian



consumption is hard to stimulate.

The fifth chapter is about effect of national debt on employment. By a one phase auto regressive model of employment number, it is found that the active fiscal policy since 1997, national debt at the core, has significantly changed the path of employment and has promoted employment distinctly. Since China will face severe employment pressure for a long time from now on, national debt policy should be adjusted according to factors such as industry employment elasticity, etc., so as to promote employment more effectively.

In chapter six national debt's multiplier effect is studied. Fiscal policy multiplier is induced through *IS—LM* model, and the fiscal policy multiplier in China is estimated by three stage ordinary least square (3-stage OLS). The conclusion is that the multiplier in China has fluctuated between 1.46 and 1.61. According to that, the economic growth effects of fiscal expenditure increment and national debt increment are estimated. It is found, according to our estimation, that national debt has promoted economic growth during the active fiscal policy period, but the extent is not as much as commonly considered.

The seventh chapter deals with the effect of national debt on tax-smoothing. It is testified that macro tax rate should be a random walk series if tax-smoothing hypothesis holds true. But the corresponding empirical study on China denied the tax-smoothing theorem. This is a proof that national debt hasn't worked in smoothing tax rate, and national debt and taxation policy should be adjusted.

The eighth chapter deals with effect of national debt on finance effect, money supply, interest rate effect and inflation effect included. When national debt's money supply effect is studied, studies are made on not only the relationships between national debt and M_0 , M_1 and M_2 , but also the relationships between national debt and components of money supply. The conclusion is that debt balance doesn't have influence on all levels of money supply, and the amount of debt issue does not have influence on narrow sense money supply and current deposit, but has expanded cash in circulation, broad sense money supply, current deposit & semimoney, and semimoney. When national debt's effect on interest rate is



studied, national debt's influence on interest rate is analyzed on the condition that money supply holds constant and is expanded respectively. The empirical study proves that national debt does not have distinct influence on real interest rate in China. When national debt's effect inflation is analyzed theoretically, both traditional angle and a new model are employed, and the latter illuminates that when facing heavy debt balance, the government might make inflation on purpose so as to increase fiscal income from seigniorage and alleviate repaying pressure. The empirical study shows that during the year 1982 to 2005, there is no causality between national debt and price level, but when the relationships are studied between the year 1982 to 1993, and between the year 1994 to 2005 respectively, it is found that between the year 1994 to 2005, national debt has distinctly caused inflation.

The ninth chapter summarizes the conclusions of the dissertation and puts forward some suggestions on subsequent operation of national debt policy.

Key words: national debt macro-economic effects Granger test crowding-out effect



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01 绪论

1.1 研究背景、目的及意义

自 1979 年恢复发行国债以来,我国国债发行呈持续上升的态势。1994 年预算制度的改革,使得该年成为国债发行的“分水岭”。1979—1993 年,国债发行额^①由 35.31 亿元升至 739.22 亿元,年均增长 24.26%。从 1994 年起,中央预算赤字不能再通过向中央银行透支加以弥补,国债在弥补财政赤字方面开始发挥更加重要的作用,这使得 1994 年的国债发行额一下子跃升至 1175.25 亿元,比 1993 年增长 58.99%。此后,国债发行额在这个基础上继续增长,1995、1996 年分别发行国债 1549.76 亿元和 1967.28 亿元,增长速度分别达到 31.87% 和 26.94%。1997 年,受亚洲金融危机等因素的影响,物价持续下跌,消费投资需求不旺,经济进入“通货紧缩”状态。为了治理通货紧缩,国家开始实施积极的财政政策,其核心就是增发国债,通过国债资金的运用达到刺激消费和投资需求、恢复经济增长的目的。基于此,国债发行继续高速增长,1996—2004 年,国债发行由 1967.28 亿元增加至 6879.34 亿元,年均增长 16.94%。增速看似有所放慢,但远远高于同期经济增长速度,绝对额增长迅猛。2005 年,积极财政政策转向稳健财政政策,国债发行增速仅为 0.63%,明显放缓。

财政政策变了,国债发行是否会停滞不前,甚至逐渐下降以致消失呢?从世界上绝大多数国家的经验来看,不会。首先,从财政角度来

^① 含内债和外债,下同。