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目录与内容提要

内容提要：多角度的考察表明，近代中国的总需求拉升价格的力度远大于总供给下压价格的力度，产出增长能力较弱；本币升值可以改善贸易收支，贸易条件成立；出口和进口的汇率弹性绝对值之和远小于 1，马歇尔—勒纳条件不成立。因此，近代中国经济的基本前提是供给约束型经济态势，总供给曲线的斜度应该陡峭的。于是，在使用经济学理论框架分析近代中国经济时，应首先考虑所用的理论之前提假设是否与近代中国的经济态势一致，从而避免南辕北辙。

Abstract：Multi-angled studies show that the strength of drawing price high by aggregate demand is more powerful than that of pushing price down in modern china, but the effect which increases output is weak. an appreciation of home currency can promote the trade balance and theory of terms of trade can also be proved. The absolute value of elasticity of import and export exchange rate is far less than 1, and Marshall–Lerner condition does not hold. In such a circumstance, China modern economy is a supply-constrained one, and its AS Curve is supposed to be steep. Considering this, when analyzing modern china economy, we need to study whether the theoretic premise is consistent with real economic situation in modern China or not, in order to avoid making mistakes.

编者按：刘巍教授的专著《近代中国的货币供给机制：历史、逻辑与实证》即将由高等教育出版社出版。这是一部计量经济史学的专著，对近代中国 1910～1936 年的货币供给决定机制做了逻辑分析和实证分析，分析结果表明，近代中国的货币量是银价变动导致的白银国际流动和国内金融机构的货币创造力度决定的。根据近代中国货币供给过程的特点和货币理论的逻辑，该书认为，1935 年之前中国的货币供给是“不可控外生变量”。 这种货币决定机制的基本含义是：对于一国来说，货币量变动的决定因素来自境外，而且政府无力控制，金融部门、实际部门无可奈何，市场信号、货币需求、产量等经济变量均是货币量的函数，对宏观经济运行的危害极大。法币改革之后，和平时期短暂，1935 年底货币改革，1937 年全面抗战爆发，直至其在大陆退出流通，都是在战乱岁月中。因此，尚难对其供给机制的性质下结论。中国经济史学界的领军人物之一王玉茹教授为该书做了序言，通过序言，学界同仁可以了解这本专著的主要内容。

The Editor's Note: The monograph by professor Liu,**《Money Supply Mechanism in Contemporary China, History ,Logic and Empirical Study》,**will be published by Higher Education Press. This is a cliometric monograph,making logical and empirical analysis for money supply mechanism from 1910 to 1936 in contemporary China. It concludes that the money supply at that time is decided by silver worldwide fluidity caused by the fluctuation of silver price and currency multiplier of domestic finacial sector. According to the character of contemporary chinese money supply and the logic of currency theory, the author claims that the money supply before 1935 is the uncontrollable external variable. The meaning of money decision mechanism is

that for one courtry ,the decisive factor of the fluctuation of money supply is from abroad, which can not be controlled by the government and finacial sector and real sector can not do anything about it ,which is a great hazard for the macroeconomic operation,because the market signal,money demand,and production and other variables are the function of money supply. After the reform of legal tender,the peaceful time is very short,and then currency reform happened in 1935. As is known to us , the arti-Japanese war broke out completely in 1937. Not until the legal tender was out of circulation in mainland, the period of circulation was full of chaos caused by wars. Therefore, it is hard to make a conculsion about money supply mechanism. Professor Wang yuru ,one of the leaders in chinese cliometrics has made a preface for the monograph,through which the academic colleagues know the main content of the monograph.

内容提要：消费不足一直是困扰中国经济稳定发展的重要因素。经济发展的历史规律如此相似，纵观英国经济发展的历史进程，消费需求的周期性发展变化规律总是伴随着科学技术的发展并由此导致的新产品的出现，经济态势也自然的发生演变：供给约束性——需求约束性——后供给约束性。可见，经济的长期稳定发展是建立在科学技术革命的原因之上，收入的增长和消费需求的增加和变迁皆为其结果。

Abstract: The insufficiency of consumption has always been an important factor troubling the stable development of chinese economy. The historic rule of economic development is quite similar. Through the course of British economic development, periodical development rule of consumption demand comes out with the development of science and technology and then the appearance of new products, while the economic situation is also evolved naturally: supply constraint to demand constraint to post-supply constraint. Thereby, the long-term stable development of economy is based on the revolution of science and technology,with the consequence of the growth and change of income and comsumption demand.

内容提要：计量经济史学正在庆祝研究工作开始 50 周年，如同了解在这样的学术水准上巧然产生一样，了解计量经济史学科走过的和正在走的路径是饶有趣味的。莱昂斯、凯因和威廉姆森编辑的《计量经济史革命的反思：和经济史学家的交流》(伦敦・劳特利奇出版社，2008 年)，为我们提供了一个既详细有很专业的序言，他们采访了参加经济史学科转型工作的 25 位学者。这个回顾性序言反映了在过去 50 年中经济史学科所发生的转变之本质。

Abstract Cliometrics is currently celebrating five decades of research and as happens at such benchmarks, there is an interest in understanding the path along which Clio has walked and where the discipline is going. *Reflections on the Cliometric Revolution: Conversations with Economic Historians*, edited by Lyons, Cain and Williamson (Routledge, London, 2008) provides us with a detailed introductory chapter on the history of the profession and a set of interviews with 25 scholars who were involved in the transformation of a discipline. This review essay reflects on the nature of the transformations during the past five decades.

储蓄不足与供给约束型经济态势

——近代中国经济运行的基本前提研究[①]

刘　巍

内容提要：多角度的考察表明，近代中国的总需求拉升价格的力度远大于总供给下压价格的力度，产出增长能力较弱；本币升值可以改善贸易收支，贸易条件成立；出口和进口的汇率弹性绝对值之和远小于 1，马歇尔—勒纳条件不成立。因此，近代中国经济的基本前提是供给约束型经济态势，总供给曲线的斜度应该陡峭的。于是，在使用经济学理论框架分析近代中国经济时，应首先考虑所用的理论之前提假设是否与近代中国的经济态势一致，从而避免南辕北辙。

关键词：供给约束型　总供求　贸易条件　马歇尔—勒纳条件　基本前提

考察任何一个国家的经济发展史，在其不同的发展阶段上，经济运行都受制于或受益于某种不同的前提条件（包括自然的和人文的条件）。因此，在经济史研究中，首先必须弄清一国在不同的历史阶段上最主要的前提条件。从这个最主要的前提条件出发，才能建立正确的逻辑分析框架，是得出正确结论的必要条件。考察新古典经济学的基本前提，很容易看出，重要假设是事前储蓄小于投资，基本经济态势是供给约束的，即经济增长或衰退的主要因素是供给。而凯恩斯经济学的重要假设是事前储蓄大于投资，基本经济态势是需求约束，有效需求不足，经济增长的发动机是总需求。经济史和经济学史的发展规律都在提示我们，分析不同时空的经济运行要用不同的理论框架，可能还需要研究者根据不同时空的前提假设来修正既有的理论框架。例如，至少以 1929~1933 年的大萧条为界，世界主要国家已经被需求约束型经济态势笼罩，无论用新古典经济学衍生的经济政策去治理大萧条，还是用新古典经济学的理论框架去解释大萧条，都是南辕北辙的。美国学者埃德温·查理曾深有体会地说过："任何理论对于经济现实是否具有可用性，取决于这些理论所赖以存在的假设在多大程度上反映了现实情况。如果假设与实际基本相符，则通过对某一'理论'的运用可以帮助我们理解和预测大量复杂的现实经济的变化。但如果所做假设与实际不相一致，那么，依靠这种理论会把我们引入歧途，从而使经济现实更为神秘莫测。"[②]

近代中国宏观经济运行的基本态势是供给约束型经济还是需求约束型经济，学界很少有人关注，在研究宏观经济具体问题时一般也无人讨论大前提。因此，在研究者错用理论框架分析近代中国经济时，也无人提出异议。本文拟就这一问题做多角度的讨论，对近代中国经济态势做出初步判断，从而避免错用经济学理论的现象。

一、从总供求与价格的关系角度分析

近代中国并非是主动走进市场经济大门的，而是在帝国主义列强的炮舰和商品交替攻击下被迫开始了经济近代化过程。进入 20 世纪之后，中国经济有了一定起色，农业经济在

[①]本文是国家社科基金项目《1887~1936 年中国 GDP 的估算与经济增长因素研究》（09BJL006）的中期成果。
[②]埃德温·查理：《发展中国家宏观经济学》，商务印书馆 1990 年版，第 245 页。

国民收入中所占比重退至 60%左右，新式的工商服务业有了一定的发展。但是，无论从人均收入水平还是工业化程度来说，都远远落后于西方列强。如果说西方列强已经到了需要减肥的阶段（储蓄过大），恐怕当时的中国还处于需要增体重（储蓄不足）的时期。因此，中国与列强的经济有着本质的不同。近代中国被卷入市场经济的时间不长，原始资本积累很不充分。人口众多且人均收入水平较低，农业在国民收入中所占比重大且增长缓慢。因此，储蓄在可支配收入中所占份额应该是很低的。在国际事务中，中国备受欺凌、割地赔款，储蓄严重流失。在西方国家早期，储蓄中包括殖民掠夺，而在近代中国的储蓄中，要减去被掠夺的储蓄。从 1840 年鸦片战争开始，一直到 1914 年第一次世界大战之前，中国在中外战争中屡战屡败，动辄割地赔款。甚至在中法战争、第一次世界大战胜利后，中国仍然是不败而败，经济损失惨重。所以，近代中国的储蓄流失是比较严重的。叶孔嘉博士于 20 世纪 70 年代估计了几个年份的总需求分类数据，我们据此观察一下近代中国若干年份的消费变化情况，从而可得到储蓄的基本轮廓。根据叶孔嘉博士估计的数据，我们计算了同时期的消费和储蓄在 GDP 中的占比。见表 1。

表 1　　1931—1936 年中国消费倾向储蓄倾向　　单位：1933 年价格 10 亿元

年份	GDP	总消费	年均消费额	年均储蓄额	平均消费倾向	平均储蓄倾向
1931	28.57	27.95				
1932	29.47	28.58				
1933	29.46	28.52	28.37	0.70	97.8%	2.2%
1934	26.90	27.01				
1935	29.09	28.32				
1936	30.94	29.85				

资料来源：根据 *Yeh K. C.* ,China's National Income,1931~1936 中的数据计算，见《中国经济史会议论文集》，中央研究院经济研究所，台北 1977，第 128 页。

在经济发展水平相对较高的抗战前，储蓄倾向都如此之低，若倒推至 19 世纪中叶，就算储蓄倾向不再更低，谅不会高于 1931~1936 年。此后，1937 年全面抗战爆发，在十多年的战争期间，储蓄倾向绝不会高于此间。储蓄严重不足的后果就是投资增长非常缓慢，在总需求上升时难有足够的新增资本参与生产，从而导致总供给增长缓慢。基于这些众所周知的判断，我们假定近代中国尚处于供给约束型经济态势下，我们勾勒的基本逻辑模式如图 1：

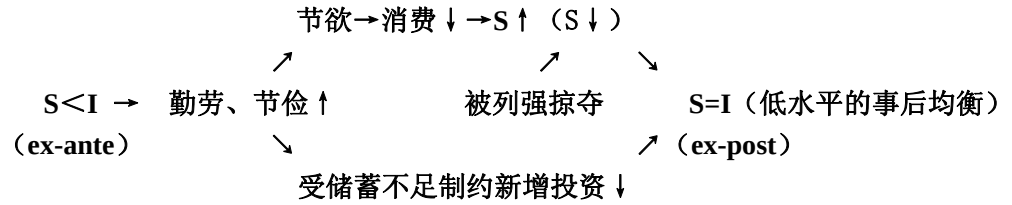

图 1　“供给约束型经济”从事前不均衡到事后均衡

我们进一步讨论一下供给约束型经济态势的经济学机理。从图 2 看，供给曲线 AS0 是典型的或极端的供给约束型经济（虽有一些新古典理论假设收入不变，但实际经济中应该少有这种极端现象），供给曲线与横轴垂直，在物价变动过程中，完全是总需求曲线从 AD1 运动到 AD3 的位置，导致价格由 P1 上升到 P3 的，总供给的作用是 0。我们认为，近代中

国的总供给曲线 AS1 虽不像 AS0 那样极端，但也是非常陡峭的，在总需求向上运动时，AS1 释放更多的产出比较艰难，因此缓解价格上涨的作用不大。

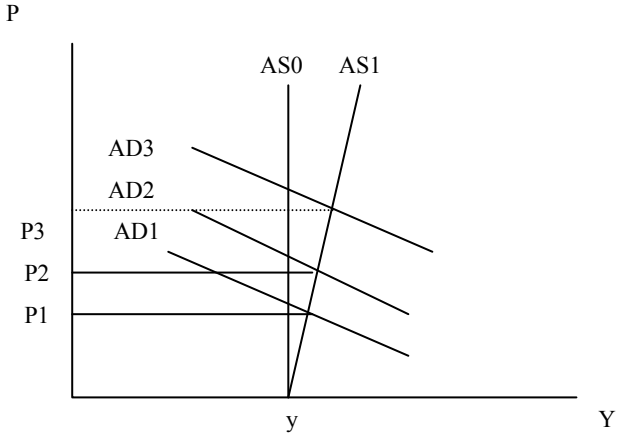

图 2　　供给约束型经济

根据上述逻辑，我们用 1913~1936 年中国的经济数据，对总供给、总需求和价格的关系做实证分析。

1.近代中国总供求理论函数

基于上面的逻辑分析，我们了建立近代总供求影响中国物价水平的理论模型，并且按照经济理论可以先验确定了变量的符号：

$$P = f(M_1, Y) \qquad (1)$$

$$\frac{\partial P}{\partial M_1} > 0 \quad \frac{\partial P}{\partial Y} < 0$$

P 表示批发物价总指数；Y 表示总供给，用 GDP 数据代表；M1 为狭义货币供应量，替代总需求。

2. 对近代中国总供求函数的实证

对理论模型的实证，要求对数据进行采样，用样本的回归结果来描述总体，因此首先要对所用变量的代表数据进行分析。根据上文设定的理论模型，我们采用的数据样本制成表 2。

表 2　　近代中国总供求数据

年份	M_1 百万元	Y 亿元	P 1913 年=100
1913	1976.7	178.09	100
1914	2016.1	163.39	106
1915	2014.0	166.10	118
1916	1973.2	160.75	118
1917	1935.9	143.97	122
1918	2031.0	143.51	123
1919	2203.9	180.88	121
1920	2468.3	183.02	131
1921	2571.2	191.31	132
1922	2743.1	213.43	130

1923	2913.1	211.45	137
1924	3090.0	236.58	133
1925	3364.7	226.87	146
1926	3616.6	238.63	149
1927	3764.8	248.58	157
1928	4098.9	257.11	156
1929	4560.5	266.26	162
1930	5101.8	276.21	178
1931	5012.0	285.7	190
1932	5000.4	294.7	170
1933	4776.0	294.6	152
1934	4185.0	269.0	145
1935	5050.0	290.9	150
1936	6607.8	309.4	175

资料来源：1.M_1 的数据见 Thomas G.Rawski, *Economic Growth in Prewar China*， University of California Press，Berkeley Los Angeles，Oxford，1989.pp394，其中 1933~1935 年数据见刘巍、郝雁《对罗斯基估算的 1910~1936 年中国货币供应量之检讨》，载于《广东外语外贸大学学报》2008 年第 3 期。2. P 的数据见王玉茹《近代中国价格结构研究》陕西人民出版社，1997 年版第 23 页，1913=100。3. Y 的数据见刘巍《对中国 1913~1926 年 GDP 的估算》，载于《中国社会经济史研究》2008 年第 3 期。

根据计量经济学的基本理论，实证分析之前要判定变量的平稳性，否则容易引起虚假回归。变量平稳性常用的检验方法是 ADF 检验，本文依据 ADF 单位根检验法的基本理论，结合检验形式、差分次数以及 DW 值大小，综合判断变量的单位根情况如表 3 所示。

表 3　　变量的 ADF 单位根检验结果

变量	差分次数	检验形式（c,t,k）	DW	ADF	1%	5%	结论
M1	1	(C,N,1)	2.00	-3.28	-3.73	-2.99	I(1)*
Y	1	(N,N,1)	2.09	-2.18	-2.74	-1.97	I(1)*
P	0	(C,t,1)	1.93	-4.08	-4.16	-3.50	I(0)*

*表示变量差分后的序列在 5%的显著水平上通过 ADF 平稳性检验。

上述变量的 ADF 单位根检验结果表明理论模型中涉及的变量 M1 和 Y 是一阶单整序列，P 是平稳序列。由于被解释变量是平稳序列，两个解释变量是同阶单整序列，根据协整理论，如果两个解释变量没有协整关系，则普通最小二乘法回归结果是伪回归（虚假回归）。因此回归之前要判断解释变量之间的协整性，有协整关系才可直接利用普通最小二乘法，否则需要另行处理，本文两个解释变量的 JJ 协整检验结果如表 4 所示。

表 4　　JJ 协整检验结果

特征根	似然比统计量	5%显著水平临界值	1%显著水平临界值	原假设
0.575	21.09	15.41	20.04	R＝0
0.099	2.28	3.76	6.65	R≤1

协整检验结果表明在 1%的显著水平上两个解释变量之间具有协整关系，因此按照计量

经济基本理论可以直接运用普通最小二乘法回归，假定模型为线性函数形式，回归结果如下：

$$P = 104.262 + 0.028M_1 - 0.252Y \qquad (2)$$

（6.69） （6.63） （-2.80）

$R^2 = 0.96$ D.W=2.05 F=145.6(0.00) JB=0.46(0.79) LM(1)=0.06(0.8) LM(2)=1.93(0.38) ARCH LM(1)=5.85E-05(0.99) ARCH LM(2)=0.36(0.84) White=1.45(0.84)

上述检验指标后面括号中的数字表示对应的伴随概率。残差正态性的JB统计检验接受正态性的原假设；模型自相关的D.W检验和LM检验表明模型不存在一阶和二阶自相关；异方差的ARCH LM与White检验表明模型不存在异方差；同时在样本容量内时间段的各年份Chow检验、Ramsey RESET检验表明不存在结构突变；判定系数达到0.96；方程整体显著性检验指标F检验表明拒绝系数全为零的原假设。上述整体检验结果表明模型回归符合计量经济学的基本假设，并且拟合效果很好。

3.对近代中国总供求态势的分析

在该模型中，我们需要弄清除各个解释变量的相对重要性，或者比较因变量对各个解释变量的敏感性，因此，就涉及到了 Beta 系数和变量的弹性问题。

我们首先来观察一下 Beta 系数。由于偏回归系数与变量的原有单位都有直接的联系，单位不同，彼此不能直接比较。为此，可以将偏回归系数转换为 Beta 系数，其公式如下：

$$\hat{\beta}_j^* = \hat{\beta}_j \frac{S_x}{S_y} = \hat{\beta}_j \sqrt{\frac{\sum (X_{ji} - \bar{X}_j)^2}{\sum (Y_i - \bar{Y})^2}} \qquad (j=1,2,\ldots,k;\ i=1,2,\ldots n) \qquad (3)$$

Beta 系数就是按照解释变量的标准差与因变量的标准差之比例对估计的斜率系数进行调整，其数值与测定变量时的单位无关，即是一个“纯数”，因此可以直接比较，用以确定计量模型中解释变量的相对重要性。

这样，按照 Beta 系数公式，计算的解释变量对被解释变量的重要性结果如下：

Beta(Y)=-0.4859 Beta(M1)=1.2748

如果将 Beta(Y)标准化为 1，则 Beta(M1)为 2.6。Beta 系数表明了各个变量对于被解释变量的解释程度和重要性，M1 对 P 的贡献度是 Y 对 P 贡献度的 2.6 倍多。在图 2 中，M1 的 Beta 系数就是 AD 推动价格向上运动的力度，Y 的 Beta 系数就 AS 向下压迫 P 的力度。

至此，我们证实了前面的逻辑，供给本身在该时段经济发展过程中对价格所起作用较小，即从国内经济角度证实了近代中国属于供给约束型经济态势。接下来，我们再从国外部门的角度对此进行一些考察和讨论。

二、从贸易条件角度分析

贸易条件概念最初的含义只是进、出口之间的比价，所谓贸易条件的恶化或改善最初也只是进、出口价格指数的相对上升或下降，即价格贸易条件。在以后的贸易实践中，贸易条件的改善或恶化，成了评价一国国际贸易绩效的重要考量指标，中国自改革开放之后也是如此。《中国统计年鉴》逐期公布中国的价格贸易条件数据，官方数据无疑对业界和学界起导向作用，见诸各种媒体的一些著名学者的观点也说明我国学界是非常重视贸易条件的。但是，许多研究表明，用该指标核算，各国的国际贸易绩效都是很差的。根据 Imlah（1950） 和 Schlote（1938）等人的计算，英国自 19 世纪初开始到 20 世纪 30 年代为止，其价格贸易条

件一直呈现出恶化趋势，但持续的价格贸易条件恶化并没有给英国的国民福利带来什么负面影响。在日本历史上也存在类似情况，日本学者南亮进（1989）分析指出，在 20 世纪初期的二十多年中，日本的贸易条件是下降的，但出口竞争力增强，在国际市场的出口占有率迅速上升。赵玉敏等（2002）通过计算发现 1993~2000 年间中国价格贸易条件下降了 13%。武海峰和牛勇平（2004）选取 30 种代表性商品计算，得到我国 1985-2002 年间的价格贸易条件不断下降的结论。联合国贸发会议的一份研究显示（UNCTAD, 2002）,中国在 1993~2002 年间价格贸易条件下降了 10%以上，而这一下降在与发达国家的贸易中比与发展中国家的贸易还严重。如果遵循普雷维什（1949）的“贸易条件恶化论”和巴格瓦蒂（1958）的“贫困化增长”理论展望，国际贸易无疑将引导世界经济陷入万劫不复的深渊。

众所周知，第一次世界大战之后，世界经济突飞猛进，各国人均 GDP 和 GDP 总量的增长势头是前所未有的。改革开放之后的中国发展更快，持续的贸易顺差，持续的外汇储备增加，国际收支不断改善，人民生活水平不断提高。贸易条件理论与需求约束型经济态势下的经济实践有冲突是显而易见的。

为了解决这一问题，各家学者纷纷撰文。张文朗（1998）认为，各种不确定因素导致了贸易条件的不确定性，贸易条件的不确定性会降低贸易得益。张二震、马野青、方勇等（2004）认为，传统贸易条件理论赖以存在的基本前提是国际间要素不能流动，因此可以存在独立的贸易利益和确定的贸易利益主体，贸易条件可以反映各国在贸易利益分配中的地位。但是在贸易投资一体化条件下，传统的贸易条件理论存在着很大的局限。赖寒（2003）认为，在 FDI 参与的情形下，用“属地”概念反映一个“属人”概念存在一定的困难。

我们认为，上述学者的研究基本上没有触及问题的要害。而问题的要害在于，穆勒的贸易条件学说其实暗含着“供给约束型经济”这一假设。即使穆勒时代没有这个词，也有萨伊的“供给自动创造需求”思想存在了。恐怕也只有在此前提下，方可以此学说考量贸易绩效。不管穆勒时代（或之前）供给“瓶颈”在哪个层面上，只要是供给约束成立，供给曲线陡峭、或与横轴垂直，供给量就与价格关系不大或无关了。于是，当供给量一定时，提高贸易利润率的途径只有提高价格。假定贸易双方都是供给约束型的国家，于是，两个价格之比绝对就是利益之比了。如果进出口价格指数能大略算出来的话，贸易条件与贸易收支的走势应该是相同的或正相关的。难怪，国际贸易学早期理论常用的案例都是靠天吃饭的农业和畜牧业及这两个产业附属的加工行业——小麦、葡萄酒和呢绒。这些产业不用说都是供给约束型的，由于经济关系简单、便于分析，直到现在，国际贸易学教科书依然沿用这些案例。

进一步地，我们换个角度，对现实中的反倾销现象来做一点探讨。倾销、反倾销是国际贸易发展的产物，1904 年，加拿大首先立法对倾销加以制裁，其后，澳大利亚、美国、日本、新西兰、法国和英国等相继立法，现今已知有反倾销法的国家有近百个，反倾销法的历史已有一百多年。倾销是在外国市场上的低价销售行为。对于倾销国来说，出口价格降低，则贸易条件恶化，倾销就变成了一种自愿恶化贸易条件的行为，为了贸易伙伴（进口国）的贸易条件改善而进行生产销售。再说进口国，当遭遇倾销时，他们的第一反应是反倾销，事实上，一方面进口国的贸易条件得到了改善，另一反面却通过复杂的反倾销程序极力地拒绝这种改善。贸易条件理论在此必然推出荒谬的结论：一边是出口国奋不顾身地自愿恶化贸易条件，另一边是进口国宁撕破脸也不愿接受贸易条件的改善，双方还要通过复杂的倾销、反倾销博弈以示决心。用穆勒的价格贸易条件考量，当代国际社会交易双方这种行为是既愚蠢又多余的。问题当然不是这样荒诞不经。理论与实践不符，只能说明理论本身的逻辑出了问题或理论应用的前提发生了质变。穆勒是一位令人尊重的经济学家，犯逻辑错误的可能性不大，较大的可能是社会经济背景变化到了与穆勒模型的前提假设相反的地步。

倾销最早可以追溯到重商主义时期，已有几百年的历史，而反倾销法的出现却是在 1904 年，距今也只有百年，而被国际社会严重关注则是近十几年的事情。当年的星星之火缘何到

如今才成燎原之势，其原因是多方面的。该行为本身的因素暂不探讨，我们从倾销、反倾销赖以茁壮成长的经济条件着手，做一简单分析。我们知道实施倾销行为的前提是要有足够多的产品，在几百年前，社会生产力不发达，社会产品有限，这样的供给约束型经济体决定了倾销在其成长过程中的营养不良命运，供给约束型经济体是倾销不成规模的根本原因。在供给约束型经济体中，整体社会生产力不发达，但局部生产力水平较高是正常的，这时出现偶然性的倾销是合情合理的。所以，供给约束型经济可以用来解释为什么倾销在几百年前出现却不能成规模。同时，贸易条件在需求约束型经济前提下是荒诞的这一事实，也可以提示我们，贸易条件在供给约束型经济中也许是考量国际贸易绩效的重要工具。

从前面引用的文献来看，在当代经济中，需求约束型经济态势下，贸易条件与贸易收支大都是负相关的，即贸易条件恶化了，贸易收支却改善了。由于资料限制，找到欧美国家 19 世纪的贸易条件数据很不容易，难于从实证角度说明贸易条件在当年西方国家供给约束型经济态势下的适用性。所幸的是，当年南开大学的专家们做出了中国 1867~1936 年的贸易条件指数，在《南开指数年刊》上叫做“交易率”，是用进口价格指数比出口价格指数，即贸易条件的倒数。如果近代中国 70 年的数据能够告诉我们，贸易条件的改善（恶化）与贸易收支的改善（恶化）是同步的，那么，结合前面我们从总供求与价格角度的分析，就更进一步验证了近代中国处于供给约束型经济态势中。

用《南开指数年刊》的数据，我们做 50 年的数量分析。首先，我们将实证所需数据整理如下：

表 5　　中国对外贸易数据

年份	交易率指数	贸易差额	进口净值（1000 关两）	出口净值（1000 关两）	进口物价指数	出口物价指数
	a=e/f	b=d-c	c	d	e	f
1887	83.0	-16404.00	102264	85860	46.9	45.1
1888	83.2	-32382.00	124783	92401	46.9	51.7
1889	83.1	-13896.00	110844	96948	47.9	47.8
1890	79.0	-39949.00	127093	87144	46.7	46.1
1891	74.0	-33056.00	134004	100948	47.4	47.2
1892	77.0	-32517.00	135101	102584	45.8	48.7
1893	88.0	-34740.00	151363	116623	46.3	49.6
1894	118.9	-33998.00	162103	128105	38.5	45.9
1895	123.6	-28404.00	171697	143293	35.3	40.6
1896	116.3	-71509.00	202590	131081	33.8	47.1
1897	108.6	-39328.00	202829	163501	35.5	40.8
1898	115.4	-50542.00	209579	159037	35.7	40.2
1899	86.2	-68963.00	264748	195785	35.2	41.3
1900	103.7	-52073.00	211070	158997	38.3	41.1
1901	106.7	-98646.00	268303	169657	39.6	40.5
1902	95.5	-101182.0	315364	214182	37.6	36.2
1903	99.2	-112387.0	326739	214352	37.1	36.8
1904	94.1	-104574.0	344061	239487	37.1	32.9
1905	89.8	-219213.0	447101	227888	37.1	33.9
1906	83.2	-173813.0	410270	236457	43.3	35.3

1907	84.3	-152020.0	416401	264381	43.0	51.8
1908	101.4	-117845.0	394505	276660	43.6	52.4
1909	105.1	-79165.00	418158	338993	44.3	53.3
1910	111.7	-82132.00	462965	380833	40.7	51.5
1911	111.7	-94166.00	471504	377338	38.7	52.3
1912	112.9	-102559.0	473079	370520	39.6	51.4
1913	100.0	-166857.0	570163	403306	44.7	50.8
1914	103.3	-213014.0	569241	356227	62.8	52.8
1915	104.8	-35615.00	454476	418861	66.1	53.5
1916	104.6	-34610.00	516407	481797	67.1	57.7
1917	123.4	-86587.00	549519	462932	71.8	66.1
1918	128.4	-69010.00	554893	485883	71.9	62.3
1919	134.1	-16189.00	646998	630809	67.2	78.0
1920	155.6	-247618.0	762250	514632	74.8	72.1
1921	142.3	-304866.0	906122	601256	75.3	70.6
1922	117.7	-290158.0	945050	654892	78.0	81.7
1923	109.1	-170486.0	923403	752917	88.3	89.0
1924	105.4	-246427.0	1018211	771784	87.2	92.7
1925	103.5	-171512.0	947865	776353	81.2	90.4
1926	98.6	-259926.0	1124221	864295	75.4	90.6
1927	108.6	-94012.00	1012932	918920	82.3	97.6
1928	100.4	-204614.0	1195969	991355	95.4	94.1
1929	93.1	-250092.0	1265779	1015687	95.1	90.5
1930	102.5	-414912.0	1309756	894844	102.5	91.8
1931	116.0	-524013.0	1433489	909476	102.2	91.5
1932	128.6	-557605.0	1049246	491641	100.0	88.6
1933	142.7	-470949.0	863650	392701	100.0	100.0
1934	136.1	-317362.0	660889	343527	108.9	105.4
1935	122.9	-220412.0	589994	369582	113.0	107.8
1936	109.4	-151350.0	604329	452979	122.4	117.0

资料来源：交易率指数见南开大学经济研究所《南开指数年刊》1937 年，第 37-38 页。其余数据根据中国海关贸易统计计算而得，1932 年 6 月之后的数据不包括东北的贸易统计数据，转引自郑友揆：《中国的对外贸易和工业发展（1940~1948）》，上海社会科学出版社 1984 年版，第 344~337 页。

表 5 中第二列中，“交易率”数据是南开大学经济研究所当年统计的一个考量中国进出口利益的指标，从栏目说明可以看出，它是进口物价指数除以出口物价指数的商之指数。这个统计量说明，和出口商品比较，进口商品越贵，交易率指数越高；而进口商品越贵，中国的贸易差额越小，即贸易收支恶化。相反，交易率指数越低，中国的贸易差额越大（或逆差越小），即贸易条件改善。由于统计量的设置不同，这一逻辑和穆勒的贸易条件之改善、恶化概念正好相反。于是，用南开大学的交易率统计量来分析，交易率与贸易收支负相关时，说明贸易条件成立，反之则反是。

我们用表 5 的数据所做的相关分析结论是，交易率与贸易差额的相关系数等于-0.41。负相关的趋势成立，但相关系数不高。我们认为，这是由于在近代中国 50 年间，贸易伙伴

国陆陆续续地过渡到了需求约束型经济所致。在穆勒的贸易条件学说中，贸易双方都处于供给约束型经济态势下，闲置的产能都不大，价格呼唤产出的可能性都很小。而在两世纪之交，英国、美国都已发展到了需求约束型经济时代，对中国的进出口会有微妙的影响。这个问题比较复杂，我们拟另组专文讨论。

在计算了相关系数之后，我们再用回归方程考察一下两个变量之间的数量关系。变量的平稳性检验情况如表 6 所示。

表 6　　变量的 ADF 单位根检验结果

变量	差分次数	检验形式（c,t,k）	DW	ADF	1%	5%	结论
TB	1	(N,N,1)	1.94	-4.17	-2.62	-1.95	I(1)*
TT	1	(N,N,1)	1.98	-4.56	-2.61	-1.95	I(1)*

*表示变量差分后的序列在 1%的显著水平上通过 ADF 平稳性检验。

上述变量的 ADF 单位根检验结果表明理论模型中涉及的变量 TB（贸易差额）和 TT（贸易条件）是一阶单整序列。两个变量的协整检验结果如表 8 所示。

表 7　　协整检验结果

特征根	迹统计量（P值）	5%临界值	$\lambda-\max$ 统计量（P值）	5%临界值	原假设
0.37	31.59（0.01）*	25.87	21.32（0.03）*	19.39	0 个协整向量
0.20	10.27（0.12）	12.52	10.27（0.12）	12.52	至少 1 个协整向量

*表明在 5%的显著水平下拒绝原假设，P 值为伴随概率。

协整检验结果表明在 5%的显著水平上两个变量之间具有协整关系，因此按照计量经济基本理论可以直接运用普通最小二乘法回归，假定模型为线性函数形式，回归结果如下：

$$TB = -1405.91TT \qquad (4)$$

$$R^2 = 0.70 \quad s = 447.24 \quad t = -3.14 \quad DW = 1.86 \quad F = 109.32$$

用最小二乘法回归的结果表明，交易率指数变动一个单位，贸易收支就反向变动 1.4 亿海关两左右。说明了“贸易条件改善则贸易收支改善”的逻辑关系。

实证分析的结果表明，1887~1936 年平均来看，中国的贸易条件指数改善（交易率指数下降）一个单位，中国的贸易收支就改善（逆差减少）1.4 亿海关两左右。这一事实佐证了近代中国经济态势是供给约束型。

三、从马歇尔—勒纳条件角度分析

近年来，随着贸易条件与经济发展现实矛盾显现，学界开始修正价格贸易条件，[①]出现了收入贸易条件。收入贸易条件试图将一国以出口为基础的进口商品的能力数量化，而不仅仅体现出口与进口之间的价格关系。其值为价格贸易条件与出口量指数的乘积，即：

[①]其实，在需求约束型经济态势下，贸易条件学说应该放弃了。但是，国际贸易学界非但不放弃，而且有许多学者参与修正这一过时的学说。

$$ITT = NBTT \times Qx \qquad (5)$$

式（5）中，Qx为出口量指数。我们不清楚收入贸易条件为何假定进口量指数不变，这种逻辑在国际贸易现实中是绝对行不通的。如果借用双要素贸易条件[①]的思路，加入进口量指数，逻辑上还可以是通顺的。收入贸易条件与价格贸易条件最本质的区别在于，供给瓶颈消除了，出口贸易量是可变的，提高贸易利润的途径不再单一，扩大贸易量，薄利多销也不失为正确的贸易思路了。贸易量一旦可以变动，价格贸易条件与收入贸易条件便同室操戈了，往往是价格贸易条件恶化而收入贸易条件改善。不仅前面提到过的英国和日本是这样，而且中国的情况也是如此。曾铮、胡小环（ 2005）测算了我国 1980~2001 年的价格贸易条件和收入贸易条件，结果发现我国价格贸易条件呈现恶化趋势，但收入贸易条件显著改善。林丽、张素芳（2005）测算了我国 1994~2002 年的价格贸易条件、收入贸易条件，发现价格贸易条件明显恶化，而收入贸易条件是上升的。

其实，收入贸易条件事实上是在考量贸易收支，但由于测算公式中缺少进口量指数，因此，对贸易收支的测度也是含混的。在此方面分析比较到位的是马勒条件，而不是这种收入贸易条件。马歇尔首先提出国际收支调节弹性理论，勒纳在马歇尔的弹性理论基础之上得出马歇尔－勒纳条件。之后，罗宾逊夫人做了大量工作，对其进行了修正。它主要被用来考量一国货币的贬值与该国贸易收支改善程度的关系。

众所周知，对一国来说，货币一旦贬值，在贸易品本币价格不变时，会造成出口商品外币价格的整体下降或是进口商品本币价格的整体上升，无论用哪种货币计算，价格贸易条件必将恶化。马勒条件实际上考察的是，政府行为导致的价格贸易条件主动“恶化”之后，会不会产生“双”收入贸易条件（出口量和进口量的变化同时考虑）的“改善”。剑桥大学的经济学家们为什么会考虑主动“恶化”价格贸易条件呢？问题在于，国际贸易的评价原则主要是考量总体获利程度，获利是目的，价格是手段而已。马歇尔、勒纳和罗宾逊夫人之所以做这样的分析，是因为多数西方国家的经济态势和穆勒时代相比，发生了实质性的变化，即产量是可以大幅增加的。在低价格的诱惑下，出口量是可以增长的，生产一端没有问题。此时的供给曲线是向右上方倾斜的，从理论上说，厂商可以满足任何数量的有效需求。在马勒条件的众多假设中，四个供给弹性均为无穷大是很重要的，这基本上说明，新古典主义者们的分析框架是在“需求约束型经济”假设之下建立的。因此，降价刺激国外需求，薄利多销，进而在贸易收支差额上获利是新古典主义者们的理性选择。在一系列假设下，马勒条件推导出了价格贸易条件主动“恶化”可以改善总体贸易收支的基本条件：

$$Ex + Em > 1 \qquad (6)$$

式（6）中，Ex表示对出口品需求的价格弹性， Em表示对进口品需求的价格弹性，如

[①]要素贸易条件分为单要素贸易条件(Single Factoral Terms of Trade, SFTT)和双要素贸易条件(Double Factoral Terms of Trade, DFTT)。单要素贸易条件把进口价格的变化与生产要素的劳动生产率的提高联系起来。SFTT 是用商品价格贸易条件乘以出口行业的劳动生产率指数而得，即：$SFTT = NBTT \times Ox$ 其中 Ox 是生产率指数。双要素贸易条件则把一国的贸易伙伴国的劳动生产率的走势也纳入单要素贸易条件中。因此，双要素贸易条件是用单要素贸易条件除以贸易伙伴国出口行业的劳动生产率指数而得，即：$DFTT = (\frac{Px}{Pm})(\frac{Ox}{Om})$ 其中 Om,指外国生产本国进口品行业的劳动生产率指数。这种贸易条件看似科学，但基本失去了可操作性，本文不予讨论。

果一国的经济条件满足式（6），本币贬值将改善贸易收支。[①]

根据罗宾逊夫人的推理，我们可以得出以下结论：

（Ⅰ）当 Ex + Em > 1 时，有 $\frac{dB}{dP}$<0 。贸易收支变动与间接标价法的汇率变动呈反向关系，即币值越低顺差越大（或逆差越小）。

（Ⅱ）当 Ex + Em < 1 时，有 $\frac{dB}{dP}$>0 。贸易收支变动与间接标价法的汇率变动呈同向关系，即币值越低顺差越小（或逆差越大）。

这里我们没有讨论 Ex + Em = 1 的情况，是因为在现实经济体中这种情况发生的概率几乎为零，即使发生也是不稳定的，Ex + Em = 1 不是现实经济体的常态。

结论（Ⅰ）表明，Ex + Em>1，意味着需求是富于弹性的，同时，罗宾逊夫人的模型假设供给弹性是无穷大，则此时的经济体是需求约束型经济。我们套用一下萨伊定律的句式来描述就是，需求可以自动创造供给。在需求约束型经济体中贸易收支变动与本币币值变动呈反向关系，即本币贬值可以改善贸易收支，马勒条件成立。换句话说，马勒条件在需求约束型经济体中是适用的。

结论（Ⅱ）表明，当 Ex + Em < 1 时，意味着需求是缺乏弹性的，即价格对需求量的刺激能力太弱。国外需求量（出口量）增加产生的利益不能抵补价格下降造成的损失，国内需求量（进口量）下降节省的开支不足以抵补价格上升造成的开销增加。这种情况从表面上看，似乎是需求的问题，其实，这无疑是供给方面有较大的问题。首先，在出口外币价格下降时，国外需求不能有效增加，说明供给方面无力调整出口商品结构或商品品质，存在着较大的供给瓶颈，供给弹性无穷大是一句空话。其次，进口品本币价格上升时，国内替代产品的产量上不来或根本没有，更是与供给弹性无穷大无缘。这说明，当条件 Ex + Em < 1 时，该国经济是供给约束型的，货币适度升值可以改善他的贸易收支。

1935 年之前，近代中国的货币一直使用银币，政府一般也不干预货币，中外汇率听凭金银比价自由波动。我们判断中国经济属供给约束型还是需求约束型时，可以从马歇尔－勒纳条件角度切入：如果近代中国的 $E_X + E_M$ ＞1，则本币贬值导致的本国商品相对降价可以改善贸易收支，近代中国经济大体上应属需求约束型；如果近代中国的 $E_X + E_M$ ＜1，本币贬值导致的本国商品相对降价使贸易收支恶化，则近代中国经济大体上应属供给约束型。

接下来，只需要用近代中国的贸易和汇率数据做一数量分析，便可见分晓。我们曾撰文讨论过 20 世纪 30 年代之前的中国进口模型，算得 E_M =0.27，郝雁博士对近代中国出口问题研究的结论是 E_X = －0.34[②]（两个弹性都是按间接标价法数据计算）。即：

$$E_X + E_M = |-0.34| + 0.27 = 0.61 < 1 \qquad (7)$$

两个弹性绝对值相加远小于 1，基本上可以认定中国经济的供给约束性质。

四、结论与启示

综上所述，我们认为，近代中国的基本经济态势是供给约束型的，即，经济增长的瓶

[①]马勒条件后来经多次修正和补充，有比较复杂精密的形式。从分析方便起见，本文采用马勒条件初始的形式，用其他形式做分析（如马勒梅条件）没有实质性区别，与本文主题相关度不大。

[②]刘巍：《对中国 1913～1926 年 GDP 的估算》，《中国社会经济史研究》2008 年第 3 期；郝雁：《近代中国出口贸易变动及其对经济商品化影响的实证分析》，《中国社会经济史研究》2007 年第 2 期。

颈在于供给，供给的瓶颈在于投资，投资的瓶颈在于储蓄。因此，用凯恩斯主义的需求管理理论框架解释近代中国的经济运行基本上是无效的，甚至得出的结论是错误的。例如，我们在最近发表的一篇研究大萧条的论文中发现，[①]“货币政策刹车有效启动失灵”这一逻辑只适用于需求约束型经济（大萧条时期的美国），即“你可以用绳子拉车却不可以用绳子推车”；而在供给约束型经济中（大萧条时期的中国），货币政策刹车和启动同样有效，即中国的绳子“既能拉车又能推车”，新古典经济学的理论是适用的。

近年来，中国经济史学界在研究理念和研究方法上有了重大进步，但坦率地说，滥用理论框架的情况不乏其例。本文的研究结论首先使我们自己汗颜，2004 年我们曾发表了一篇讨论近代中国宏观经济运行的论文，[②]文中的基本逻辑框架是希克斯—汉森模型，该模型是典型的需求约束型经济前提。因此，该文的问题较大，我们会尽快在供给约束型经济前提下重新研究这一问题。前面提到的美国学者埃德温·查理特别重视前提建设与逻辑分析的关系，但是，在他的著作《发展中国家宏观经济学》一书中，却没有对发展中国家的前提假设做任何讨论，直接用IS—LM模型分析发展中国家的宏观经济运行。该书的英文版于 1983 年出版，试想，在 20 世纪 70 年代及以前，典型的和大多数的发展中国家能处于需求约束型经济态势下吗？储蓄不足和有限的储蓄难以向投资转化一直是发展经济学研究的重大问题，典型的和大多数的发展中国家一定是供给约束型经济态势下。因此，我们认为，埃德温·查理教授（1990）的分析照搬了发达经济学需求约束型经济前提下的模型，也是有问题的。在这方面犯同类错误的国内同行的研究文献也是不少的，碍于情面，不一一点评，读者自会发现其中的问题，我们只能检讨自己和对远在大洋彼岸的美国人质疑而已。

近代中国的宏观经济运行大前提是供给约束态势的，但是，并不是说任何一个部门都不是需求约束型经济态势的。这如同今天的中国经济一样，虽然总体上进入了需求约束型经济态势，但并不意味着不存在供给约束型的部门和行业。我们希望，今后学界在研究近代中国经济史的任何一个领域时，认真讨论其前提，从前提推出结论。

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（直接引文出处见脚注，恕不再列出）

Under-saving and Economy with Supply Constraints: A Research on Basic Premise of Economy Operation in Modern China

Abstract：Multi-angled studies show that the strength of drawing price high by aggregate demand is more powerful than that of pushing price down in modern china, but the effect which increases output is weak. an appreciation of home currency can promote the trade balance and theory of terms of trade can also be proved. The absolute value of elasticity of import and export exchange rate is far less than 1, and Marshall–Lerner condition does not hold. In such a circumstance, China modern economy is a supply-constrained one, and its AS Curve is supposed to be steep. Considering this, when analyzing modern china economy, we need to study whether the theoretic premise is consistent with real economic situation in modern China or not, in order to avoid making mistakes.

Key Words: Supply Constrained, General Supply and General Demand, Terms of Trade，Marshall-Lerner Condition, Basic Premise

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《近代中国货币供给机制：历史、逻辑与实证》之序

王玉茹

编者按：刘巍教授的专著《近代中国的货币供给机制：历史、逻辑与实证》即将由高等教育出版社出版，这是一部计量经济史学的专著，该书对近代中国 1910～1936 年的货币供给决定机制做了逻辑分析和实证分析。分析结果表明，近代中国的货币量是银价变动导致的白银国际流动和国内金融机构的货币创造力度决定的。根据近代中国货币供给过程的特点和货币理论的逻辑，该书认为，1935 年之前中国的货币供给是“不可控外生变量”。 这种货币决定机制的基本含义是：对于一国来说，货币量变动的决定因素来自境外，而且政府无力控制，金融部门、实际部门无可奈何，市场信号、货币需求、产量等经济变量均是货币量的函数，对宏观经济运行的危害极大。法币改革之后，和平时期短暂，1935 年底货币改革，1937 年全面抗战爆发，直至其在大陆退出流通，都是在战乱岁月中。因此，尚难对其供给机制的性质下结论。中国经济史学界的领军人物之一王玉茹教授为该书做了序言，通过序言，学界同仁可以了解这本专著的主要内容。

19 世纪中叶到 20 世纪中叶的 100 年，是中国社会发生巨变的时期，中国历史上的任何一个时期都不可与之比肩。在这一巨变时期，中国经济结构开始了由传统经济向现代经济过渡的过程。然而，中国的现代化起步却不是情愿的，是被迫的。因此，这一过渡过程既是振奋的，又是痛苦的；既是突变的，又是缓慢的。在我们这些后辈子孙的历史包袱中，既有光荣，也有耻辱；既有经验，也有教训。时至今日，举目望之，或见高楼大厦鳞次栉比，或见低矮草屋摇摇欲坠。瞑目思之，或对这 100 年津津乐道，或对这 100 年耿耿于怀。经济的二元结构、社会的二元结构导致了思想的二元结构、身份的二元结构，甚至人格的二元结构……一切变革、一切矛盾、一切进步、一切颓废，无不源于那个苦辣酸甜的 100 年。

时间的车轮又隆隆驶过了半个多世纪，在这半个多世纪的前期，对 100 年经济结构巨变的研究受制于政治运动、偏激的思想和落后的方法而不尽如人意[①]。改革开放以来，经济史学界的研究禁区和研究教条逐步化为乌有，研究局面的兴旺几乎到达了中华人民共和国以来的顶峰。但是，毋庸讳言，目前存在的一个坚固的研究“瓶颈”是经济史研究理论框架和研究方法的落后。我们认为，经济史研究应该包括资料建设（数据和事件）、经验教训分析和经济学理论的修正与丰富等几个部分。中外经济史是人类经济活动丰富的实验报告，记载着人类经济活动——尤其是市场经济以来——的经验和教训，我们首先要把遗失、散落和残缺的实验报告整理、补充和推算出来，然后才有研究经验教训的可能。当前中国改革进程中遇到的种种困惑，大都在经济史上曾经发生过，历史虽不能重演，但有时又是何其相似！譬如，近年来中国的净出口占GDP比例、外汇储备、投资增长、楼市、股市等问题，尤其是当前的世界金融危机问题，令政府管理层和学界担忧。这种担忧有无道理？继续下去的后果是什么？发达国家在历史上是如何解决这些问题的？经济不同于物理、化学，无法用实验室方法来确定真伪和选择调控手段，只能从世界经济发展史中寻找答案。英国在重商主义理念支配下净出口高企不下过，战后德国和日本的外汇储备曾连续多年盆满钵溢，投资快速增长是众多新兴市场经济国家都走过的老路，楼市和股市的问题在美国和日本都反复出现过。这一切

[①] 隔行如隔山，我们对其他领域的研究情况一无所知，但愿能比经济史的研究乐观一些。

是否对他们的经济发展造成了负面影响？如果有负面影响，他们是如何解决的？回溯世界经济发展上的经验教训，我们的研究目的是对这些问题给出具有历史厚度的参考答案，经济史研究是和经济现实问题紧密联系着的。当然，世界经济发展史上的各个阶段，宏观经济运行环境多有不同，我们不能照搬照抄经验教训，而是在历史证明正确的经济模型的基础上，根据中国的现实，修正前提假设、增减模型中的变量，得出适用于中国经济建设的政策建议。经济史属于理论经济学科，我们的研究工作不仅着眼应用意义，而且还要理论盯住经济学理论逻辑的丰富和发展。在这方面，美国经济学家道格拉斯·诺斯做出了辉煌的成就，是后辈学人的楷模。

用经济学方法研究经济史，势必要求经济史有基本可以满足研究需要的“基础设施”——经济统计（估计）数据和相关资料。审视当前我国近代经济史研究现状，恕我直言，由于政治取向不同造成的选材视角限制、学科知识结构瓶颈的制约造成的能够驾驭的研究方法的欠缺，即使花大气力建设的资料也不能够满足研究的需要，紧缺的资料依然紧缺。我们不妨虚拟两个实验。

实验 1：让一个军事院校军事学资深教授率领的研究团队研究二战史，同时让本人率领的另一个团队也研究二战史，两家收集、整理和推测的资料应该是有很大差别的。原因在于，前者头脑中的军事理论根深蒂固，研究框架几经锤炼日臻成熟，需要何种资料，如数家珍。而我收集、整理的资料集与前者资料集的交集不会很大，原因自不待言。

实验 2：让一个美术学院的资深教授领导一个团队研究 1840 年以来中国油画的发展历程，让刘巍也率团研究同一课题。显然，这两个团队收集、整理的资料之差异要显著大于实验 1.

如果让两个实验继续下去，两个团队得出的结论就不知相差多远了！旁观者也许会说，这两个实验选择的领域太专业了，所受的训练不同嘛。

对，问题就在这儿！同理，经济史也是专业性很强的领域，它应该是应用经济学的理论框架和分析方法去研究既往的经济运行，无论是总量还是结构、无论是宏观还是微观。如果在经济史研究中期望得出满意的结论，研究者必须受过较好的经济学训练。我国老一代经济史家——如，严中平、许涤新、吴承明、刘佛丁等先生——扎实的经济学和历史学功底，使他们有上乘的研究成果。在目前国内研究经济史的同行中，年龄大一些的，多数人由于历史的原因，难以补上数理的和数量的分析框架和方法这一课了，情有可原。我呼吁年轻的同行不可蹉跎，补上这一课。我相信，经过努力之后，在你面前会打开一扇新窗子，你就可以和窗外的同行对话，窗外的世界很精彩。

在中国，经济学家很少涉足经济史研究的一个重要原因是，研究中必需的数据在历史文献中没有记载、无人做长时序的估算。例如，百年中国的经济发展历程，有 GDP 估计数据的只有断断续续十来年；国内资料中，货币供应量的数据根本就没有，能用的资料是美国学者罗斯基估算的；人口数据更是众说纷纭，一团乱麻，令研究者无所适从。经济学家的缺位，使得经济史的研究难成正果。这如同研究战争史的不懂军事学、研究美术史的不懂艺术一样，研究者往往囿于自身的知识结构主观臆断、妄加评论，有时可能贻笑大方。20 世纪 60 年代，在美国兴起了新经济史学派（即计量经济史学派），苏联随后也出现了热衷于计量经济史研究的一批学者。他们遵循经济学理论和范式的要求，从经济学分析的基本逻辑框架出发，发掘和整理既往市场经济运行中的重要变量之统计量数据。对不可能存于文献的关键数据，新经济史学者则根据经济学原理已经反复证明的函数关系，利用已知的数据，以计量经济学的方法推算出来，从而开辟了经济史中过去无法进行研究的新领域。同时，对过去以点代面形成的定性判断进行科学的检验，证实正确的论断，证伪错误的观点，使经济史研究的科学性大大提高。美国新经济史学派对 19 世纪美国国民收入、劳动力数量、农业劳动生产率、铁路运输效率等数据的估算被认为是他们最卓越的贡献。

著名的发展经济学家、诺贝尔经济学奖获得者西蒙·库兹涅茨在进行较长期（40-50 年）经济发展的比较研究时发现，后发展的国家没有系统的经济历史统计，于是他说服洛克菲勒财团资助设立了 UDP（University Development Program），旨在培养后发展国家的经济统计学者，然后回到自己的所在国家进行历史经济统计资料的整理和推算工作，这项工作是从日本开始的。日本一桥大学的优秀经济学家大川一司带领的学术团队，最先实现了库兹涅茨的梦想。从 20 世纪 50 年代后期开始，一桥大学经济研究所的学者利用近 30 年的时间完成并出版了由国民所得、劳动力、资本存量、资本形成、储蓄与通货、个人消费、财政支出、物价、农林业、矿工业、铁道与电力、地域经济统计、贸易与国际收支等 14 卷组成的《日本长期经济统计》。同时出版了一批研究日本经济发展的专著，培养了一批学者。第一卷《国民所得》是根据日本历史上的税收统计资料将日本的国民收入倒推至 1878 年。他的研究经过反复检验，被世界各国研究日本经济发展的学者认同。1995 年著名经济史学家尾高煌之助教授带领的日本一桥大学经济研究所的学术团队获得日本文部省重点项目资助，开始《亚洲历史统计》研究项目的工作，以日本一桥大学经济研究的学者为核心，吸收一些其他国家研究亚洲经济史的学者参加，本人有幸在 1998 年作为中国大陆唯一的经济史学者加入了这个学术团队，承担一部分该项目的研究工作。勿庸讳言，中国经济史学界在这方面成果不多，尚处起步阶段。2008 年 9 月本人应邀出席在纽黑文召开的美国经济史学会年会，见到在耶鲁大学任教的老朋友陈志武教授，交谈中得知陈志武教授正率队研究中国 1700 年以来的利率，甚为欣喜。盼望早日杀青，以飨学界。

刘巍教授是我的师弟，1995 年考入南开大学经济研究所，师从刘佛丁先生。刘巍原本是历史学学士和硕士，而且 9 年初等教育（小学 5 年，初中 2 年，高中 2 年）全在“文革”中度过，整天“宣传毛泽东思想”、“学工、学农、学军和批判资产阶级”，根本没有学多少知识。据他自己回忆，念小学时确确实实学过加法、减法和乘法，除法没有学过。后来什么时候会的除法呢？实在想不起来了。幸亏刚刚恢复高考的头几年文科考生的数学是参考分或按较大百分比折扣算分，否则，他可能与大学无缘了。考进南开读博士时他 35 岁，虽然经济学功底较差、数学功底极差，但优势在于饱读史书和是个朝气蓬勃的年轻人。于是，刘佛丁先生给他施加了“强大的压力”，“勒令”他必须突破数学这一关，学会数理的、数量的分析方法。据刘先生在世时讲，他这样要求刘巍的根据有二：第一，刘巍当过知青、士兵和工人，是个经历坎坷的东北大汉，应该有坚强的毅力；第二，刘巍有四分之一俄罗斯血统，俄国人的数学成就卓著，他就该有这个天赋。不管刘先生的依据是否充分，事实上，用刘巍自己的话说，他在南开的三年是“披星戴月”过来的，并扎扎实实地突破了数学这一关。后来，他不仅在《数量经济技术经济研究》、《经济学动态》等高水平杂志上发表了许多论文，而且，居然当选为中国数量经济学会的常务理事！

1998 年，刘巍毕业于南开大学经济研究所经济史专业，博士论文题目是《近代中国经济发展中的货币需求》，研究的时间段是 1927~1936 年。中国经济史学会会长、答辩委员会主席吴承明先生称其作品为“刘巍研究模式”，导师刘佛丁先生则谦虚地说，刘巍是他最省心的学生。上海财经大学杜恂诚教授认为，刘巍是最坚决贯彻南开经济史研究路线的南开系成员，并将刘巍的经济史论著定为他所带博士生的必读文献。

作为恩师刘佛丁教授指导的第一个硕士研究生，平时，刘巍总是称我为“掌门师姐”，师弟让我为他的专著做序，我不能推辞。我本科是学政治经济学专业的，硕士和博士研究生阶段先后师从刘佛丁、吴承明二位先生学习经济史，金融学不是我的专业，因此只能是谈谈感想而已。我觉得，在市场经济条件下，任何时候货币量和经济总量都是高度相关的。做出时间曲线来看，都是有规律的同升同降。货币内生论者认为，货币量的变化是国民收入变化造成的；货币外生论者则相反，认为国民收入的变化是货币量的变化造成的。不管何者为因何者为果，货币在经济运行中是相当重要的。研究近代中国经济史，必须对货币供求规律有

清楚的认识，否则，研究者可能会有局部的一些研究结论，但无法搞清宏观层面的近代中国经济现代化起步过程中的经验和教训。本学期我开始给南开大学金融系的硕士研究生开设金融史课程，得知刘巍师弟的新作出炉，所以先睹为快认真阅读了书稿。这也是我敢于答应为他这本书作序的一个原因。在我看来，本书的亮点至少有以下几个方面，请同行关注：

第一，1913~1926 年 GDP 的估算。作者从总供求决定价格的理论框架入手，使用计量经济学方法，做出了估算数据，又从储蓄、进口、投资等几个角度对数据做了验证。工作量之大、估算路径之新颖，前所未见。

第二，对罗斯基估算的近代中国货币供应量（1910~1936）层次的认定。作者选择货币量层次——即认定何者为货币——不是随意的，而是根据弗里德曼和施瓦茨的数量分析准则，以各货币量层次与 GDP 的相关系数最大者为货币，这充分体现了“货币是效率手段物”的经济学思想。

第三，近代中国货币供给的性质能补货币理论之白。货币理论界对货币供给的性质向有“内生性”和“外生性”之分，而本书作者根据银本位制下中国货币供给量的形成机制，认为近代中国的货币供给既无经典的“内生性”，也无经典的“外生性”，而属靠天吃饭式的“不可控外生性”。一方面暗示了法币改革的重大经济意义，另方面对经典货币理论提出了新意。

第四，在近代中国，财政政策无所作为，而货币供给对国民收入起到了“既能拉车又能推车”的作用，这一研究能补货币政策理论之白。通过对世界经济大萧条时期的中国、美国宏观经济运行分析，作者认为，货币政策这跟绳子只能拉车（刹车）不能推车（启动）的前提假设是需求约束型经济，而在近代中国供给约束型经济条件下，货币政策既能拉车又能推车，对这一货币政策理论补足了运行条件。

十多年过去了，刘巍一直在广东外语外贸大学工作，他用主要精力研究国际贸易和金融，经济史研究相对较少。本书的第二作者陈昭是我的博士研究生、刘巍指导的硕士生，2005 年在南开大学取得博士学位以后去了广东外语外贸大学工作，主业也搞不是经济史专业的，在那里教研究生的中级计量经济学课。真可谓十年磨一剑，刘巍带着陈昭又开始研究近代中国的货币供给了。刘巍所在的广东外语外贸大学 WTO 与广东经贸研究中心/中国计量经济史研究中心有南开大学经济史专业毕业的博士 4 人，均有不错的研究成果，而且方向集中、线路清晰。他们被行内称为“南开经济史分号”，名副其实。按南开经济史师门的辈份论，他们 4 人分属叔侄两辈。说到师门、“掌门”，不禁想起九年前英年早逝的刘佛丁教授……

谨以此文，纪念和告慰我的尊师、挚友刘佛丁教授！

王玉茹

2009 年 5 月 8 日于南开园

英国消费需求演变规律的长序列分析

陈　昭

内容提要：消费不足一直是困扰中国经济稳定发展的重要因素。经济发展的历史规律如此相似，纵观英国经济发展的历史进程，消费需求的周期性发展变化规律总是伴随着科学技术的发展并由此导致的新产品的出现，经济态势也自然的发生演变：供给约束性——需求约束性——后供给约束性。可见，经济的长期稳定发展是建立在科学技术革命的原因之上，收入的增长和消费需求的增加和变迁皆为其结果。

关键词：英国、消费需求、后供给约束型经济

“经济学的内容，实质上是历史长河中的一个独特的过程。如果一个人不掌握历史事实，不具备适当的历史感或所谓的历史经验，他就不可能指望理解任何时代（包括当前）的经济现象。”[①]中国经济发展过程中的各种现象与问题，大都在西方经济历史发展的长河中出现过，经济发展规律使然，何其相似乃尔。在经济学的发展中，有太多的事例表明经济史研究对于解决现实问题的重要意义。因此，深入研究西方经济史的各种经验教训，才有可能使我国经济避免走入歧途。18 世纪英国工业革命后的深远影响随着时间的推移日益显现了出来。它不但在经济上和生产技术上引起了巨大变革，而且导致了社会结构的剧烈变化。第二次世界大战结束后，英国经济实力大为削弱，政治地位下降。随后，1947 年印度和巴基斯坦的相继独立，到 20 世纪 60 年代，英国殖民体系瓦解。随着第三次科技革命在美国发生蔓延到全世界，世界进入了信息时代。信息化的到来，对英国的消费影响深远。旺盛的国内消费需求，是英国经济保持增长的主要动力之一。

一、英国消费需求的现状

1.消费水平提高

战后科学技术革命的飞速发展，1954 年第一座核电站的建立使用为标志的原子能的利用；计算机技术的发展和更新换代；合成材料的发展和利用；空间技术的发展；生物工程技术的广泛应用等等为标志的战后科技革命推动了世界经济的迅猛发展，这是以前任何时期都无法进行比较的。

英国 1993 年的 GDP 达到 1230.73 十亿英镑，是 1960 年 281.8 十亿英镑的近 4.37 倍，这是以前任何 1/4 个世纪都无法达到的一个增长速度，比如 1925 年英国的 GDP 是 1900 年的 2.35 倍；1950 年 GDP 是 1925 年的 2.7 倍。在此阶段，70 年代前的英国失业率一直维持在 1~2%水平上波动，1971 年以后则在缓慢波动的过程中呈现递增态势，到了 1993 年失业率达到 10.4%，仅次于 80 年代中期的水平。工业中的货币工资指数由 1948 年的 342.86 增加到 1992 年的 13601，45 年间增加近 40 倍，平均每年递增 88%。工业产量指数由 1948 年

[①]（美）约瑟夫•熊彼特：《经济史分析史：第一卷》（中译本），商务出版社，2001 年版，第 31 页。

的 185.82 增加到 1993 年的 497.66，46 年间增加近 2.7 倍。可见，二战后，科技革命使英国的收入水平大大提高。随着收入的提高，人们的消费水平自然也得到提高。

从图 1，我们可以看出，英国的消费总支出从 1960 年到 2007 年随着收入的增加是递增的，在 1960 年时，消费总支出（所有支出以 2000 年价格计算）为 337.41 十亿英镑，到 2007 年增加到 1054.93 十亿英镑，增加了 3.13 倍，平均每年以 2.5% 的速度增长。在 1969、1974、1977 和 1991 年，CPI 指数显著增加，分别为 11.22、17.72、29.71 和 82.59，造成实际 GDP 下降，消费支出出现了负增长，但不显著，平均负增速为 0.4%。英国保守党政府在 1979 年执政后，推行货币主义政策，控制货币供应量，提高利率，紧缩信贷，使英国消费需求在 80 年代初期一度陷于停滞。1982 年，保守党政府为争取大选连任，开始扩大消费信贷，解除对私人贷款的法律约束，逐步开放私人借贷市场，使英国消费支出有较大增长，1983 年较 1982 年增长 3.8%，其余年份显著的正增长。

今天的英国人是“借钱享乐”的一代。消费信贷对英国影响较大，英国人能借能花，出门旅游，特别是阳光、海浪、沙滩的异国风情，成了普通英国人的消费。1994 年前，GDP 是低于消费总支出的，直到 1994 年后，这一形势才扭转。

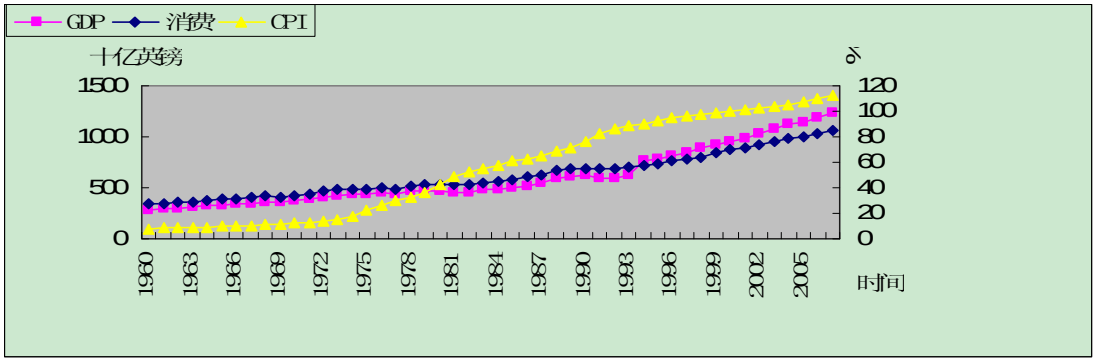

图 1　英国 1960～2007 年 GDP、CPI 和消费数据（以 2000 年价格算）

2.政府消费远低于居民消费

二战后稳定的政治环境和技术进步为消费提供了一个很好的环境，政府支出以每年 1.86%的速率增长，居民消费支出以每年 2.7%的速度增长。在 1960 年，居民消费支出为 229.25 十亿英镑，政府消费支出为 108.16 十亿英镑，到 2007 年居民消费为 799.61 十亿英镑，是当年政府消费支出的 3.13 倍。无论从绝对数字还是增长速度来看，政府消费支出都远远低于居民消费支出。

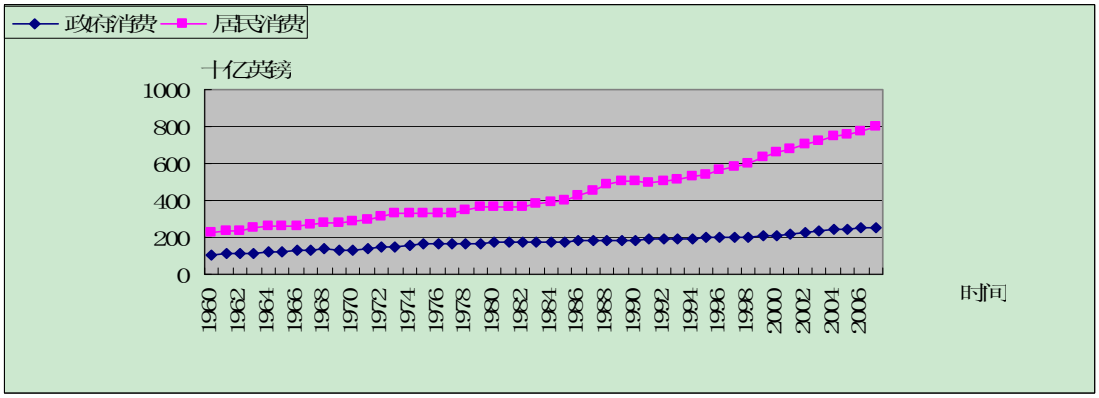

图 2　1960～2007 年英国政府和居民消费支出

3.消费支出的构成

从表 1，我们可以看出这一时间段居民的消费构成，食品和饮料的地位相对过去在下降，仅占总支出的 19.9%，服装和鞋类的支出占总支出的 5.9%，而教育、休闲与娱乐的消费支出上升到 10.8%，尤其是交通和通讯支出增加迅速，在 2006 年时占总支出 17.1%，医疗保健水平也在改善，支出上升为 1.6，而在二战前医疗、教育等支出占总支出的比重极小。从表中，我们可以看出，消费结构升级明显，人们的消费已经由生存性消费向服务性消费转变。

表 1　　1996 年英国消费支出构成

	1996 年英国消费支出构成（%）							
消费种类	食品和饮料	服装和鞋类	住房燃料和能源	家用设备支出	医疗保健	交通和通讯	教育、休闲与娱乐	其他
构成	19.9	5.9	19.7	6.5	1.6	17.1	10.8	18.5

数据来源：中国统计局网站 http://www.stats.gov.cn/tjsj/qtsj/gjsj/。

4.消费支出构成的变化趋势

20 世纪 50 年代以后，人们消费水平上升已经是共识，消费结构升级已经明显，并且这种转变正在持续。从表 2，我们可以看出，从 1980 年到 1998 年，每人平均每周消费支出由 110.6 英镑上升到 328.78 英镑，增加了将近三倍。在消费支出构成方面，燃料、照明和电，食品，酒精饮料，烟草、服装和鞋类等生活必需品的消费在下降，特别是食品支出，在 1980 年，食品支出构成为 22.74%，到 1998 年，下降了 5.73%。住房、家庭消费品、 汽车费用、车票及其他旅游费用等在消费支出中的比重变化不明显，这些消费已经成为人们的日常消费项目了，由于多年来通货膨胀严重，英磅购买力急剧下降。以 1950 年 1 英磅购买力为 100，1985 年下降至 9.1。消费者从保值观念出发，愿意向房地产投资，住房支出的比重一直较大，在 1980 年时支出比重为 14.82，1998 年为 15.67。家庭服务、个人用品及服务、休闲商品和休闲服务等服务性消费比重迅速上升。其中，个人用品及服务所占比重较大，在 1980 年时为 13.69，到 1998 年上升到 14.18%。休闲服务在总支出中比重上升较快，1998 年该项支出是 1980 年 1.35 倍。下饭馆、逛影院、卫星电视英特网，消闲和服务性的消费占了现在英国人开销的五分之一。

表 2　　1980-1998 年英国消费支出构成

	英国家庭消费支出（1999 年）						
	1980 年	1990 年	1993 年	1994/95 年	1995/96 年	1996/97 年	1997/98 年
平均每户人口数（人）	2.71	2.48	2.48	2.43	2.44	2.45	2.41
每户经济活动人口数（人）	1.36	1.20	1.15	1.15	1.13	1.16	1.14
平均每周消费支出(英镑)							
住房	16.56	44.42	44.85	46.42	48.25	49.10	51.53
燃料、照明和电	6.15	11.11	13.24	12.95	12.92	13.35	12.66
食品	25.15	44.81	49.96	50.43	52.88	55.15	55.92
含酒精饮料	5.34	10.01	11.95	12.32	11.41	12.41	13.33
烟草	3.32	4.82	5.59	5.61	5.81	6.07	6.12
服装和鞋类	8.99	16.03	17.40	17.13	17.15	18.27	19.96
耐用消费品	7.70	-	-	-	-	-	-
其他商品	8.75	-	-	-	-	-	-

交通	16.15	-	-	-	-	-	-
服务	11.96	-	-	-	-	-	-
家庭消费品	-	20.00	23.05	22.66	23.45	26.74	26.90
家庭服务	-	12.28	15.44	15.08	15.13	16.36	17.89
汽车费用	-	9.47	11.04	10.78	11.55	11.64	12.54
个人用品及服务	-	33.83	36.28	36.17	36.99	41.20	46.63
车票及其他旅游费用	-	6.19	6.95	6.64	6.17	7.45	8.12
休闲商品	-	11.28	13.26	13.89	13.23	15.17	16.35
休闲服务	-	21.54	25.56	31.20	30.25	33.95	38.81
其他	0.53	1.37	2.10	2.30	2.37	2.21	2.02
合计	110.60	247.16	276.68	283.58	289.86	309.07	328.78
消费支出构成(%)							
住房	14.97	17.97	16.21	16.37	16.65	15.89	15.67
燃料、照明和电	5.56	4.50	4.79	4.57	4.46	4.32	3.85
食品	22.74	18.13	18.06	17.78	18.24	17.84	17.01
含酒精饮料	4.83	4.05	4.32	4.34	3.94	4.02	4.05
烟草	3.00	1.95	2.02	1.98	2.00	1.96	1.86
服装和鞋类	8.13	6.49	6.29	6.04	5.92	5.91	6.07
耐用消费品	6.96	-	-	-	-	-	-
其他商品	7.91	-	-	-	-	-	-
交通	14.60	-	-	-	-	-	-
服务	10.81	-	-	-	-	-	-
家庭消费品	-	8.09	8.33	7.99	8.09	8.65	8.18
家庭服务	-	4.97	5.58	5.32	5.22	5.29	5.44
汽车费用	-	3.83	3.99	3.80	3.98	3.77	3.81
个人用品及服务	-	13.69	13.11	12.75	12.76	13.33	14.18
车票及其他旅游费用	-	2.50	2.51	2.34	2.13	2.41	2.47
休闲商品	-	4.56	4.79	4.90	4.56	4.91	4.97
休闲服务	-	8.72	9.24	11.00	10.44	10.98	11.80
其他	0.48	0.55	0.76	0.81	0.82	0.72	0.61
合计	100.00	100.00	100.00	100.00	100.00	100.00	100.00

注:（1）1994 年起为财政年度，比如 1994/1995 年度指 1994 年 4 月 1 日至 1995 年 3 月 31 日。

资料来源:英国《统计摘要》1991 年和 1999 年。

5.近几年消费构成的变化

随着第三次科技革命的深入，不仅食品服装等生存性消费品的消费支出在下降，而且生活必需品的范围扩大，交通、通讯等在人们生活中的重要性日益突出。从表 3，我们可以看出，食品和非酒精饮料, 酒精饮料、烟草和麻醉产品, 服装和鞋类，家具、家用设备及住房日常维护支出，交通，通讯，休闲与文化等在消费支出的构成中呈现下降趋势，下降约 0.3%。而且除了交通、休闲与文化等服务性消费外，其它支出在总支出中所占比重并不大，如 2006

年时，交通、休闲与文化支出分别为 15.1%、12.61%，而食品和非酒精饮料仅占为 8.94%，服装和鞋类为 5.84%等等。

同时，住房、水电、天然气和其他燃料，医疗保健，教育，饭店和旅馆等在消费支出构成中呈现上升趋势，在 2002 年分别为 17.18、1.48、1.19、 11.14，到 2006 年时，上升到 19.76、 1.62、1.38 和 11.84，而且在总支出中比重占优势地位。尤其是饭店和旅馆消费，在总出中的地位仅次于住房和燃料、交通、休闲与文化。

表 3　　2002、 2005 和 2006 年英国消费支出构成

	2002、2005 和 2006 年英国消费支出构成（%）											
消费种类	食品和非酒精饮料	酒精饮料、烟草和麻醉产品	服装和鞋类	住房、水电、天然气和其他燃料	家具、家用设备及住房日常维护支出	医疗保健	交通	通讯	休闲与文化	教育	饭店和旅馆	其他
2002 年	9.32	3.98	6.56	17.18	6.73	1.48	15.14	2.5	12.7	1.19	11.14	12.17
2005 年	8.95	3.74	5.84	19.76	5.84	1.62	15.1	2.23	12.62	1.38	11.85	11.09
2006 年	8.94	3.74	5.84	19.76	5.84	1.62	15.10	2.22	12.61	1.38	11.84	11.09

来源：OECD 统计数据库。

不仅近几年消费构成发生变化，同一种消费内部构成也发生变化，以能源消费为例，从图 3 我们可以看出，人们减少了对石油、煤炭具有不可再生和污染性质的能源消费，增加了对清洁能源天然气、水电和原子能的消费。

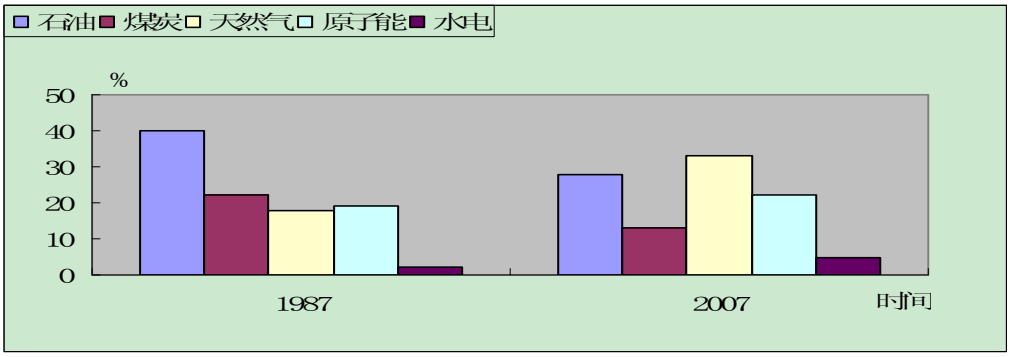

图 3　1987 和 2007 年英国能源消费结构变化

数据来源：Bloomberg，中投证券研究所。

6.新消费品的出现和消费多样化

这一时期，不仅出现了新的消费品，如信息消费、电子消费等，而且原来的消费品出现了新的变化，如教育消费，不仅包括义务教育和高等教育，还包括留学教育、职业教育、技能培训等。

新型消费品销售快速增长。主要集中在：以移动通讯和信息为代表的通讯信息消费；以私人汽车为代表的交通消费；与住房相关的商品消费，如家用电器；以教育、旅游为代表的精神文化消费。

同时随着经济全球化和区域经济一体化的发展，人们可以接近的消费品越来越多，人们几乎可以接触到世界各地的消费品和服务。同样的商品或服务，人们可以根据品质、价格和个人偏好进行消费。可供人们选择的消费品也越来越多，如汽车，你可以购买日本的丰田，也可以使用德国的宝马，还可以选择英国的劳斯莱斯，你可以选择小型的轿车，也可以选择大型货车等等。消费品的多样性使人们的消费也趋于多样性。

7.近代和工业革命前消费支出构成比较

从收入角度看，在 1688 年，英格兰和威尔士人均 GDP 水平（以 1990 年国际美元计）1411 美元，1996 年增加到 17891 美元，接近 12.68 倍。收入水平的变化为消费结构的变化奠定了经济基础。

从政府消费和私人消费角度来看，1688 年时，私人消费支出是政府支出的 9.36 倍，到 1996 年下降到 6.73 倍，虽然从总体上看，私人消费支出大于政府支出，但是近年来，政府在消费中发挥的作用也越来越大。

在消费结构方面，1688 年消费支出中最主要的是食品支出，支出比例为 25.7%，其次是服装和鞋类 19.2，其它支出所占比重较小，尤其是教育、健康、消遣和娱乐以及交通和通信，这些加起来也只占总支出的 3.8%，不及食品支出的 1/4。可以看出，这一时期，消费构成极不平衡，这与当时的生活水平有关。到 1996 年，这一情况发生变化，食品支出、服装和鞋类支出比重仅为 6.5、3.7，教育、健康、消遣和娱乐以及交通和通信所占比重分别上升为 5.4、6.7、5.7 和 10.6。这一年最主要的支出为交通和通信，比例为 10.6，其次是比列为 10.0%的租金及虚拟租金。从表 4 可以看出，1996 年人们的消费支出构成比较平衡，所有项目支出比较均衡，教育、健康、消遣和娱乐等消费支出比重上升较快，人们的消费结构由生存性消费向服务性消费转换。

表 4　　1688 年和 1996 年英国国内消费支出结构（百分比）

	1688 英格兰和威尔士	1996 英国
食品	25.7	6.5
饮料和烟草	13.6	5.9
服装和鞋类	19.2	3.7
照明、燃料和能源	3.7	2.2
家具、装饰和家用设备	9.3	4.0
个人服务	3.0	1.2
小计	**74.5**	**23.5**
租金及虚拟租金	4.1	10.0
教育	1.4	5.4
健康	0.7	6.7
消遣和娱乐	0.9	5.7
交通和通信	0.8	10.6
其它	1.9	11.5
小计	**9.8**	**49.9**
私人总消费（合计）	84.2	73.4
政府消费（教育健康除外）	**9.0**	**10.9**
资本形成总额	**6.8**	**15.8**
国内总支出额	**100.0**	**100.0**
人均 GDP 水平（以 1990 年国际美元计）	1411	17891

数据来源：安格斯·麦迪森.世界经济千年统计［M］.北京，北京大学出版社，2009。

二、英国消费变化的特点

从 1500 年至今，英国消费的变化都伴随着战争和危机、技术革命、产业结构变化等因素，下面我们将分析英国 500 多年来的消费变化的特点和规律。

1.消费变化伴随着战争和经济危机的影响

在上面三个时间段内，战争和经济危机几乎没有停止过，但是战争和经济危机对英国消费的影响却不同。

从 1500 年到 18 世纪 50 年代，英格兰在 1588 年击败西班牙“无敌舰队”，树立海上霸权，扩大了贸易范围，英国引进了玉米、马铃薯等多种粮食作物，使人们可以消费更多的谷物。1640 年英国在全球第一个爆发资产阶级革命，成为资产阶级革命的先驱，1649 年 5 月 19 日宣布成立共和国，1688 年发生“光荣革命”确定了君主立宪制，统一的环境和先进的政体为经济发展提供了先决条件，这一时期虽然人们的消费水平较低，但主要是受生产力制约。战争统一了英国，而且使英国树立了海上霸权，有利于经济发展和消费进行。但是，18 世纪的早期因瘟疫和饥荒损失了一半人口，人们的收入大大减少，而且政府用于满足皇室的正常开支和战争、经济危机的开支也增加。

从 18 世纪 60 年代到二战结束这一段时间，发生在 1857 年和 1866 年的世界性经济危机对英国的影响不大，时间也较短暂，英国中央银行和其他银行发行的现钞流通量并没有减少，中央政府的关税收入和财政支出也比较平稳，工业产量指数没有下降，批发物价指数和消费物价指数也仅仅有小幅度短时间的下降，对英国的消费也较小。但是 1873 年开始的世界性经济危机在英国表现为 1878 年总爆发，批发物价指数和消费物价指数连年持续较大幅度下降并一直连续到与 1882 年和 1890 年的世界性经济危机接轨，这一时期的市场环境对劳动者极为不利，工资趋近于保持在或接近于贫困生存线水平。1914~1918 年的第一次世界大战并没有减少英国 GDP 总量，增加部分更多是因为满足军事战争的需求，因此战争改变了需求结构。这一时期，由于物价的上涨和战争的不稳定，英国消费水平较低。战争使得对军需品的需求增加，影响了人们的日常开支。1929~1933 年世界性经济大萧条，英国 GDP 和资本形成下降明显，物价指数下降，工业产量指数变化不明显。这一时期不是消费品少而是太多了，社会有供给约束型向需求约束型转变。第二次世界大战不仅没有使英国 GDP 下降反而持续增长，物价上涨和货币增加使名义 GDP 增加，但是工资的实际购买力并没有增加，反而下降。第二次世界大战，英国经济实力大为削弱，政治地位下降。这一时期的劳动力当作一种生产要素，在大多数工业都是劳动密集型的竞争社会里，劳动以最低的成本获得，工资趋近于保持在或接近于贫困生存线水平。

2.消费水平周期性明显

英国收入水平明显成周期性变化，伴随着收入的变化，英国的消费也呈现周期性变化。从 1500 年到工业革命开始前，英国处于农业社会，生产力水平较低，消费支出以谷物支出占绝对优势地位，其它支出非常小，到 18 世纪 50 年代，随着技术的进步和收入的增加，人们开始由种植业转向畜牧业，肉食消费和鱼类消费明显增多。这一时期人们的消费水平由低到高。

到工业革命开始时，英国由农业社会向工业社会转变，先进的机器和运输工具的改进，农业人口在减少，城市化进程在加快，人们收入水平也在提高，这一时期对最终制造品的需

求迅速增加，对运输、教育、医疗等服务消费业的需求逐渐增加。到工业革命结束，英国确立了海上霸权，被称为“日不落帝国”，人们不仅生活水平提高，可供消费的商品范围也在扩大。但是随着德国、法国、美国、日本等崛起，以及多次经济危机和世界大战，英国的地位在逐渐衰落。此时，伴随着失业增加、货币发行量增加和物价上涨等，人们的实际收入在下降，人们的生活水平在很多时候都只能维持生存。这一时期人们的消费水平从总体上看呈现由高到低的变化过程。

二战结束后，由于相对稳定的经济环境和技术进步，以及全球经济一体化，英国的经济迅速恢复和发展，人们的生活水平显著提高，消费水平不仅经历了由低到高的过程，而且消费结构也明显优化。

3.消费结构变化的特点

从上文看，英国居民消费由原来简单的数量增长演变为数量增长与结构调整并行，消费升级通过衣食—耐用消费品—住宅、交通、通讯、文化教育、娱乐、医疗和旅游等产业链不断演化，消费结构向更高层次转化，不仅推动了经济的持续发展，还提升了经济增长的质量。

在进入工业革命之前，生存型消费占消费总支出的比重最大。消费结构极不平衡，食品、饮料、烟草服装和鞋类支出占人们的主要消费支出的 60%以上，教育、医疗、交通、消遣与娱乐等支出比重可以忽略，这些消费基本上属于上层社会生活的人。

进入工业革命之后，谷物消费占总消费支出的比重在下降，制造品消费在上升，服务消费也在缓慢增加，但是不明显，而发展型和享受型消费比重也在缓慢上升。

到 20 世纪 50 年代后，消费结构迅速优化，不仅食品、服装等生存性消费品的消费支出在下降，而且生活必需品的范围扩大，交通、通讯等在人们生活中的重要性日益突出。私人消费支出大于政府支出，但是政府在消费中发挥的作用也越来越大。

4.每个时期都会出现新型消费品

早期，从意大利引进的荞麦和大米后，人们有了新的消费品。在饮料方面，在 18 世纪还出现了新的饮品——杜松子酒。在 1588 年击败西班牙“无敌舰队”，树立海上霸权后，英国海上贸易和殖民贸易发展迅速，许多新的消费品出现，如进口的香料、中国的丝绸和印度的宝石等。

第一次工业革命，纺织、采煤、冶铁等部门兴起，以及新兴的工业部门——棉纺织业兴起，出现了纸张、棉质衣、玻璃和轻啤酒等新兴消费品。第二次工业革命，廉价钢材，精密制造以及电力的出现使一系列新的的消费商品即我们现在所称的消费者商品成为可能：缝纫机、廉价钟表、自行车、电灯以及最后来临的家用电器等。此时，在农作物方面，英国也引进了新的作物，新作物有两个主要来源：其一，从国外引进新的物种，如柑橘、烟草；其二，对物种进行不断改良以使其适应新的用途。在 20 世纪初，引进乔木和灌木，芦荟等植物。柑橘、许多蔬菜、草莓、装饰鲜花以及绝大多数的家畜不断进化改良。

在 20 世纪 50 年代后，包括私人汽车、家俱地毯、收音机、电视及其他家用电器等耐用消费品需求兴旺。在专业性劳务如金融和保健、文娱活动用品如电子乐器和体育用品、通讯联络如电话和旅游等方面市场需求预计将继续增加。与此相关的旅馆、餐厅、健身房、运动场及体育器材等营业情况良好。尤其体育器材进口，1985 年上半年增长 20%。几乎各种球类及运动器械进口均有增长。以移动通讯和信息为代表的通讯信息消费和以教育、旅游为代表的精神文化消费也相继出现。

5.形成了层次分明的不同购买力消费阶层

16 世纪，贵族和当权所有者穿的是镶有金银珠宝的重质锦绸和丝织衣物，但是普通的布料或呢料还是占据了衣料贸易总价值的绝大部分。

18 世纪后半期，英国北部地区的工资超过南部农村地区的工资和西部地区的工资，并且在 19 世纪的上半期，这个差距继续加大，它使劳动力市场显得很不完善。同样，在各地

区内部，不仅在城乡之间，而且一个城市与另一个非常相似的城市之间，工资水平也存在巨大的差异。工资的差异导致了购买力的差异。底层人们的生活水平只能维持生存，而皇族和教父可过奢侈的生活。

二战后，虽然人们总体生活水平提高，但是不同阶层的消费差距没有减小。

6.工业革命的影响

在 16 世纪，英国处于农业社会，那时产业以种植业为主，人们以谷物消费支出为主，在 17 世纪后期，由种植业转向畜牧业，肉食消费支出在总支出的比重仅次于谷物。进入工业革命之后，制造业得以迅速发展，尤其是纺织业，原棉消费迅速增加，交通和通信消费也逐渐增加。进入电气时代后，照明、燃料和能源与家具、装饰和家用设备的消费迅速增加。进入第三次科技革命以后，人们进入了信息时代，第三产业迅速发展，服务业是支柱产业，其产值占国内生产总值的 2/3，制造业仅占不到 1/5。教育、医疗保险、旅游、休闲等服务性消费在总消费中的比重越来越大，这种由生存性消费转向服务性消费的转变表明英国的消费结构在优化。

7.国际化特征越来越明显

早期，除了对本土食物消费外，还引进了国外的荞麦和大米，进口的香料、中国的丝绸和印度的宝石等。在 20 世纪初，引进乔木和灌木，芦荟等植物，柑橘、许多蔬菜、草莓、装饰鲜花。这表明英国消费正走向国家化。随着贸易的扩展，人们对境外商品的品种、质量、价格和服务等方面的需求增加，消费档次在提高，尤其是教育、旅游、通讯、耐用品等新消费品的国际化消费趋势越来越明显。

三、英国消费的实证分析

虽然英国消费的逻辑分析是从 1850 年开始，但是英国消费最早是从 1960 年才有统计数据的。因此，计量实证过程只能从 1960 年开始。

从计量经济学的基本理论出发，实证分析之前要判定变量的平稳性，否则容易引起虚假回归。变量平稳性检验常用的方法是 ADF 检验，本书依据 ADF 单位根检验法的基本理论，结合检验形式、查分次数以及 DW 值大小，综合判断变量的单位根情况如表 5 所示。

表 5　　变量的 ADF 单位根检验结果

变量	差分次数	检验形式（c,t,k）	DW	ADF	1%	5%	结论
XF	1	(c,t,1)	1.86	-4.174	-4.17	-3.51	I(1)*
Y	1	(c,t,1)	1.97	-5.94	-4.17	-3.51	I(1)*

*表示变量差分后的序列在 1%的显著水平上通过 ADF 平稳性检验。

上述 ADF 单位根检验结果表明理论模型中涉及的变量都是一阶单整序列，变量都是非平稳的，非平稳变量之间的最小二乘回归很可能为伪回归，因为蒙特卡洛模拟已经表明单位根变量之间的回归在很大程度上具有接受相关关系的更高的检验势。因此回归之前要判断变量之间的协整性，有协整关系才可直接利用普通最小二乘法，否则需要另行处理，本文变量的 JJ 协整检验结果如表 6 所示。

表 6　　JJ 协整检验结果

特征根	迹统计量（P值）	5%临界值	$\lambda-\max$ 统计量（P值）	5%临界值	原假设
0.27	14.4（0.02）**	12.3	14.4（0.01）*	11.2	0 个协整向量
4.9E-5	0.002（0.97）	4.1	0.002（0.97）	4.1	至少 1 个协整向量

*（**）表明在 1%（5%）的显著水平下拒绝原假设，P 值为伴随概率。

协整检验结果表明二个变量之间具有协整关系，因此按照计量经济基本理论，可以直接运用普通最小二乘法回归，回归结果如下：

$$C_t = 14.4 + 0.191 Y_t + 0.93 C_{t-1} - 0.126 Y_{t-1} + [AR(1) = 0.397]$$

（3.82） （16.66） （-2.19）

R^2=0.999 D.W = 1.92 JB=0.6(0.74) LM(1)=0.48(0.49)

LM(2)=0.61(0.74) ARCH LM(1)=2.17(0.14) ARCH LM(2)=2.66(0.26)

上述检验指标括号中的数字表示该值的伴随概率。D.W 检验表明不存在一阶自相关，JB 检验表明残差序列正态分布，LM 检验表明不存在一阶和二阶自相关，ARCH 自回归条件异方差检验表明不存在异方差。总体来看，模型拟合效果很好。

对上式两边同时取期望，并记 $E(C_t) = C^*$， $E(Y_t) = Y^*$，则上式可简化为：

$$C^* = 14.4 + 0.191 Y^* + 0.93 C^* - 0.126 Y^*$$

最终可得：

$$C^* = 205.7 + 0.93 Y^*$$

上式表明，自 1960 年有消费数据以来，影响英国近 50 年长期消费的因素主要是长期收入，并且长期边际消费倾向是 0.93，这个数据表明长期平均来看英国人的大部分收入用于消费，很少储蓄，这个结论完全符合现代英国人的生活习惯。在 1960 年时，英国人的人均收入为 8645 美元，消费率为 81.35%，到 2007 年，人均收入为 23013 美元，消费率接近 86%。自主消费和 20 世纪 60 年代初的水平接近，即现在英国人如果没有收入，也要保持 20 世纪 60 年代初的消费水平。因此，从自主消费和边际消费角度来说，我们的实证结论是符合英国消费的实际状况的。

四、简短结论和启示

英国工业革命之前，产品供不应求，整个经济和消费状态处于供给约束性经济模式下。这时候，“供给自动创造需求”的萨伊定律成立。工业革命之后，技术领先的英国生产率快速发展，产品极大丰富，远远满足了人们的日常生活需求，英国由供给约束型的经济态势向需求约束性经济态势转变，人们对产品的需求有了更多的选择权，经济出现了供过于求的局面。由此，英国主导了对外殖民侵略和扩张，而军事上的绝对优势地位为扩大海外市场提供了基础和保障。二战以后，随着科技革命的发展和技术的进步，更丰富的产品为人们的消费提供了更多的选择机会，这些产品不仅包括物质的，还包括服务领域乃至精神层面的。自此，英国的消费进一步发展到“后供给约束型经济”模式下，现今英国人消费的选择有赖于这些新的“产品”的创造和开发。

由此可见，技术的发展——新部门的建立——收入的提高……生产率的提高——产品数量和品种的增加……消费规律和趋势的演进，形成一个循环的经济变化规律，并且一直主导着英国长期经济增长。英国经济与消费的长期发展规律可以用图 4 表示。

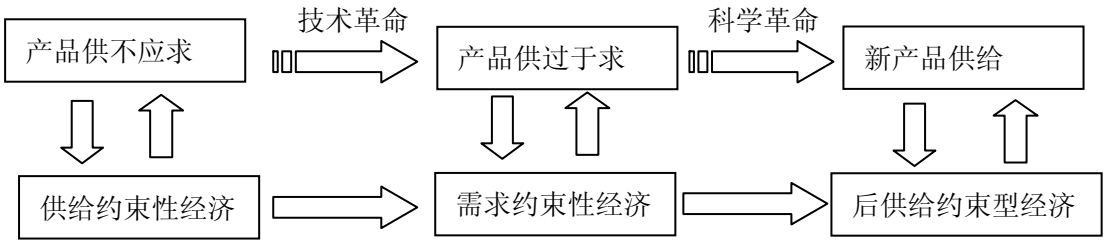

图 4　　英国经济发展态势与消费需求的变化规律

从中国经济的基本情况出发，我们发现，中国经济态势正处于第二阶段以及向第三阶段发展的进程，启动内需的关键是科学技术革命以及由此带动的收入增长，从而使需求拉动经济不仅是现实的而且才是可能的，这是经济长期稳定发展的充分必要条件。

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Reflection on reflections: review essay on reflections on the cliometric revolution: conversations with economic historians[①]

再反思：回顾《计量经济史革命的反思：与经济史学家的交流》

Ann M. Carlos[②]

Abstract Cliometrics is currently celebrating five decades of research and as happens at such benchmarks, there is an interest in understanding the path along which Clio has walked and where the discipline is going. *Reflections on the Cliometric Revolution: Conversations with Economic Historians*, edited by Lyons, Cain and Williamson (Routledge, London, 2008) provides us with a detailed introductory chapter on the history of the profession and a set of interviews with 25 scholars who were involved in the transformation of a discipline. This review essay reflects on the nature of the transformations during the past five decades.

内容提要：计量经济史学正在庆祝研究工作开始 50 周年，如同了解在这样的学术水准上巧然产生一样，了解计量经济史学科走过的和正在走的路径是饶有趣味的。莱昂斯、凯因和威廉姆森编辑的《计量经济史革命的反思：和经济史学家的交流》（伦敦·劳特利奇出版社，2008 年），为我们提供了一个既详细有很专业的序言，他们采访了参加经济史学科转型工作的 25 位学者。这个回顾性序言反映了在过去 50 年中经济史学科所发生的转变之本质。

Keywords Development of the discipline Historical Historiography

关键词：学科发展 历史的 历史编纂学

1 Introduction

To the extent that one can date the beginning of a revolution or if one needs a date, the joint meeting of the Economic History Association and the National Bureau of Economic Research conference on Income and Wealth in 1957 is often taken as the starting point of what was then known as the 'new economic history' and has since been termed Cliometrics. Cliometrics is celebrating five decades of research and as happens at such benchmarks, there is an interest in understanding the path along which Clio has walked and where the discipline is going. Reflections on the Cliometric Revolution: Conversations with Economic Historians, edited by John S. Lyons, Louis P. Cain, and Samuel H. Williamson (LCW 2008) provides us with an important part of that road map. This book starts with a detailed introductory chapter on the origins and history of the cliometrics to the present. The earlier parts of this section are essentially a history of thought

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expounding the links between ideas and scholars. This is followed by a set of interviews with 25 scholars who were involved in the transformation of a discipline. Seventeen of those interviewed are American; the others from England or from the English-speaking world and all but two are men. The breadth of research involved defies any simple categorization of interviewees by field. The volume ends with an Afterword by Patrick Karl O'Brien. The focus is thus on the Anglo-American world. All but one of these interviews is reproduced from those conducted, primarily during the 1990s, for the Newsletter of the Cliometrics Society.

How we reflect on ourselves; who reflects; and what those reflections represent are questions that emerge from reading this volume. Cliometrics is defined here as the application of economic theory and quantitative methods to the study of history, in other words, economic historians use the tools of the economics profession to explore the richness of the past and also to bring the past to bear on the issue of the present. Cliometrics is thus comprised of three separate elements: economic theory, history and quantification. Although these elements can be considered on an equal footing, it is the combination of these elements that has created a tension between and among practitioners.

Although cliometrics is generally perceived as beginning with a 'big bang' at the Williamsburg conference of 1957, as the authors make very clear, this was itself the result of work conducted during the preceding decades, of particular interests, and of institutional structures. As with the volume, this review essay will focus only on the Anglo-American tradition. What this volume makes abundantly clear, however, is the need for a companion piece on the Continental economic historical tradition and on the connections with the various players interviewed in this volume.

2 Antecedents

Economic history as an academic discourse has its own history. One of the important contributions of this volume is the very clear presentation of the history of the profession and the various strands that went into the making of cliometrics. Lyons, Cain and Williamson begin in 1893 when, in his inaugural address at Harvard, William Ashley, the first US Professor of Economic History, ''advised the theorists and the historians to occupy separate spheres'' (LCW: 5) due to the tension arising from an inductive versus deductive approach. His concern stemmed from a dispute that had emerged in England with the rise of neo-classical economics and its role in economic history. It also reflected, as the authors point out, conflict between the ''German School of Historical Economics'' and the marginalist ''Austrian'' school. The role of economic theory in history is thus not solely a product of the cliometric revolution.

This tension was exacerbated as neo-classical economics had come increasingly to dominate teaching in economic departments, with Samuelson's Foundations of Economic Analysis (1947) coming to symbolize the dominance of the tools of optimization and comparative statics for the next few decades. The formalization of economic theory and the formalization of the analysis of questions was certainly one force that played a role in the early development of the cliometric tradition. Although the neo-classical methodology is often what comes to mind within the definition of cliometrics, what emerges from the interviews, is a much broader definition of theory and also that the theory in question differs from one practitioner to another. There are the a-temporal models of neo-classical economics, to ideas of path dependence discussed in the interview with Paul David, or the modelling of institutions in the conversation with Doug North.

Game theory and applied general equilibrium analysis would provide yet other theoretical frameworks for the modelling of and understanding of history.

If the development of theory was one factor, another strand in the emergence of cliometrics, very eloquently described by Lyons, Cain and Williamson, was a desire for greater quantification, with the search for more data and better data. In 1920, the National Bureau of Economic Research (NBER) was founded in New York to produce research based on facts. This research was to be scientific, impartial and neutral with respect to policy. (LCW: 8) The creation of this institution generated a focal point around which those interested in statistical or quantitative research in the US could locate. Within the NBER, a focus on the development of the American economy, its size, industrial composition and distribution of US national income and income fluctuations provided the foundation of much later work. In 1930, the late Simon Kuznets (1901–1985), himself a student of Wesley Clair Mitchell(professor at Columbia and first director of the NBER), was put in charge of the Bureau's work on national income. Kuznets and his group were to generate the data and analysis that was to permeate much of the early cliometric work. In a section entitled ''From the workshop of Simon Kuznets, Economist'', the authors present a short biography of Kuznets followed by four interviews: Richard Easterlin, Robert Gallman, Robert Fogel and Stan Engerman. For the latter two interviews, there are updated 'further reflections'.

A focus on business cycles and growth at the NBER was, of course, reinforced by the Great Depression. But such a focus had an earlier tradition in the work of Marx and Kondradiev: a Marxian critique was to emerge in the US with Sweezy and in England with Maurice Dobb. (LCW: 9) In addition, the work of Keynes (1936) and the intellectual development spurred by changes in macroeconomics reinforced the need for greater quantification of national income accounts and the role played by various sectors in the economy. A parallel tradition is also to be found within the field of econometrics, for example, see Demeulemeester-Diebolt (2007). Developing along side this greater interest in quantification was the development of the statistical tools necessary to analyse these data. The physical computing infrastructure that would allow for greater use of statistical data was growing with the possibilities here being reinforced by the requirements of the Second World War. It was perhaps only a matter of time until the tools of economics with a focus on answering well-defined questions would be applied to questions of the past.

The role of quantification played by the NBER cannot be underestimated, but there are a few other precursors that should also be mentioned. Hamilton's (1934, 1936) early work on the sixteenth-century price revolution, and the link he famously posited between inflation and economic growth, constituted a form of cliometrics being driven by macroeconomic theory and involved quantification. It caught the attention and approval of Keynes in the *Treatise on Money* (1931). Sweezy's *Monopoly and Competition in the English Coal Trade,* 1550–1850 (1938) was another pioneering work in the cliometric mode—although its theoretical sections show again how early the tension between what was considered history and economics emerged, being denounced by Coase (1939) in an *Economica review* as 'very disappointing' and as 'bleaching bones' by Austin Robinson (1941) in his review of the book.

A third strand fostering the emergence of Clio discussed by the editors is the role played by universities. Universities are the primary institutions that foster academic disciplines, although the editors note the substantial role played by the Carnegie Institution and the Rockefeller Foundation in supporting economic history. Then as today, there has been a long tradition of economic history at Harvard, but Harvard was not the only institution fostering what the editors term the early

'quantitative-analytical historical enterprise' (LCW: 11). In 1930, Arthur D. Gayer moved from Oxford to Columbia University in New York City to pursue his interests in questions of industrial fluctuation and growth. This was to be a very fruitful move. In 1936, he was joined by Anna Jacobson (later Schwartz) of Columbia, Isaiah Frank also of Columbia and in 1938 by Walt Rostow of Yale and Oxford. By 1941 Gayer, Rostow and Schwartz (1953) had completed a two-volume study *The Growth and Fluctuation of the British Economy,* 1790–1850, although it was not to be published for another decade. Rostow would publish his *Stages of Economic Growth: A Non-Communist Manifesto* in 1960 adding the term 'take-off' to the vernacular and creating a popular perception of the shift to modern economic growth as a kink as an economy shifted into a modern economic growth performance. Explaining the shift to modern economic growth or the Great Divergence is the focus of much current work in many fields: economic history those working on unified growth models and models of endogenous growth for example.

3 Clio as a young woman

"Economic history is in a poor way" seems to be an almost constant refrain in the profession. This particular comment, however, was made by Alexander Gerschenkron to Simon Kuznets in the 1950s. Gerschenkron believed that the field " is unable to attract good students, mainly because the discipline does not present any intellectual challenge…"(LCW:18). In the short biography preceding the four interviews ''From the Workshop of Alexander Gerschenkron" —John Meyer, Albert Fishlow, Paul David and Peter Temin—the editors show that this was certainly not the situation. Indeed, the next generations of economic historians from his workshop were to continue to show quite clearly the falsity of both parts of Gerschenkron's statement. The intellectual challenge emerged at the joint meetings in 1957. The conference highlighted both issues of quantification, with researchers from the NBER Income and Wealth group presenting their contributions to the historical national accounts of the United States and Canada and Robert Gallman his estimates of US commodity output, 1839–1899, and the role of theory as exemplified in John R. Meyer and Alfred H. Conrad ''The Economics of Slavery in the Ante-bellum South''.

The paper by Conrad and Meyer (1958) used an explicit economics/finance methodology to examine a long standing proposition in American history that slavery as an institution was moribund and would have died out without the need for a Civil War. What they showed was that slavery on the eve of the Civil War was as least as remunerative as other capital investments of the period. In his interview Meyer has described this work as 'some youthful folly' (1997:409) but more importantly in the interview and in the paper itself, he makes it very clear that they did not see themselves as pioneers. By way of example, they note that Kenneth Stampp's (1956) book, *The Particular Institution*, had developed the same result, albeit from a more specifically historical perspective (LCW: 377). In his interview, Stanley Lebergott notes that Robert Worthington Smith (1946) had all the same elements in ''Was slavery profitable in the ante-bellum South?'', a paper published in the 1940s (LCW:108). As was to become clear, it was neither the answer, nor perhaps even the question that was at issue, but rather the approach. Economics is neutral to value and morality and many argue that people were dehumanized in the process; ignoring, of course, the very dehumanizing nature of the institution of slavery itself.

The coming together of a systematic economic methodology with more and better data determined the way that questions would be addressed by economic historians trained within

economics departments. The asking of a well specified question, answered formally, would be the hallmark of the 'new economic history'. The nature of the formalization would, of course, change over the coming decades. But there was another source of vibrancy for these new economic historians working in the 1960s and that was what Claudia Goldin (1995, 1997) has referred to as the ''huge fossilized stock of accepted wisdom concerning major projects, figures, and events of the past'' (1995:194) which she suggests did not exist to the same extent in the other fields of empirical economics. Clearly the contention, that slavery as an institution was moribund, was one such piece of accepted wisdom. Another was that the building of the railroads led the economic growth of the Unites States and that they were indispensable for the growth and development of the nation. Historians have also contended that the Navigation Acts caused the American Revolution or that President Jackson's policies with respect to the Second Bank of the United States generated the recession of the late 1830s and early 1840s. Although each such assertion might or might not have been true, each was open to empirical testing. In the case of the railroads, Albert Fishlow (1965) argued that they were not built ahead of demand. Robert Fogel (1964) went further and argued that they were not indispensable to economic growth. Again, it is not just the answer that was to be so provocative and influential but rather the way in which the question was posed. Fogel examined an explicit 'counterfactual', asking what would have happened if the railroads had not been built? How much more slowly would the economy have grown? In his interview, Fogel says that ''I never viewed Railroads and American Economic Growth as a disputatious book aimed at provoking a controversy for its own sake, but as a very detailed study of the way a major innovation increased productivity. That was certainly the way that Kuznets viewed it.'' (LCW: 335) Although often viewed as a hallmark of cliometrics, historians and others have long made use of implicit counterfactual propositions, just not as explicitly. Applied computable general equilibrium models provide another avenue for explicit modelling of counterfactual questions.

The developments at the Income and Wealth conference were enhanced and reinforced by the development of a regular 'Cliometrics' Conference at Purdue University. Having an annual conference created a physical location at which the new style economic historians could present their work. How these conferences came into being is well told by the authors. In 1960, Lance Davis and the late Jonathan [1928–92] sought and received funds from Purdue's Quantitative Research Institute for a December meeting which they called ''The Conference on the Application of Economic Theory and Quantitative Methods to the Study of Problems of Economic History''. Years later, the title was amended to the ''Cliometrics Conference''. The term cliometrics had actually appeared in 1960 in a paper by Davis, Hughes and Reiter (1960:540), where they discussed quantitative research in economic history:

In brief, the logical structure necessary to make historical reconstructions from the surviving debris of past economic life essentially involves ideas of history, economics and statistics… at Purdue the resulting discipline has been labeled ''Cliometrics.''

It was at these early conferences that much of the work that dominated the field was presented. William Parker and Robert Gallman discussed their large data project on southern farming, based on samples from the original enumerations of US Censuses in the nineteenth century (Parker 1961; Parker 1962; Parker and Gallman 1964). In 1965, David presented his early work on the diffusion

of technology which set the stage for the future work on path dependence. Richard Easterlin presented several papers linking demographic and economic change with ‘‘Inter-relations Between Long Swings in Demographic and Economic Growth, US, 1820–1960’’ in 1964 and ‘‘Economic–Demographic Interactions and Long Swings in Economic Growth’’ in 1966.

Most of the early quantitative work on the economics of slavery and southern agriculture appeared at Cliometrics Conferences. Genovese presented ‘‘Food costs of Slaves and Profitability of Slavery in the Antebellum South in 1963; Gallman ‘‘The Self-Sufficiency of Cotton Plantations’’, Noel Butlin ‘‘The Economics of Slavery’’, and Gavin Wright and Peter Passell ‘‘Production Functions in Cotton Farming in the Nineteenth Century’’ at the 1968 conference. There were, of course, other papers. In 1963, Doug North gave his paper on ‘‘Trends in Ocean Freight Rates’’ and in the next year Rondo Cameron presented ‘‘Banking in the Early Stages of Industrialization’’. ‘‘Banking Market Structure and Capital Mobilization after the Civil War’’ was presented by Richard Sylla in 1969. A complete list of the papers presented can be found on the Cliometrics Society website at www.eh.net/clio which shows the breadth and depth of the work presented.

There was a clear focus on matters pertaining to the development of the US economy during this first decade of the Cliometrics Conferences. But the focus was not exclusively on the US. In 1963, John Dales presented an influential paper in Canadian historiography titled ‘‘Industrialisation as a Force toward Retardation in the Rate of Canadian Economic Growth’’ and 2 years later Marvin McInnis presented ‘‘Regional Income Differentials in Canada’’. In 1969, there were three papers on non-American topics, George Grantham on ‘‘French Agricultural Technology in the Nineteenth Century—A statistical Enquiry’’; Deirdre Mc Clos-key, on ‘‘Did Britain Fail?’’ and Raymond Goldsmith, on ‘‘Comparative Financial Developments since the Late nineteenth Century’’. Over time there would be a continued growth in the number of papers addressing non-US issues. Indeed, in recent years, the papers presented have predominantly addressed non-US themes.

There can be little doubt that the vibrancy and productivity of the ‘new economic history’ was closely tied to the environment created by the annual Cliometrics Conferences. Being asked about presenting his work on railroads, Fogel replied that “it went the full afternoon but, in any case, it went much longer than it was scheduled to go.” He also remembered that ‘‘although the questions were probing and hard, and some were sceptical, they were not hostile.” (LCW: 333) Richard Sylla summed up the experience in a slightly different way ‘‘There was a lot of dedication to the cause, and the discussions were exciting and constructive. We had the feeling that if we could make it to West Lafayette in the winter, survive the discussions of our papers, and make it home again, then we could do almost anything.” (LCW: 16) None of those interviewed in the volume failed to make it home, but there surely must have been some. The combination of explicit economic reasoning with new data and statistical analysis had all the hallmarks of work being done in economic departments. Yet as Lyons, Cain and Williamson point out, even the simplest and most straightforward of this work raised the technical level of the ‘new economic history’ over the more “traditional’ work being done in the field. In addition, a perception that the work treated people as things, and as being less than socially sensitive, led to resistance within the broader history community. In1963, the American Historical Association President warned against worshipping ‘‘at the shrine of that Bitch-goddess, QUANTIFICATION’’. He went on to argue that history ‘‘fails if it does not show [people] as individuals whenever it can’’ (LCW: 20). This

perception of the role of theory and quantification in how economic history should be conducted was not something that emerged only in the 1960s, rather it was part of the debate earlier than the cliometric revolution.

One of the many interesting features of this volume is the use of quotations to preface each new section. Leading into a discussion of the world before the 'new economic history', the editors cite the opening paragraph of Austin Robinson's1941 review of Paul Sweezy's (1938) *Monopoly and Competition in the English Coal Trade,* 1550–1850. Austin wrote:

This is an unusual book. The writing of economic history has been left in the main to historians, trained in the techniques of historical research and applying them to the special field of economic history. There have always been exceptions; monetary history in particular has owed much to economists. But the greater part of our knowledge of industrial history we owe to historians. Mr. Sweezy would, I think, call himself primarily an economist. He has tackled the problem of the limitation of the Vend with the same apparatus of thought that a competent economist might be expected to use on some contemporary problem. I am old-fashioned enough, however, to feel a slight shock at meeting marginal revenue curves in a book on economic history, and I pray that all who come after him will not find it necessary to litter their pages with the bleaching bones of all the analytical camels which have carried them to their destinations.

Robinson finishes the paragraph saying ''After all, the engineers, who use techniques far more complex than our own, do not festoon their bridges or aeroplanes with their discarded calculations.'' Interestingly, those who read to the end of the review were told that ''Mr. Sweezy's book…has the great merit of asking the significant questions and providing the data with which to answer them.'' (Robinson: 101, 105). The role and place of theory in constructing and supporting the narrative is now a conversation of more than seven decades and one that is unlikely to change.

4 The camels are here to stay

Despite the misgivings and perhaps even the mistrust of historians, cliometrics was here to stay. The work of the 1960s had shown that slavery on the eve of the Civil War was still a viable system. It was also a system that made the South prosperous. That the source of that prosperity was not well understood in the 1960s comes through clearly in the interviews with both Stanley Engerman and Robert Fogel. Their answers formed the basis of Time on the Cross (1974). It is probably not exaggerating to say that it generated a fire-storm of comment and debate beyond the confines of the academy. For those economic historians coming of age in the 1970s, the controversy surrounding this volume might be considered akin to the impact of the debates at the early Purdue conferences on those who attended. The debates, of course, led to even further investigation of the nature of the slave system and what it meant for those enslaved.

The contrast between the ante-bellum south and the southern economy after the Civil War has produced a vast array of cliometric analysis as scholars sought to understand the source of the disparity. Was it the result of a slave system? Was it due to lack of industry, lack of education, low migration, or an over reliance on cotton? Was it due to Jim Crow laws, racism and discrimination? Roger Ransom and Richard Sutch (1977) investigated the role played by share tenancy, debt peonage and labour effort. Gavin Wright (1978, 1986) focused on the separation of the southern

labour market from the national market, while Robert Margo (1990) examined the implications of the low educational investment within the region.

The questions that people asked and how they answer them depended not just on having a theoretical framework or a data set but also on the means to organize and manage that data. In a fascinating interview with Jonathan Hughes, he talks about the role played by computers in the early days of cliometrics. Fogel also comments explicitly on the impact of the more recent dramatic increase in computing power on the building of large health and intergenerational data sets. This work has sharpened our understanding of the well-being of individuals and of their standards of living, to the impact of increased longevity on national welfare. The development of computing power allows us to create much larger and better data sets. Improvements in software have enhanced our capacity for statistical analysis. While statistical analysis and econometrics does not necessarily define the work as economics or cliometrics, the purpose of the analysis does. The Fogel interview very clearly illuminates how knowledge in the field of cliometrics was over the past five decades has evolved.

If slavery was the debate of the 1970s, then the British Industrial Revolution was the debate of the 1980s. Even if it did not play out on in the public arena, it was no less intense. Lyons, Cain and Williamson (32) note that ‘‘much ink has been spilled debating the applicability of that metaphor, but more… has been the ink spilled to measuring the phenomenon.’’ The standard of living debate in England predates the cliometric revolution and was at the heart of earlier Marxist debates on the role of industrializationanditsimpactontheworkingclass.Buttheimpactoftheindustrial revolution on the conditions of the working class was a question that, at least in some basic form, needs to be answered by measurement. Based on new data on workers wages over the decades of the industrial revolution, Peter Lindert and Jeffrey Williamson (1983) declared that the optimists had it right and that workers benefited from the industrial transformation. The debate that ensued revolved around the quality of the data on the one hand and on a search for alternate ways of estimating the standard of living, such as anthropometric measures on the other hand. The focus on the data ultimately came to rest on the cost-of-living index used, as seen in Feinstein (1998) who argued for a perpetuation of pessimism.

In his interview with Charles Feinstein, Mark Thomas, in discussing a Purdue Clio conference that Feinstein attended, asked him if there were any ‘glimmerings of a similar revolution in Britain?’ Feinstein’s reply raises important issues of what we understand by the meaning of cliometrics:

I’ve always thought that the Americans needed the cliometric revolution, because their work had lacked quantitative analysis entirely; whereas in Britain, we’d had a very long tradition of it. This was not cliometrics in the shiny sense that it developed in America, with neoclassical economics and econometrics at its core, but it was deeply quantitative, in terms of measuring what had happened and making the numbers the basis for analysis(LCW:293).

What is also evident in a number of the interviews is that if we were to take much current and past work and use a strict definition of cliometrics, much work might not fit. Yet most would agree that that work was cliometrics or in the cliometric tradition. Feinstein went on to say, in what must be a classical understatement that his contribution was not cliometrics as he was involved ‘‘primarily in providing the data, not in testing hypotheses’’ (LCW: 294).

Around the same time, other cliometricians were challenging the extant understanding of the pace and rate of growth during the Industrial Revolution or the transition to modern economic growth. They challenged the perceived take-off of the 1780s. In two separate papers in the early 1980s and then in a series of joint-authored work, Knick Harley (1982) and Nicholas Crafts (1983) challenged the pattern of growth as laid out in the work of Deane and Cole (1967), and Hoffman (1955). In particular, they asked whether it could have been the case that industrial growth increased as dramatically as thought over the transition to modern economic growth. Arguing from new data and new aggregation and weighting of sectors, they stated that not only was growth more gradual over the decades of the industrial revolution but also, and as a necessary consequence, income in the first half of the eighteenth century had to higher than previously believed. Although not the intent, their work appeared to some to do away with the industrial revolution. In one of only two interviews with women, Nick Crafts interviewed Phyllis Deanein 1993. In comparison with many of the other interviews, here the questions are generally longer than the answers, and the reader is left wanting for more. For example, in being asked about the notion of a take-off Phyllis Deane, in a one sentence answer, states that she sees growth as an evolutionary process and ‘‘that it is distorting to try to turn it into a revolutionary process’’(LCW: 138).

As the Editors note, many results in cliometrics come from the application of theory, measurement and new data to answer is sues of history. But as becomes clear from these essays, some work focused more on the issue of measurement, some on the application of theory and some on the derivation of new data. The importance of new data is especially clear in the interview with Anna Schwarz, interviewed by Eugene White. In a series of questions about her work with Milton Friedman, she notes that when Friedman came to the NBER in the early 1950s, Arthur Burns decided they should work together. Their influential book also grew out of the work being done at the NBER on cyclical behaviour of different economic processes. It was ‘‘our assignment at the National Bureau to study the cyclical behaviour of the money estimates. Our plan was to begin with a narrative…’’ (LCW: 78–80) A Monetary History of the United States, 1867–1960 was published in 1963. The arguments in the book have led to both challenges and new foundations within the field and have generated countless papers both by those who would call themselves economic historians and by monetary theorists. Indeed, the stock market boom, banking panics and bank failures have continued to be a laboratory for those thinking about finance, the role of money, the banking system and regulation. Yet what stands out from this interview is the importance of new data. As is noted a number of times in the volume, little credit is given to the generation of new data, but these data are the bedrock of the discipline.

5 The present and the past

In a session held by the American Economics Association to celebrate Cliometrics at 40, Claudia Goldin (1997) argued that the issues of today and not the canons of previous scholarship must and do motivate current economic history. Indeed, the work that has been conducted with respect to the US monetary, financial and banking system is very much in line with Goldin’s assertion that cliometrics has become a discipline that understands ‘‘the present through the past.’’ In the same session, James Heckman wrote that he had to venture into economic history to ‘‘sort out the roles of private choice, public constraints, market forces, and social interventions in accounting for black economic progress.’’ Heckman argues that the evidence ‘‘confirms the central importance of

recent and remote government policy and social activism in shaping African American destinies'' (1997:406–7).

Focus on government, legal structures, property rights and institutional arrangements, stems from the work of economic historians, most notably Douglass North (1973, 1997). The persistence of norms, laws, traditions and organizations dramatically shape the ways in which economies and countries develop. North has been instrumental in tying together the role of institutions to economic performance. This link is one which now permeates current attempts to understand the growing divergence between different regions in the world: developed north and lagging south. That the initial institutional structures of these various regions could be responsible for current non-performance is explored by growth theorist and macro economists with Robert Hall and Charles Jones (1999) arguing that some countries produce more not because they have better physical or human capital but because they have better social infrastructures. In another much cited paper, Daron Acemoglu, Simon Johnson, and James Robinson (2001), explore the colonial origins of comparative development and state that the type of colonial government determined the future fate of the region. A region could get 'good' or 'bad' institutions. Thus, again the past matters.

Work being conducted at the Center for Population Studies at the University of Chicago shows how vitally important it is to have along term perspective. Using union army records, census records and city records, the group has been able to highlight the role of disparities in socioeconomic status and health over an individual's life. These disparities have implications for changes in mortality and health trajectories at older ages. They have also been able to explore and show the role played by nutrition for future life outcomes. As Fogel has written such research ''provide[s] substantial insights into the causes of the twentieth century decline in disabilities, and provide a firmer basis for forecasting the course of health and longevity in coming decades for both rich and Third World countries'' (CPE newsletter summer 2006). In another recent example, Douglas Almond(2006) has shown the long term impact of the 1918 influenza pandemic. Based on data from the 1960 and 1980 US censuses, he found that those cohorts in utero during the pandemic had reduced educational attainment, increased rates of physical disability, lower income, lower socioeconomic status, and higher transfer payments compared with other birth cohorts. All of this shows the importance of investments in foetal health for human capital. But it is only the historical perspective and the availability of data that allows policy makers to understand the relationship between better policy and better outcomes.

Issues of food security in a world of rising food prices are problematic and create thepossibilityofhungerandperhapsstarvationformanypeople.Suchproblemscan and perhaps might be exacerbate by changes in global weather which could lead to reduced harvests in many African countries and in developed countries generating the threat of famine. Influential work by Amaryta Sen and recent work by Cormac Ó Gráda (2007, 2009) on famines and the nature of famines in history will inform NGOs, governments and policy makers on how best to handle the looming problems. Ó Gráda argues that most famines today, thanks to the globalization of disaster relief, tend to be 'small', and are due less to malfunctioning markets than human agency, in the form of poor governance and civil strife, theft and corruption.

The accumulation of all this research shows that neglect of the long-run consequences of famines has almost certainly underestimated their human and economic cost and neglect of malnutrition today will have serious consequences on people tomorrow and on national growth.

Using the past to understand the present is fundamental for the generation of better policies. Without a doubt, work on health, nutrition, famine and intergeneration transfers will shape or rather should shape governmental and non-governmental responses to development issues today. But I would argue that we also need to understand the past on its own terms. If we do not, we run the risk of cherry picking issues that we think have implications for the present.

Economic historians, however, continue to be interested in one of the primary drivers of the field: measurement. There is once again a growing interest in the collection of new data. The Global Price and Income History group was created to advance our knowledge of the people's material lives over many centuries. Organized by Peter Lindert from the University of California at Davis, this large group of economic historians seek to understand material life of all people from all continents from 1200 to 1950. To do so requires data. The data collected will in time both expand our knowledge of the past but perhaps even more importantly will allow for the very type of analysis that occurred at the birth of the cliometric revolution. Already, these data have changed our understanding of the Great Divergence through direct comparison of real wages in western Europe, areas of China and parts of India. This is a collaborative effort and the data collected are publicly available from the Global price and Income History site http://www.gpih.ucdavis.edu.

6 Conclusion: whither the camels

Lyons, Cain and Williamson see the future of the discipline as one under threat. I see the future of cliometrics as a positive and expanding one. Cliometrics as a form of economic history is practised not just in North America but in universities on every continent. It is also a form of economic history that has expanded the range of ways in which it asks and answers questions. From an initial position of looking at questions through the lens of optimizing behaviour, there has been a definite growth in the range of theoretical tools which has both resulted in and the result of an expansion in the types of questions addressed. Economic historians now use game theory, models of asymmetric information and behavioural economics to understand the conduct and behaviour of agents and the development of institutions broadly defined through time. Sometimes the modelling is formal, but other times, it is informal merely laying out the issues at hand. The growth in tools reflects the development of economics itself as a discipline and as new tools are added to the economists toolkit, so too are they used to expand the range of questions addressed by economic historians. Along with the expansion of theory tools has been the dramatic expansion of econometric techniques and in the availability of cheap and large computing power. These tools have expanded the types of questions that are examined and analysed by economic historians and allowed a re-examination of some of the issues that were of interest at the start of the Cliometric Revolution. To take one example, following in a tradition set by Simon Kuznets, the work of Thomas Piketty and Emmanuel Saez (2006, 2007) draws on a century of income tax data in an attempt to understand the evolution of income and wealth. New data, new theory and enhanced computing and statistical tools are the same confluence of forces that occurred in the 1950s.

There has also been a concomitant growth in the number of journals publishing both economic history and cliometric history, not to mention publication of economic history papers in general interest journals in economics. In North America, the *Journal of Economic History* was always open to this more formal methodology and the cliometric approach came to dominate the types of articles. In the British *Economic History Review*, about one-third of the articles are of this form.

Explorations in Entrepreneurial History, later renamed *Explorations in Economic History* could be considered, to quote LCW, the ‘‘house publication’’ of cliometrics. The *European Review of Economic History* has been appearing since 1997, and now there is also *Cliometrica*, the international journal of the *Association Française de Cliométrie*. There has also been a growth in the number of international conferences and in speciality one- or 2-day conferences focussing on specific thematic issues. All of these show the health and dynamism in the field. Of course, the field can only ever be as good as is the pipeline of graduate students. Here again the numbers of graduate students attending the Economic History Association Meetings, the Economic History Society Meetings or the annual Cliometric Conference, is strongly positive. Thus measured by growth in the number of venues, the number of papers and numbers of conferences, the number of graduate students, the field is healthy.

Has there, however, been a price to pay? The divide over the issue of quantification which became highly charged with the cliometric revolution in the early 1960s persists in North America to this day. A focus on a cultural approach to history has reduced the level of quantification to extremely low levels in many North American History Departments. This has occurred at the same time as a shift in economics, reflected too in economic history, towards even greater levels of formalization makes it more difficult to speak to non-specialists. There seems to be little in the way of bridges across the divide in North America. Although there are exceptions, many historians in US history departments do not spend much time talking to economic historians. But I think we sometimes fail to understand that even within many US history departments there are internal divisions; Americanists might not often talk with their own Europeanists colleagues. A small but growing number of cross departmental appointments suggests one way of breaking through some of the barriers in the US. In other parts of the world, social and business historians in history departments are very willing both to quantify and to talk to and with economic historians and on the other side, economic historians are willing to talk to and learn from business and social historians. At the end of the day, however, groups have to want to talk and learn from each other.

Reflections on the Cliometrics Revolution is worth reading. As history of economic thought disappears from the list of course offerings, the long introductory chapters focus the reader on both a timeline of events and the intertwining of various traditions that culminated in the Cliometrics Revolution. The authors have also developed an extremely useful forty page bibliography. The interviews presented here and the short introductions to each segment are intrinsically fascinating and all deserve to be read carefully. Given the original purpose of these interviews, each interviewer asked different sets of questions. In putting the interviews together in this compendium, it becomes clear that a subset of common questions would be very useful and shed more light on some of the issues that the editors raise. Reading these interviews together makes it very clear that while everyone understood that there was a cliometric revolution, each person saw the intrinsic elements of that revolution a little differently. There may be a single definition that defines the work, but rigorously applying that definition would be a mistake. These interviews make clear that Cliometrics is a much broader and open-ended that any single definition can capture. The focus of this volume calls for a parallel volume on the Continental traditions in economic history.

Acknowledgments There are, of course, many themes, debates, discussions which merit attention in any survey of the last 50 years of Cliometrics. No short review essay can do justice to all the work and all the workers. I thus apologize to those whose

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