J. S. Mill's Criticism for Robert Torrens' Reciprocity in International Trade

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I. Preface

It is well known that Mill firstly developed his idea of international trade in the EssayIof his Essays on some Unsettled Questions of Political Economy (1844) in which he expands David Ricardo's theory of comparative cost to the theory of reciprocal demand in order to determine the terms of trade.

However, in the Preface to his Essays, Mill firstly referred, not to Ricardo, but to Robert Torrens. He gives him high marks for 'the controversies excited by Colonel Torrens' Budget have again called the attention of political economists to the discussions of the abstract science,' and claims that Torrens developed the original concept and Mill elaborated the fundamental doctrine. In the commonly accepted view, the abstract science referred to by Mill should be the theory of reciprocal demand, but we have some questions: Why did Mill not refer to Ricardo's theory of comparative cost as the abstract science? What is the abstract science which Torrens developed? And, what kind of theory did Mill elaborate?

In Mill's Essays, there are two types of theories for analyzing international trade. One is the theory of supply and demand, and the other is the theory of reciprocal demand. Mill expands these theories into the analysis of his Principles of Political Economy.

Mill refers to Torrens in relation to the theory of supply and demand which was applied to the analysis of the effect of the tax on export and import. Mill analyzed the change in the monetary amount of import or export in relation to the shape (or elasticity) of demand curves if the tax is imposed on the import goods or export goods. This analysis considers the advantage for a single nation, not for the world. On the contrary, Mill refers to Ricardo in relation to the theory of reciprocal demand. He analysed the increase of the global production based on the theory of comparative cost, and its distribution between nations based on the theory of reciprocal demand. This is for the advantage of the world. In addition to the economic advantage, Mill also raises the issue of 'intellectual and moral' advantage.

In this paper, we concentrate on Mill's discussion of Torrens' reciprocity in relation to tariffs and make it clear how was Mill's analysis of tarrifs.and how Mill considered about the position of it in international trade.

II. Torrens' Reciprocity and Mill's Position

Mill described in the Preface to his Essays that these essays were written in 1829 and 1830, and ‘now published･･･under the impression, that the controversies excited by Colonel Torrens’ *Budget* have again called the attention of political economists to the discussions of the abstract science.’ It is clear that the EssayⅠis concerned with the problems discussed between Torrens and his opponents. Mill then added that the opinion in the EssayⅠis ‘identical in principle with those promulgated by Colonel Torrens’ and that he (Mill) ‘cannot claim to himself the original conception, but only the elaboration, of the fundamental doctrine of the Essay.’[1]

What are the controversies excited by Colonel Torrens’ Budget? Professor Irwin’s discussion will probably be a good reference for that point.

Torrens favoured the reciprocity in international trade against the unilateral free trade which the Manchester school favoured. As Prof. Irwin demonstrated, Torrens ‘described conditions under which a tariff could benefit a country by making the ratio at which it exchanged its products with the rest of the world—the terms of trade, or the purchasing power of a country’s exports in terms of the import it can procure—more advantageous.’[2] And, ‘his strident and controversial criticism of unilateral free trade and advocacy of reciprocity in 1840s triggered a sharp debate among economists.’[3] He concluded that ‘despite the only rudimentary understanding of the determinants of the terms of trade, Torrens gradually came to discover that a country could shift the terms of trade in its favour by imposing a tariff. He used this theory to argue that tariffs should not be reduced unilaterally, as this would adversely affect the terms of trade, but in conjunction with other countries acting similarly under a policy of reciprocity.’[4]

In brief, the controversy that Torrens raised was concerned with tariffs, and he argued for a policy of reciprocity. But, for Mill, it is a one-sided argument. Then, what kind of argument on tariffs did Mill present? We will consider his analysis.

Mill’s point of view in the EssayⅠis that imposing a tariff does not always make the terms of trade advantageous for the home country, and that the change of the terms of trade depends on the price elasticity of demand. He considered the effect of the tax on the export by using the demand analysis as follows.

III. Mill’s Analysis of Tariffs and criticism for reciprocity

1. Mill’s analytical tools

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[1] John Stuart Mill, *Essays on Some Unsettled Questions of Political economy (1844)*, Vol. Ⅳ of *Collected Works of John Stuart Mill, Essays on Economics and Society by John Stuart Mill*, 1824-1845, Introduction by Lord Robbins; Textual Editor, J. M. Robson (Toronto: University of Toronto Press; London: Routledge & Kegan Paul, 1965), p.231.

[2] Douglas Irwin, *Against the Tide: An Intellectual History of Free Trade*, (Princeton University Press, 1996), p.100.

[3] *Ibid*., p.102.

[4] *Ibid*.

Suppose that England taxes her export of cloth: the tax not being supposed high enough to induce Germany to produce cloth for herself. The price at which cloth can be sold in Germany is augmented by the tax. This will probably diminish the quantity consumed. It may diminish it so much, that even at the increased price, there will not be required so great; a money value as before. It may diminish it in such a ratio, that the money value of the quantity consumed will be exactly the same as before. Or it may not diminish it at all, or so little, that, in consequence of the higher price, a greater money value will be purchased than before.

After introducing money, Mill discusses the tax. Here, we consider the patterns of the effects of an export tax on the change of the balance of trade. The theory for this analysis is, not the theory of reciprocal demand, but of supply and demand.

Based on the price elasticity of demand (*e*), Mill sets these 3 types of demand curves[5].

(1) $e=1$ （D_1） : 'It may diminish it in such a ratio, that the money value of the quantity consumed will be exactly the same as before.'

(2) $e>1$ （D_2） : 'It may diminish it so much, that even at the increased price, there will not be required so great; a money value as before.'

(3) $e=0$ or $e<1$ （D_3） : 'it may not diminish it at all, or so little, that, in consequence of the higher price, a greater money value will be purchased than before.'

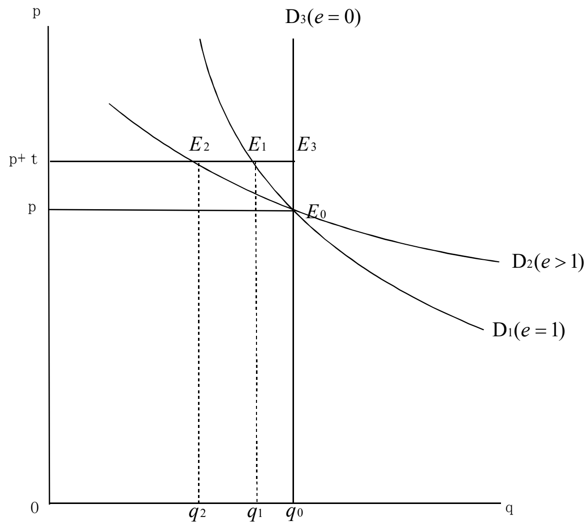


Fig. 1

Next, we consider the supply and demand theory, using the graphical approach. If England imposes the export tax (t) on Cloth, the price of Cloth increase to (p+t), then the quantity demanded by Germany will decrease. The problem is to determine the change in the total expense

5 Mill,*Essays*,pp.245-46,and John Stuart Mill, *Principles of Political Economy, with Some of Their Application to Social Philosophy*, Vol.Ⅲ of *Collected Works of John Stuart Mill*, BookⅢ－Ⅴ and Appendices, Introduction by V. W. Bladen; Textual Editor, J. M. Robson (Toronto: University of Toronto Press; London: Routledge ＆ Kegan Paul, 1965),p.851.

of Germany which is equivalent to the monetary amount of England's export. Mill sets the three cases depending of demand curves, D_1, D_2 and D_3 in Fig.1.

According to these 3 types of demand curves, Mill refers to the change of money flow and changes of prices in both countries.

Firstly, if the German demand curve is D_1 (the price elasticity of demand is 1), the monetary expense of Germany is not changed, and the balance of trade remains unchanged.

Secondly, if the German demand curve is D_2 (e>1), the amount of money expended by Germany decreases, and trade becomes unequal. Money flows out from England to Germany. As a result, the price of Cloth exported by England becomes lower than before, and the price of Linen exported by Germany becomes higher, then the trade is going to balance again.

Finally, if the German demand curve is D3 (e=0), it moves in the opposite direction. The amount of money expended by Germany increases, and trade becomes unequal. Money flows out from Germany to England. As a result, the price of Cloth exported by England becomes higher, and the price of Linen exported by Germany becomes lower, then the trade balances.

By the graphical approach, we can recognize the fundamental premise of this Essay: the change in the amount of exports and imports depend on the theory of supply and demand and thus the change of monetary amount of import and export depends on the elasticity of demand.

2. Taxes on Export Goods

Torrens advocates a policy of reciprocity based on the third case in which England can get the greatest advantage from the trade. Mill demonstrates the third case as follows.

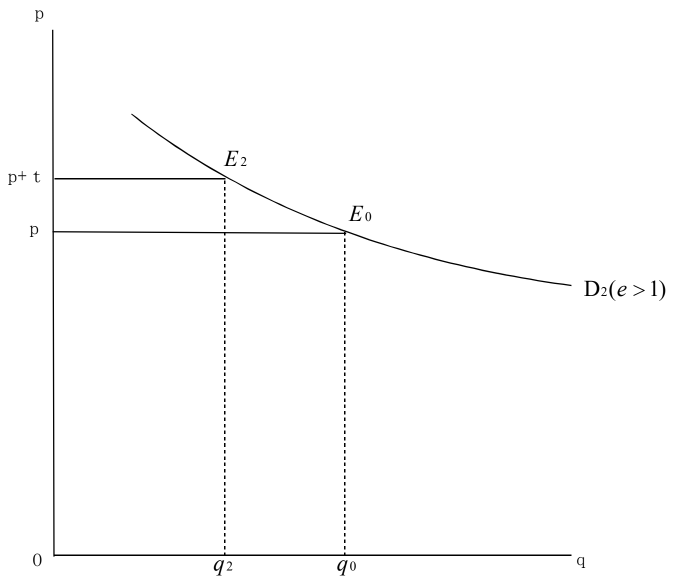
> In this last case, England will gain, at the expense of Germany, not only the whole amount of the duty, but more. For the money value of her exports to Germany being increased, while her imports remain the same, money will flow into England from Germany. The price of cloth will rise in England, and consequently in Germany; but the price of linen will fall in Germany, and consequently in England. We shall export less cloth, and import more linen, till the equilibrium is restored. It thus appears, what is at first sight somewhat remarkable, that, by taxing her exports, England would, under some conceivable circumstances, not only gain from her foreign customers the whole amount of the tax, but would also get her imports cheaper. She would get them cheaper in two ways,—for she would obtain them for less money, and would have more money to purchase them with. Germany, on the other hand, would suffer doubly: she would have to pay for her cloth a price increased not only by the duty, but by the influx of money into England, while the same change in the distribution of the circulating

medium would leave her less money to purchase it with[6].

This case is most favorable for England, but one of these three cases which could be happened. Mill also showed the worst case for England in which Germany's demand for Cloth has D_2 (e>1) as Fig.2-1 and England's demand for Linen produced in Germany has D_3 (e=0) as Fig.2-2. Mill assumed these circumstances as follows.

> Suppose, as before, that the demand of Germany for cloth falls off so much on imposition of the duty, that she requires a smaller money value than before, but that the case is so different with linen in England, that when the price rises the demand either does not fall off at all, or so little that the money value required is greater than before[7].

In this case, firstly money will flow out of England to Germany and raise the price of linen from p to p' in Fig.2-2 in Germany and consequently in England. Therefore, the higher the price, the greater the money value of the linen consumed. The balance can only be restored by the effect of the fall of cloth in the England and consequently in the German market.[8]



Fi g . 2-1 Germany Demand for Cloth

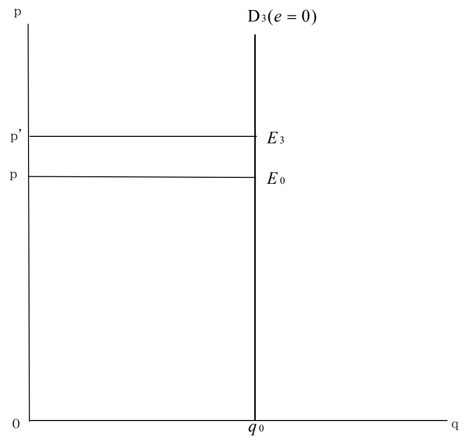


Fig. 2-2 English Demand for Linen

Mill's point of view in the EssayIis that imposing export tax does not always make the terms of

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[6] Mill, *Principles*, p.851.
[7] *Ibid*., p.852.
[8] Cf. *ibid*.

trade advantageous for the country, and that the change of the terms of trade depends on the price elasticity of demand.

In this way, we can recognize that the fundamental doctrine referred to by Mill in his Preface of Essays means the analysis of the change of the amount of export and import depending on the theory of supply and demand. He further showed the change of monetary amount of import and export depends on the elasticity of demand. Therefore, Torrens is the originator of the conception of the fundamental doctrine, and Mill elaborates this fundamental doctrine.

Additionally, the analysis of the effect of tax is, not for the advantage of the world, but for a single nation. So, In his *Principles of Political Economy*, Mill put the discussion of tariffs into the Section 6 'effects produced on international exchange by duties on exports and on imports'

3. Taxes on Import Goods (not included)

IV. Concluding Remarks

Torrens insists the reciprocity, in the case of taxes on export goods, based on the third case (D_3) in which England can get the greatest advantage from the trade. But, for Mill, this case is not the necessary, but one of the cases which could be happened. Mill's point of view in the EssayIis that imposing a tariff does not always make the terms of trade advantageous for the country, and that the change of the terms of trade depends on the price elasticity of demand.

In this way, we can recognize the fundamental doctrine referred by Mill in Preface means the analysis of the change of the amount of export and import depending on the theory of supply and demand. The reason why Mill insisted that he completed that doctrine is because he showed the change of monetary amount of import and export depends on the elasticity of demand. Therefore, Torres is the original conception of the fundamental doctrine, and Mill is the elaboration of the fundamental doctrine. Additionally, the analysis of the effect of tax is, not for the advantage of the world, but for a nation.