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ΣK = 0.244 (0.69)  
ΣD = 0.88  
ΣS = 0.298 (3.31)  
D.W. = 1.86  
ΣS = 0.297 (1.86)

The numbers in parentheses are absolute values of t-statistics.

These results imply that the relative impacts of monetary and fiscal actions depend on the stage of a country’s development. In the large rural economy of India, with a limited degree of monetization, the government sector plays a dominant role. Changes in the expenditures and revenues of the government have a significant impact on various sectors of the economy and thus on national income. In contrast, changes in monetary policy influences only the small monetized segment of the national economy. Hence its influence on national income is relatively small. The empirical results support Darrat’s finding with respect to the dominance of fiscal policy in developing economies, although it is relevant to note that the Indian economy is different in many ways from the Latin American economies.

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Jacob Vanderlant

and the Roots of Supply-Side Economics

James Barney Marsh

Against the background of a public which had grown somewhat skeptical of the efficacy of economic theory and policy, the recent astute rise of the Supply-Side School is something of an anomaly. Although this is not the first school to have been so widely discussed in the popular, business, and intellectual press, it may be the first to have become popularized so early in its career. Economists, of course, have been quick to counter the resulting impression of novelty by carefully documenting its historical roots. Thus, we learn that many of the major names, Hume, Smith, Say, Ricardo, and both Mills, were, in fact, supply-side oriented and should be accredited in the school’s genealogy. Through concentration on the major names, however, the distorted view may be promoted that the minor figures of political economy were of little importance.

One such figure, Jacob Vanderlant, is particularly worth of recognition. Vanderlant was a retired British merchant who, in 1734, published a remarkable book entitled Money Answers All Things. That sums up all we know about him. His book failed only slightly better in the memory of history, and now is only briefly mentioned in most of the widely used histories of economic thought. Vanderlant did not lack influential champions. Marx and Engels in the Nineteenth Century and Viner, Schumpeter and Vickers in the Twentieth were particularly supportive. Marx and Engels would have us believe that Hume was deeply indebted to Vanderlant, especially for his theory of the balance of trade and, in fact, may have shamelessly plagiarized him. Viner and Schumpeter on the other hand, were more impressed with Vanderlant’s close approximation of the price-species flow mechanism, shortly before it had been perfected by Hume. Vickers finally rescued Vanderlant from overemphasis of the balance of payments by discussing his more general macro-economic theory, of which the foreign sector was but a part. In Vickers, we can appreciate for the first time that Vanderlant’s theory absolutely depends upon a larger stock of money, stemming from a favorable

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balance of trade, to induce the consumption demand that is necessary to overcome his assumed underemployment equilibrium.

Ironically, it was an apparent misreading of Vanderslind, in particular, a failure to grasp the fundamental role of the supply-side elements in his theory, that led some economists to overemphasize the foreign sector in the first place. In fact, without the unleashing of domestic supply-side forces, Vanderslind's equilibrating specie flow system could not possibly have functioned as well as to convict Hume of plagiarism, or to have "hit the nail on the head" in the theory's long "struggle into existence".7

This having been said, the reader is well aware that the objectives of this paper are to document the significance of Jacob Vanderslind in the development of supply-side economics, and to promote a more balanced judgment of his contribution to the price-specie flow mechanism.

II

Vanderslind's macroeconomic model is grounded on his remarkable powers of observation and comprehension of current events and his unusual, practically trained understanding of the dynamics of supply and demand. He observes, or believes he observes, that England is stuck in an underemployment equilibrium in which vast amounts of capital (empty houses, land (unenclosed wasteland) and labor (hammers and peddlers) are unemployed. Hence, because of the shortage of enclosed and cultivated land, wage goods (victuals and drink) are scarce and expensive, causing the subsistence wage to be relatively high. In the international arena, the relatively high labor cost has led to balance of payments deficits and therefore a shortage of money. Finally, to complete this cycle, the shortage of money has depressed aggregate demand thereby contributing to the unemployment in all sectors.8 The shortage of money, alone, contrary to the quantity theory of money and the price-specie flow mechanism, is not sufficient to be developed by Hume, is unable to lower the price level which would re-equilibrate the system at full employment. The ultimate culprit is the shortage of cultivated land which determines high prices for wage goods and therefore above equilibrium wages.

The solution Vanderslind calls for is initially a supply-side stimulus, i.e., one that would increase aggregate supply. This solution is to provide sufficient incentives to land owners to enclose and bring into cultivation additional land to induce a reduction in rents per acre, an increase in the supply of, and therefore reduction in the price of wage goods, a concurrent reduction in the subsistence wage rate (in nominal but not in real terms), and hence a reduction in the price of manufactures. Through this route, English goods are to become more competitive in world markets, resulting in a balance of trade surplus and an increase in the supply of money. This scenario fully sets the stage for the introduction of aggregate demand-side forces which will induce the desired changes. The increase in the volume of net exports alone would provide additional aggregate demand for English goods. Much more important, however, is the enlarged stock of money which can be depended upon to "answer all things", i.e., to provide enough additional aggregate demand to "bring vast business to our people, and furnish than with employment and happiness."9

resulting full employment, macrodynarnic equilibrium is, of course, the ultimate objective of Vanderlind's efforts.

III

The only missing supply-side element in this scenario is a clear, unambiguous discussion of the incentive effect of tax reductions. One is tempted instead to emphasize the analogy between the vast tracts of unenclosed wasteland in Vanderslind's England, and the vast tracts of federal land in the contemporary United States. In both cases, the goal of enclosure (or the sale of development rights) is to increase the supply of, and therefore reduce the cost of, primary inputs (land or energy and minerals). Thereby, we would promote economic growth and improve the balance of payments.

The major weakness in Vanderslind's model is the failure to specify a mechanism of incentives whereby the expansion of enclosure and cultivation could become a reality. Part of the problem may reside in his fixation on existing institutional arrangements in which the newly enclosed land would be owned by a landlord and cultivated by a tenant. Hence, some proportion of incentives would fail, due to differing interests. For example, although Vanderslind was concerned with reducing production cost functions, he saw a policy of general rent reduction as insufficient. The lower rents would be an incentive to tenants, who would produce more on the existing land, and a disincentive to landlords, who would resist further enclosure. Hence, although more victuals and drink may be supplied, it would not be enough to boost the country out of the underemployment equilibrium.10

Vanderslind's major tax policy proposal, however, contains many of the ingredients of an incentive-based tax reduction. The proposal is to phase out the taxes on goods while adjusting the tax on land to meet the landlord's revenue requirements.11 His position is based on three supporting arguments. First, Vanderslind argues that the elimination of taxes on goods would result in higher rents accruing to landlords. This conclusion depends upon the assumption that the stock of money, not the tax rate, determines the prices of goods; hence, they would remain unchanged. Under a well-functioning gold standard with England as a price-taker there is, of course, nothing wrong with this assumption. However, those conditions may not have been factually accurate. With unchanged prices, tenants would begin enjoying a larger net surplus, the increase being equal to the amount of taxes they no longer have to pay. Finally, the forces of supply and demand would see to it that this increase in net surplus could end up in the hands of landlords as an increase in rents. By use of this chain of reasoning, Vanderslind argues that all taxes, whether on goods or on land, would be passed on to landlords anyway. Hence, a single land tax seems logical to him. The second argument is that goods taxes are much more expensive to collect than land taxes. He estimates that the overall bureaucratic and other costs of collecting taxes on goods would be at a level about forty times that of collecting taxes on land.12 A desirable effect of eliminating the taxes on goods would be that a very large number of tax officials would be discharged and therefore able to begin a more productive working life in the economy. These workers would, in fact, be necessary to the successful implementation of Vanderslind's land policy.13 Finally, in a passage that clearly presents the incentive argument for tax reductions, Vanderslind states:
"...that the advantages that will arise to trade by taking the taxes off goods, must be measured by the inconveniences which the taxes on goods occasion to trade; and as these are felt by all to be prodigiously great, so the advantages which will arise to trade by taking the taxes off goods must be found by all to be prodigiously great too, since they are opposites that just equal each other."14

On the next page, Vanderlant goes on:

"And hence I conclude it needful, in order to carry this proposal (his land policy) as far towards the end proposed, as the nature of things will admit, that the taxes should be as gradually taken off goods, and all the officers in the publick revenue, as gradually discharged, as this proposal can be executed."15

Hence, the object is to increase gradually the amount of land enclosed and in production, gradually eliminate the taxes on goods in favor of a simple land tax and gradually transfer labor from the tax collection offices to industry and agriculture. In the context of the macroeconomic model, these gradual changes would yield gradual reductions in wage goods prices and wages, a gradual increase in the nation's money stock through the balance of trade and the much desired gradual increase in consumption demand which would justify the initial supply increases. Hence, incentives would continually appear that would justify another round of gradual changes as long as they were deemed necessary.

The impact of the land policy alone, without the proposed tax structure changes, would be significantly beneficial. However, the result will be even better if the land policy is supplemented with the "Prodigiously Great" incentive effects of reduced taxes on goods. As was pointed out above, Vanderlant did not believe that a reduction in agricultural cost functions through any reductions would shake the country from its unemployment equilibrium. Therefore, it is reasonable to conclude that he would not have believed that reducing costs through the tax policy, without the simultaneous implementation of the land policy, would be sufficient to do the job. The two would have to supplement each other. Nevertheless, we have here a clear statement that the incentive effects of a tax reduction would be powerful enough to significantly reduce unemployment, even if not powerful enough to eliminate it.

To complete this section on tax policy, we must investigate Vanderlant's views on the resulting impact on revenues. Vanderlant was deeply concerned with this question and discusses it in several passages. First, with respect to the land policy alone, he feels that the resulting general price level reduction would increase the real value or purchasing power of government tax revenues at any level of tax collection.15 Secondly, because there would be so many additional enclosed acres of land on which rent would be earned, and so many additional units of output, revenue in nominal terms would also be enhanced. Although the level or rent per acre and of prices per unit of output would be lower, thereby bringing down the tax revenue per acre or unit, the increase in quantities would more than offset these reductions.17 Hence, the government could reduce taxes without any necessary reduction in revenues.18

This argument is further strengthened in Vanderlant's discussion of the proposed phasing out of taxes on goods. This proposal, he argues, would enable the government to collect the same revenue from a tax of 20% on land (7 shillings on the pound) as it could from a tax of 4% on goods (7, 8, or 9 shillings on the pound).19 Once again, taxes could be reduced without jeopardizing revenue. In this same passage, Vanderlant adds that the net effect on rents per acre, after having been reduced by the expansion of enclosures and increased by the elimination of taxes on goods, and reduced again by the adjustment (if upwards) of taxes on land, would be insignificant.20

Because of the length and complexity of this section a brief summary is in order. Vanderlant calls for expanded enclosure and a shift of the burden of taxation from goods to land. The result would be a significant increase in total output, a reduction in the volume of public debt and in the size of the tax office bureaucracy, lower overall tax rates, and an increase (or no change if taxes are reduced) in tax revenues. The explicitly supply-side elements include the incentive effect of lower tax rates on goods and the expansion of revenue as a result of the combined policies.

IV

Because Vickers thoroughly discusses Vanderlant's monetary theory, there is no need to be repetitive here.21 However, in the interest of clarifying the similarities between his thought and that of the supply-side school, the major points should be underlined. First, Vanderlant, like some modern supply-siders, fully supports the gold standard. For him, it is not even an issue. Secondly, again like the supply-siders, Vanderlant supports tight monetary policy. His version of tight money is opposition to the issue of paper currency as a substitute for specie. By so doing, he feels, England would drive up her prices, deteriorate her balance of payments, lose gold to foreign nations and accomplish nothing in the solution of the underemployment equilibrium problem.

However, Vanderlant strongly desires an expansion of the money supply of 1 will take place as a result of his supply-side enclosure policy. Hence, if aggregate supply were increased as predicted, prices would fall and the real value of the money stock would rise. In addition, through the resulting balance of payments surplus, the nominal stock of money would also be increased. From this point in his analysis, Vanderlant clearly shows his understanding of the relationship between the stock of money, the flow of consumption expenditure and the resulting level of aggregate employment.22 In places, he sounds like a poetic demand-side monetarist, stating that "plenty of money never fails to wake trade flourish...23 and further that "...money, on which trade floats, like a tide, by ebbing and flowing, will bring vast business to our people, and furnish them with employment and happiness...24 If and only if we follow his supply-side fiscal policy.

V

We come now to the most familiar of the topics with which Vanderlant is said to have played a part, the price-specie flow mechanism. The general argument, as already presented, is simply that free trade would
present no problem so long as British goods and labor were made inexpensive through Vanderlint's supply-side policies. The general impression of historians of economics is that Vanderlint's supply-side was not so much accomplished as much as he did less than a decade later, i.e., that he had almost described a mechanism that was truly self-regulating.

However, it cannot be argued that Vanderlint and Hume held identical views on the mechanism. In fact, it is on the point of self-regulation, where they appear to be so similar, that they most significantly differ. Indeed, in reading Vanderlint's most successful passage on the mechanism, one is almost tempted to follow Marx and do some editing. Viz.,

"No inconvenience," says Vanderlint, "can arise by an unrestrained trade, but very great advantage; since if the cash of the nation be decreased by it, which prohibitions are designed to prevent, those nations that get the cash will certainly find everything advanced in price, as the cash increases among them, and ... our manufactures, and everything else, will soon become so moderate as to turn the balance of trade in our favor, and thereby fetch the money back again."

This passage is also quoted by Viner without the deletion indicated by the dots. As quoted, the mechanism could hardly be better presented. In fact, for Marx, and especially Engels, it was sufficient evidence that Hume had copied Vanderlint. For Viner and Schumpeter, it was sufficient to show that Vanderlint had successfully put the mechanism together. However, this assessment raises a vital point, the passage deleted by Marx contains a sine qua non which completely nullifies the self-regulating property of the mechanism. This passage, which should be read as the first half of the last sentence of the above quotation, is as follows: "And if we, who part with the money, make our plenty great enough to make labor sufficiently cheap, which is always constituted of the price of victuals and drink, our manufacturers..." etc.

This is further underlined a few sentences later:

"But all this does absolutely depend on cultivating such large tracts of land, as will make the plenty great enough to reduce the price of labor, and all other things in consequence thereof, so as to enable us to trade on terms as reasonable as any other nation."

In other words, Vanderlint simply does not believe that scarcity of money or indeed a falling money supply will induce the falling price level that theoretically helps determine the price-specie flow in equilibrium. This appears to be true in spite of his clear understanding of the symmetrical relationship. Still another passage reflecting his lack of belief is as follows:

Since the quantity of foreign goods we import cannot continue to be of greater value than the goods we export, because this, in the end, must exhaust all our cash, and so put an end to that excess."

Hence, the mechanism is not the least bit self-regulating but must be maintained or forced to work by way of the expansionary land policies. Perhaps Vanderlint's failure to appreciate the down side of the quantity theory is determined by his obsession with the entrenched monopoly power of the land owners, the resulting low supply of land and high wage goods prices and wages and the concomitant problems of English manufacturers in international competition. It is of course possible that Vanderlint fully understood the mechanism but felt that it was too theoretical and impractical to occupy his time. The real world as he, perhaps, saw it contained land use constraints which prevented the mechanism from working anyhow. Hence, the main concern was eliminating the constraints rather than developing theoretical models.

In summary, the most important point which distinguishes Hume from Vanderlint is that he transforms a mechanism which would not work unless regulated into one which would work best if regulated least. It seems clear that Vanderlint's contribution to the mechanism, at least to the self-regulating version later developed by Hume, is significantly overstated by the profession. It also seems clear that the overestimation stems from a general failure to fully appreciate the epistemic supply-side message of Vanderlint's book.

VI

It is, of course, fully understandable that Vanderlint's supply-side message should have been missed. Marx and Engels buried themselves with an intellectual case against Hume. Viner documented the history of the mechanism. Schumpeter was enthralled with Viner's articulate description of the theory's struggle into existence. Only Vickers 1959 work reflects full cognizance of the macro-dynamic model in Vanderlint's work and of the limited role that the balance of payments actually plays in it.

It is interesting to note that Vanderlint's obsession with his land enclosure policy prevents him from fully embracing a supply-side tax policy and from fully developing the self-regulating mechanism for the balance of payments. It is curious that Vanderlint, who understands all of the ingredients of both the Laffer Curve and the price-specie flow mechanism, was prevented from putting both of these puzzles together by an obsession with an essentially physiocratic (in his time already anachronistic) idea. However, in the historical context of the revolutionary struggle between the rising bourgeoisie, of which Vanderlint was a member, and the powerful landed class, it is understandable that he should emphasize, perhaps over-emphasize, the rationality of supply and demand and the irrationality of obstacles to it as an intellectual weapon to undercut the entrenched monopoly power of the landed gentry. Vanderlint, in his time, was a true revolutionary, a fact which certainly explains his appeal to Marx and Engels, who understood the word far better than most of their followers.

Jacob Vanderlint has been picked out of obscurity from time to time in the past and probably will be again. My purpose in this paper is to do his justice, first by improving our perspective on his contribution to the price-specie flow mechanism and secondly by attributing to him his fair
share of the credit in the genealogy of supply-side economics. He deserves to be read again and again.

REFERENCES


FOOTNOTES


5. Engels, op. cit., 222.


7. Schumpeter commented that Vanderlint had "hit the nail on the head" in his attempt to describe the price-flow mechanism, op. cit., 367. The second quotation is also due to Schumpeter in a comment on Viner's work on the historical development of the mechanism, Viner, op. cit., 71-87. Schumpeter credits Viner with "... one of the most interesting essays ever written on the fascinating theme of how a theory struggles into existence" (italics in original); Schumpeter, op. cit., 360n.

8. These economic problems are first cited in the book's subtitle and reappear throughout the book; e.g., pp. 11-12 and 16-17.

9. Ibid., 49.


11. Ibid., 107-115.

12. Ibid., 111.

13. Ibid., 113 and 114.
In a recent article in this journal, Julie Mathiæt (1983) argues that the Marxist labor theory of value is "antithetical" to the concept of "choice" and cannot theorize the freedom that economic agents have in the market place to choose consumption bundles and work activities. Thus, Mathiæt concludes, Marxist theory has not been able to deal satisfactorily with phenomena related to the different patterns of consumption and of work activity such as the existence of varied political and cultural identities within the "working class." Mathiæt concludes that Marxist theory would only be able to discuss such phenomena if it abandons the labor theory of value.

We appreciate Mathiæt's attempt to confront Marxist theory with the need to conceptualize such phenomena. But, in contrast to her view, we maintain that the Marxist theory of value is fully compatible with choice in the market place and with varied political and cultural identities.

Of course, we do not dispute that some Marxists have not produced satisfactory analyses of the political and cultural identities of economic agents. Mathiæt, however, does not note the appearance of readings of Marx's theory of value in the literature that begins to develop a non-economic discussion of differentiations within the working class (or, indeed, within any one group of economic agents). In addition, we argue that Mathiæt is unappreciative of the theoretical possibilities that Marxist theory offers to discuss market behavior, possible because she does not differentiate the structure and concepts of Marxist theory from the structure and concepts of Neo-Classical theory. If Mathiæt had argued that Marxist theory is paradigmatically incompatible with the Neo-Classical concept of choice, then we would have no objections. But, we do contest her charge that Marxist theory cannot deal with choice at all.

Mathiæt argues that, in Marxist theory, the value of labor-power (or, wages) is a given determined by the value of a given subsistence basket that workers are assumed to consume. It is the assumption of a given wage, she concludes, that precludes choice by the workers as to the contents of the subsistence basket. Mathiæt recognizes that, in Marxist theory, the composition of the wage bundle does not have to be uniform across all workers. According to her, however, even a model which assumes different

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