Austrian Economics: Roots and Ramifications Reconsidered — Part 1

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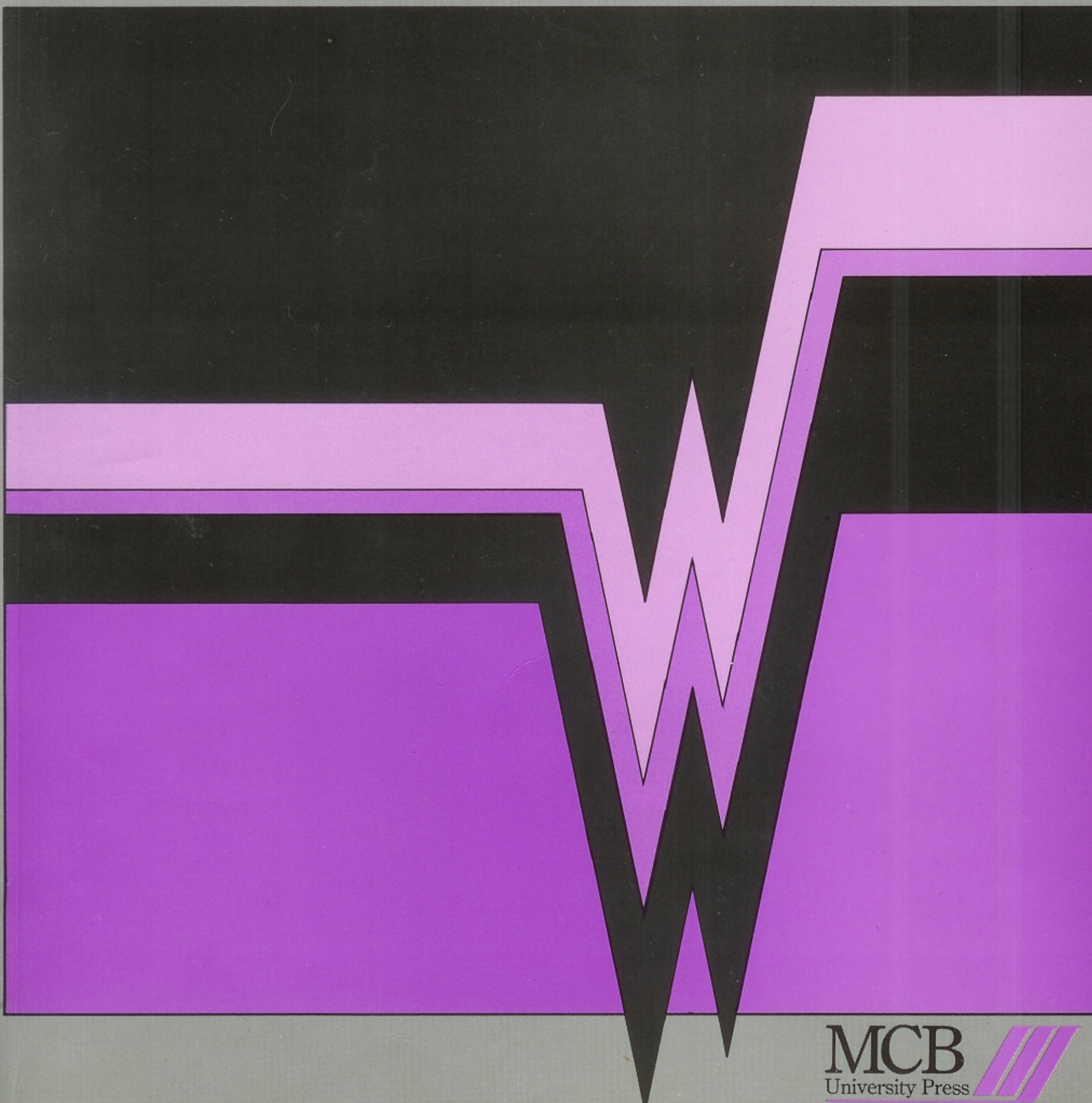

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Austrian Thinking on International Economics

by
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The epithet "Austrian" in "Austrian economics" is applied to the work of economists as far apart in time as Carl Menger, whose *Grundsätze der Volkswirthschaftslehre* (*Principles of Political Economy*) first appeared in 1871, and Ludwig Lachmann, Israel Kirzner and Murray Rothbard, writing a century or more later. It would be vain to attempt to define Austrian economics by a set of beliefs, commonly held by its adherents. There is much to be said for following Zuidema (1987), who prefers to speak of "styles" rather than "schools". This implies that there need be no clear-cut dividing lines between Austrians and the rest of the economics fraternity and that not all those dubbed "Austrian" are necessarily "typically" Austrian all of the time. There certainly seems to be a style of reasoning that can be seen as specifically Austrian. Some of the components of a "style" mentioned by Zuidema are:

- there is a set of values, of ideals which seek expression;
- there is an inspiring master who looks at values from a fresh angle and who shows the way to the realisation of those values;
- there is a combination of values and techniques that permits of tackling some problems but not of others;
- the new combination of values and techniques causes unforeseen problems that seek solution. It is a research programme. A style is not stationary but evolves in a certain direction.

What sets the concept of "style" apart from that of a "school" in a loose sense, according to Zuidema (1987, p. 199), is, first, the aspect of values and ideals and, second, a relationship between the theoretical approach and the preferred organisation of society.

The Austrian "Style"

It is not difficult to find some of the components of a "style" in Austrian economics. Austrians share a set of values, putting the protection of individual liberty against encroachment by the state at the top of their agenda. Coercion by the state should be confined to the enforcement of a number of rules. After the founding fathers, Menger, Wieser and Böhm-Bawerk, inspiration was provided by Mises and Hayek. Their contributions were, above all, in monetary theory and trade cycle theory. As for techniques, Austrians show a predilection for deductive, *a priori* reasoning, which shows up in their subjectivist value theory in particular. They firmly believe in *methodological individualism,* i.e. in the words of Haberler (1951, p. 42), the principle that social phenomena and forces must be defined and interpreted in terms of interrelations and interactions, often of great complexity, between individuals and their subjective motivations. Their research programme is focused on problems of incomplete information and the role of the entrepreneur, or purposeful human action in general. Walrasian general equilibrium is a situation that is never attained, though competition ensures that there is always a movement in that direction. Entrepreneurial activity and revision of plans by economic agents in general causes continuous change. They are convinced that human action is not very amenable to aggregation and statistical analysis, which implies a negative or at least cautious attitude towards macroeconomics and a preference for a verbal, non-mathematical approach (which would not, however, seem to preclude a positive role for econometrics in historical studies or in problems of a technical nature, such as inventory strategy, (cf. Dolan, 1976, pp. 14-15). They are wary of economic predictions (cf. Grassl, 1986; Lachmann, 1969; Nyíri, 1986; Reekie, 1984; Smith, 1986a, 1986b).

Hayek argues that there is no *direct* causal connection between the money supply, the price level and total production. Individual decision makers do not react to this kind of magnitude (Hayek, 1967, p. 4). He even goes so far as to prophesy that monetary theory will throw the very concept of a general price level overboard (Hayek, 1967, p. 29). As regards equilibrium theory, McCloughry (''Editor's Introduction'' in Hayek, 1984a) asserts that Hayek's frame of reference until his 1937 *Economica* article on ''Economics and Knowledge'' was the Walras-Pareto type of general equilibrium model. It may, however, be noted that in the passages quoted by McCloughry as proof of Hayek's general-equilibrium approach, Hayek in fact was arguing that the Lausanne-type general-equilibrium model is of little help in analysing trade cycle phenomena (cf. Hayek, 1933, pp. 42, 57). In his later work Hayek emphasised that price formation is part of a continuous information-collection and information-disseminating process. Competition is to Hayek's mind not a situation in which people really know all about the data of the economic system. It is rather ''a procedure for the discovery of such facts as, without resort to it, would not be known to anyone, or at least would not be utilised'' (Hayek, 1978a, Ch. 12, p. 179). Competition is a discovery procedure which makes the system change all the time. This leaves little room for static equilibrium theory, where, according to Hayek, the concept of competition can find no place, because in static equilibrium all facts have already been discovered and there is no discovery taking place any more (Hayek, 1978a, p. 184). These ideas may not have been spelled out before 1937, but a kernel was already present.

Austrians and International Economics

International economics has never occupied the centre stage in Austrian economics. Analysis has generally been confined to microeconomic (though not partial-equilibrium) problems, dealing with exchange in general, not specifically across borders. Insofar as they have busied themselves with international economics at all, Austrian economists have tended to concentrate on monetary problems. Problems of the monetary order, i.e. the monetary standard, get their special attention. There are, however, two economists of Austrian descent and sharing

Austrian values whose contributions to international economics, not only the monetary side but the real side as well, stand out: Gottfried Haberler and Fritz Machlup. Both studied at Vienna during the early 1920s and attended lectures given by Wieser. Both took part in Mises' private seminars. Haberler worked on a project for the *Institut für Konjunkturforschung,* set up by von Mises and Hayek with Hayek as the director, while Machlup was the treasurer and subsequently the secretary of the *Nationalökonomische Gesellschaft* (the Political Economy Association; cf. Craver, 1986). Machlup and Haberler can therefore show impeccable Austrian credentials. But to what extent can their economic analysis be called Austrian?

After mentioning Mises' few contributions to international monetary economics, we first review Hayek's views on international economics. We then try to find out if Haberler's and Machlup's contributions to international economics do show any special Austrian traits. After that, we turn to Schumpeter. Schumpeter may have been of an older generation than Hayek, Machlup and Haberler, but he stood farther apart from the core of Austrian thinking than they did. The first generation of Austrians is not studied here, nor are the present-day neo-Austrians.

Ludwig von Mises

Mises only paid scant attention to international monetary economics in his *Theorie des Geldes* (1924) and peculiarly little in other works (cf. Mises, 1928). Drawing on David Hume, Adam Smith and David Ricardo, he proves a rather conventional adherent of the quantity theory and Gustav Cassel's purchasing power parity theory (Mises, 1924, pp. 165, 233, 163). Admittedly it was not conventional to adhere to these views in Central Europe at that time.

The quantity theory may be further developed in the direction of the modern subjectivist approach, in Mises' view, but there was nothing that could take its place (Mises, 1924, p. 233). He applied quantity theory reasoning to the dominant monetary problem, inflation. The gold coin standard generally functioned well and prevented inflation. With the prevailing gold bullion and gold exchange standards, however, any automaticity that the system possessed has gone. According to Mises, the price of gold was, in 1924 (when the gold standard still was suspended in most countries apart from the United States), wholly dependent on the policies of the United States. It would be as well to switch to a wholly fiduciary system. An uncompromising return to the gold coin standard would increase the demand for gold to such a degree that a severe deflation would follow. This would be highly undesirable. On the other hand, it would prevent governments from pursuing inflationary policies. With the First World War in mind, Mises tended to see inflationary policies as part of a belligerent attitude of governments. The gold coin standard cannot prevent governments preparing for a war, but it could in his eyes not fail to increase the resistance of the public against inflationary financed preparations for war (Mises, 1924, pp. 401-5).

Hayek

Friedrich A. Hayek (born 1899) is in many people's eyes the archetypal Austrian. His main contributions to economics proper are in the fields of capital theory and business cycle theory, indeed in a rather unique combination of both. He does not seem to have been interested in international trade theory, but shares the common Austrian interest in the monetary order, including the international monetary order. Throughout his life he has written on the fundamental problems of the monetary standard. The international propagation of cyclical shocks has not been studied by him, even if trade cycle theory has been his main subject (cf. Hayek, 1933; 1967). Fluctuations in export demand, one of the main propagators of cyclical fluctuations from one country to another, are not essential in Hayek's microeconomic approach, but his preoccupation with the price structure would, it seems, not preclude a study of the relative movements of interest rates between countries and their implications for international capital movements. It is, on the face of it, not impossible that this kind of movement could bear on the changes in the real structure of production which, in Hayek's view, constitute the cyclical fluctuations (in contrast to monetary factors, which *cause* the cycle, cf. Hayek, 1933, p. 17).

Be that as it may, Hayek's contributions to international economics are confined to the problems of the monetary standard. His main preoccupation has always been the fear that governments abuse their power over the money supply in order to attain short-term goals. At first he was a staunch defender of the gold standard, this being to his mind the best mechanism to keep governments, or rather monetary authorities, in check. In the midst of the Great Depression he argued that the world's monetary problems did not result from adherence to the gold standard, but from not following the rules of play of the gold standard, deplorable conduct that was seemingly sanctioned by Keynes' *Treatise on Money* (Hayek, 1932). After the First World War the gold bullion standard replaced the gold standard. The gold bullion standard, together with co-operation between central banks, enabled the monetary authorities in the United States to overexpand credit without losing reserves, as credit expansion took place in Europe as well. The fall in prices which should have taken place was in this way forestalled, so that prices had to fall faster afterwards. Overexpansion of credit caused a misdirection of production and in that way was responsible for the ensuing depression. Hayek sees little scope for any stabilisation policy, once a depression has set in. It simply has to run its course. He can be seen as a latter-day adherent of the *therapeutic nihilism* that, according to William Johnston (1972, p. 223), loomed so large in nineteenth-century Viennese intellectual life and which concentrated on diagnosis to the neglect of therapy.

The gold standard was in Hayek's eyes the best defence against debasement of the currency, but only if the monetary authorities followed the rules of the game, i.e. would not resort to sterilising inflows and outflows of international reserves. Hayek had an additional motive for supporting the gold standard. Under the gold standard, world financial markets would be integrated, which in his view would minimise the intensity of disturbances after a shock. Imagine that the shock consists of a shift in preferences from goods produced by country A to goods produced by country B (Hayek, 1937, pp. 20 ff.; note that Hayek here refers to a random shock, not to a cyclical movement). Under the gold standard, money income in A falls, leading to reduced purchases from B and/or a fall in the prices of some A goods and a resulting increase in exports to B. Money income in B rises. Imports from A increase and/or the prices of some B-goods increase, resulting in lower exports to A. After a certain period of time, international trade will be in equilibrium again. During the adjustment period, under the pure gold standard the accumulated money flow from A to B will be equal to the fall in cash balances in A and the increase in cash balances in B. If there are two separate monetary systems in A and B, complications arise. Under a gold bullion standard with fractional-reserve banking systems, central banks will be forced to assist the adjustment process by manipulating discount rates. Presumably Hayek's reasoning is that the money supply had to adjust by a multiple of the change in reserves in a fractional-reserve system, which does not come about automatically. The central bank in A will increase the discount rate. The interest rate is driven up independently of any change in investment and saving propensities, i.e. the market rate of interest is driven above the "natural" rate. Now bank loans are primarily made for investment purposes, so investment carries a disproportionate burden during the adjustment process. The result, in typically Hayekian fashion, is a disruption of the production structure. Under a system of freely floating exchange rates, inflationary forces will be unleashed (Hayek, 1937, pp. 38 ff.). If demand conditions change, as in the case pictured above, relative prices should change. Relative prices of export industries in A would have to fall. With freely floating exchange rates, A's currency will depreciate and a fall in the relative price of A's worst-hit export industries is likely to be brought about by a rise in the price of the other industries. In country B, appreciation of the currency with the money supply held constant would imply that some prices rise while others, especially those of import-competing industries, would have to fall. Hayek finds it most improbable that central banks will let this happen. In other words, under a freely floating exchange-rate system, there is a kind of ratchet effect at work. Hayek apparently subscribes to the Mundell-Laffer argument as expounded by Corden (1977, p. 77). It may be noted that Haberler (1975) came, by a similar chain of reasoning, to the conclusion that it is a fixed-exchange rate system that has a built-in tendency to inflation (see below). A further drawback of freely floating exchange rates is the increased volatility of capital movements it brings about, for speculative reasons (Hayek, 1937, pp. 56, 63).

Hayek's argument runs in terms of relative prices. Magnitudes such as "price levels", "terms of trade" and "multiplier" come in for diatribes (Hayek, 1937, p. 45). One wonders if his aversion to average values and aggregates did not make him lose sight of simple macroeconomic identities. In his criticism of people such as Harrod who advocated floating exchange rates because in that system central banks are free to keep interest rates low, Hayek argued that low interest rates will induce capital exports (1937, p. 66). Those capital exports, according to Hayek, will be at the expense of bank liquidity and can only continue through credits from the central bank to the banks. Moreover, Hayek argued, there would be an adverse balance of trade, as part of the export receipts are used to make new loans abroad. This looks like either a slip of the pen on Hayek's part or an utter misunderstanding of the system of floating exchange rates, as the use of export receipts for capital exports implies a positive balance of trade, or rather a positive current account, as indeed is necessarily the case in a freely floating system where the central bank does not intervene in the foreign-exchange market (and commercial banks have no varying net-foreign-assets positions). Hayek's argument that the adverse balance of trade ''means that the supply of real capital and therefore the natural rate of interest in the country will rise'' is rather opaque too. Under freely floating exchange rates, capital exports induced by a low rate of interest will tend to push the rate of exchange up, i.e. will tend to depreciate the currency and call forth an improvement of the current account. Bank liquidity is not impaired by capital exports in this system. A central bank may be tempted to increase the money supply continually if capital exports are fully interest-elastic, though not in order to replenish the liquidity of the commercial banks, but in a vain effort to pull the rate of interest down.

Hayek was not what might be called a gold fetishist. He clearly saw one of the most serious problems of a gold standard, namely the slow adjustment of the supply of gold to changes in demand. This causes price fluctuations and, Hayek adds, ''leads to the increase in the production of the one thing which can be used for practically no other purpose than to provide a liquidity reserve for individuals'' (Hayek, 1943, p. 178). This is not so far removed from Keynes' quip that ''gold-mining is the only pretext for digging holes in the ground which has recommended itself to bankers as sound finance'' (Keynes, 1961, p. 130). He was therefore attracted to plans for introducing a commodity reserve currency. The price level would be less volatile than under a gold standard. Hayek also, surprisingly, given his lifelong fight against Keynesian ''misconceptions'', argues that ''the secured income of the producers of raw commodities would also go far to stabilise the demand for manufactures and to prevent the depression from becoming serious''. The scheme would serve to prevent overexpansion as well. Increased demand for goods would partly be satisfied by the monetary authorities selling raw commodities from their hoards. Money would in this way be siphoned off from circulation. This lapse in Hayek's uncompromising rejection of macroeconomic considerations does not seem to have lasted long. Ironically, Keynes himself had little time for this idea. It would impose outside limits on domestic wage-policies (Keynes, 1943). Presumably that was not its worst feature in Hayek's eyes.

Recently, despairing that governments can ever be trusted not to tinker with the money supply, Hayek has made what at first sight might look like a *volte face*. He now advocates freedom of money supply and a breakdown of the government monopoly (Hayek, 1978b, 1979, 1984b; see also Professor Yeager's contribution in this volume). But it appears that this is not a new idea. Drawing on a publication by Mises (1928), he already in 1937 maintained that there are only two rational monetary systems. One would be a system with an international central bank (would that bank be able to withstand pressure for credit creation, one might well ask), the other one would be a system of '' 'free banking', which not only gives all banks the right of note issue and at the same time makes it necessary for them to rely on their own reserves, but also leaves them free to choose their field of operation and their correspondents without regard to national boundaries'' (Hayek, 1937, p. 77). Clearly his present ideas have been a long time gestating. He now wants to give private enterprises the right to create their own currencies. Competition will ensure that the issuers of money take care not to over-issue money. It is in their own interest to keep the purchasing power of their currency roughly constant (even Hayek cannot do without averages and index numbers). A currency which people fear will depreciate is unattractive for depositors, a currency with the prospect of appreciation is unattractive to borrowers. These currencies must be left free as to their exchange rates. In a world of floating rates Gresham's Law does not hold, so that "bad" money will not drive out "good" money (Hayek, 1978b, p. 38; cf. also Starbatty, 1982). Governments and central banks need not pull out of the market, they would only lose their monopoly. Competition by private monies would see to it that governments can no longer accommodate excessive wage increases, which would also keep the employers in check, but competition between different official national currencies would be useful as well. EC members could remove any restrictions on the use of other member states' currencies in their own territories (Hayek, 1976). Presumably depositors would prefer currencies such as the Deutschmark and the Dutch guilder to currencies of inflation-prone countries and compel other governments to strive to maintain the purchasing power of their currencies.

Hayek's proposal may look somewhat quixotic. His aversion to governments tinkering with the money supply (one might object that postwar Swiss, German and Dutch governments and central banks hardly deserve Hayek's wrath) seems to have made him lose sight of the informational advantages of using one national currency. With a number of competing currencies circulating side by side, people will have to spend time and other resources on gathering information on the solidity of the various money suppliers. Moreover, if different currencies circulate within one geographical area, more information has to be digested, as people have to take account of sets of prices expressed in different currencies. On the other hand, it is conceivable that some currencies will be in use in more than one country, which does away with a number of transactions. Milton Friedman, in a critique of Hayek's proposal, argues that banks cannot give a purchasing power guarantee on their liabilities, as they cannot find assets with a fixed purchasing power in which to invest their funds. Furthermore, there is little historical evidence of people's willingness to use other currencies than that of their own country, while indexed bonds have never been much of a success either (Friedman, 1984). All the same, Hayek's ideas touch on a very topical issue, namely the question of to what extent different currencies can exist alongside each other in a monetary union, a question which is obviously pertinent to the European Monetary System. A conference on this subject was explicitly said to have been inspired by Hayek's ideas (Salin, 1984, p. 1). Indeed, a burgeoning literature has recently sprung up on currency competition and free banking, known as the "New Monetary Economics", which partly builds on Hayek's recent writings (cf. Cowen and Kroszner, 1987; McCallum, 1985).

Haberler

It is difficult to discern specific Austrian traits in Gottfried Haberler's (born 1900) contributions to international economics. There is one exception: Haberler introduced the idea of opportunity costs and with it the concave-to-the-origin production-possibility curve in international economics in his reformulation of the doctrine of comparative costs (cf. Haberler, 1970a, p. 133; Viner, 1964, p. 520;

Bhagwati and Chipman, 1980, p. 314-5; Baldwin, 1982; Humphrey, 1988). The concept of opportunity costs stems from Austrian value theory. That value theory, however, cannot be seen as exclusively Austrian, because it has been adopted by almost the whole profession, except the Cambridge, UK-based Anglo-Italians and some diehard Marxists. In a sense, we are nearly all Austrians.

Haberler's approach is that of static general equilibrium, with pure competition and perfect markets, where information problems are absent (cf. Haberler, 1961, p. 13). In his original contribution to international trade theory, he explicitly strove to incorporate international trade in Walrasian and Paretian general equilibrium theory (Haberler, 1970a, p. 132). For true-blue Austrians, pure competition with perfect markets is a situation never to be reached, because of the constant change brought about by entrepreneurial activity. It has, however, been noted already that Hayek himself did not completely break loose of the static general-equilibrium model before 1937. Haberler does not turn a blind eye to the limitations of static Neoclassical theory. He acknowledges that Walrasian equilibrium may be gradually approached, but that it will never be fully reached (Haberler, 1975, p. 14, n. 3). The problem is one of the modelling of ideas rather than the ideas themselves. He sees a need for the analysis of the impact of international trade on consumer tastes, factor supply and conditions of production (Haberler, 1961, pp. 57-8). He makes a distinction between the short-term production possibility curve, which is sharply kinked because of adjustment difficulties, and the long-term one, which has a much flatter shape (Haberler, 1970a, pp. 143-5; the convention rather is to draw the long-term curve only and to have movements from one equilibrium point on the curve to another one taking place not along the curve, but by way of a path below the curve, which indicates underutilisation of resources). He is, moreover, keenly aware of the dangers of aggregation, even if his analysis runs in terms of price levels and aggregate demand. He agrees with Viner that community indifference curves are suspect because with a movement along the production-possibility curve factor prices and the distribution of income change (Haberler, 1970a, p. 145; 1968, p. 215; consumer indifference curves have been introduced into international trade theory by Viner and by A.P. Lerner: cf. Viner, 1964, pp. 520-23; Humphrey, 1988).

Typically Austrian is Hayek's explanation of thè Great Depression of the early 1930s in terms of maladjustments in the ''vertical'' structure of production, i.e. the distribution of capital between capital goods industries and consumption goods industries. Unlike Friedman and other monetarists, Hayek emphasises the distortions in relative prices that occur during inflation. Haberler does not hold to much of this theory. In characteristically down-to-earth fashion he points to the fast transition to a peace economy after the First and Second World Wars that took place notwithstanding the large reshuffling of real resources that was needed. Besides, the Great Depression occurred after a decade that was not, apart from Central Europe, plagued by inflation. However, Hayek argued that with productivity increasing, prices should have fallen and stable prices were in reality inflationary. Haberler finds it hard to believe that stable prices in the 1920s could have caused large real maladjustments that would not have come about with falling prices (cf. Haberler, 1976, pp. 24-5). Hayek's view that crises have to run their course does not appeal to him either. He notes that whenever monetary deflation was stopped, the alleged real structural malajustments disappeared very fast (Haberler, 1976, pp. 32-3). In Haberler's view, monetary mismanagement, leading to a sharp fall in the money supply and a collapse of the banking system in the United States, was the main culprit, while a lack of international policy co-ordination only made matters worse. As a depression, set in motion by deflation, may become self-reinforcing, deficit spending may be necessary for a reasonably quick recovery (Haberler, 1976, p. 41). This emphasis on effective demand can be found in Haberler's famous League of Nations study, *Prosperity and Depression*, the first edition of which was published in 1937 and was written before Haberler could have taken account of Keynes' *General Theory* (see Haberler, 1963, p. vi). In his description of the international transmission of cyclical movements aggregate expenditure is the fundamental factor, with relative price levels coming in only when capacity utilisation becomes high (Haberler, 1976, Ch. 12, in particular p. 411).

Haberler does not appear to adhere to a specifically Austrian style of economic analysis, though some common elements can be found. He has, however, introduced the originally Austrian notion of opportunity costs into mainstream international economics. His outlook on society is not unlike Hayek's. Indeed, he is a member of the Mont Pèlerin Society which was founded by Hayek and which defends *laissez-faire* capitalism. He takes issue with Scitovsky, who argued that the price system needs some supplement for co-ordinating investment decisions, because prices do not reflect future situations. This, according to Haberler, rests upon a misunderstanding of the role of the entrepreneur, who, e.g. when introducing a new product, certainly is not guided by present prices alone because they do not yet exist for his product. Competitive equilibrium theory cannot guide the entrepreneur to profitable new ventures, nor can it guide managers in centrally planned economies (Haberler, 1970b, pp. 16-17). These Austrian insights do not form, however, part and parcel of his formal analysis. He can for all practical purposes be seen as a typical mainstream economist, whose views may be characterised as moderate monetarist. Like Friedman, he advocated a floating exchange rate system long before it was politically feasible (Haberler, 1954, pp. 37-8). He does not underestimate the benefits of a fixed-rate system, but given that inflation rates differ among countries and given downward wage and price rigidity, only flexible exchange rates enable a country to insulate itself from inflationary pressures from abroad or to undergo inflation without impairing its foreign trade (Haberler, 1980a, p. 46). Because of downward wage-inflexibility, a system of fixed exchange rates has an inflationary bias (Haberler, 1975, p. 19). Best let market supply and demand determine the rate of exchange. As for official intervention, Haberler doubts if the monetary authorities are less likely to make mistakes than private market participants (Haberler, 1980b, p. 34). Unlike Friedman, he thinks that trade unions can cause cost-push inflation, though not without monetary accommodation, while Friedman tends to view trade union power as a monopoly that may push up the price level but not the rate of price increases (Haberler, 1969). His moderate monetarism also finds expression in his support for Friedman's money-supply growth rule (Haberler, 1979; 1980b). But, as indicated above, he is not dogmatic about stabilisation policies by the government, which he deems necessary once a severe depression has developed. His rejection of the claims of hard-line rational expectations proponents fits in with his non-dogmatic, common-sense approach (cf. Haberler, 1980b). Haberler's moderate monetarism appears to be of a piece with The Netherlands Bank's version, as formulated by its former President, Dr Jelle Zijlstra: both Haberler and Zijlstra argue that for a successful fight against inflation monetary restraint must be supplemented by fiscal policy and some kind of incomes policy or wage restraint (Haberler, 1975, p. 14; Zijlstra, 1985, p. 253).

Haberler's mainstream ideas do not result from a lack of originality. Quite the contrary, in the field of international economics the mainstream is to a large extent his creation. He is one of those immigrants into the United States of whom Craver and Leijonhufvud note that: "The immigrants who were to become most productive and recognised for their contributions in later years were those who adapted well to the United States and did not remain outsiders very long, but became basically American economists relatively quickly" (Craver and Leijonhufvud, 1987, pp. 175-6). And an outsider he certainly was not: he served as President of the American Economic Association and of the National Bureau of Economic Research. Perhaps his outlook has always been uncommonly cosmopolitan. Craver and Leijonhufvud (1987,p. 175) argue that at European centres such as Vienna before the war economists were more influenced by local philosophers, historians or sociologists than by fellow economists abroad. This was by no means so in the case of Haberler, who visited the United States in 1927 as a Rockefeller fellow and published an article in the *Quarterly Journal of Economics* (Haberler, 1929) in which he, apart from Pareto, exclusively referred to British and American economists. His pathbreaking book on the theory of international trade was translated into English in 1936 and it may be no more than a slight exaggeration to say that most of the present textbooks on international economics are to a greater or lesser extent moulded by the example of Haberler's *Theory of International Trade*, with its division into monetary theory, pure theory and trade policy. Summing up, Haberler cannot be characterised as a typical Austrian economist, but he shared at least some of the Austrian ideals and very successfully integrated some Austrian elements into mainstream thinking.

Machlup

Like Haberler, Machlup was one of those successful immigrants who adapted well to the American environment. He taught, among others, at Harvard, Buffalo, Johns Hopkins, Princeton and New York University and served as president of the American Association of University Professors, the Southern Economic Association, the American Economic Association as well as the International Economic Association. Again like Haberler, he was internationally oriented. Visiting America in 1933-4, in 1934 he decided to stay there, because of the deteriorating political situation in Austria. But he had already published an article in *Economica* in 1932.

Machlup was a prolific writer who distinguished himself in many fields. Apart from money and international economics, he was one of the leading writers on price theory, the economics of education and the economics of innovation (see the Bibliography in Bitros, 1976). This last subject may be seen as a typically

Austrian preoccupation. His 1935 article on the period of production, a defence of Böhm-Bawerk's capital theory, was even more in the Austrian tradition (Machlup, 1935). But his Austrian upbringing did not prevent him becoming one of the leading mainstream economists. His 1925 monograph on the gold bullion standard does not appear to have an Austrian flavour. It tends to view the transition from a gold coin standard to a gold bullion standard as a way to reduce costs (Machlup, 1925, p. xiv). Quite unlike Hayek, he deems the elasticity of the supply of paper money under a gold bullion standard a good thing, as the money supply can in that way smoothly and with little delay adjust itself to the demand for money (Machlup, 1925, p. 3). The first book that won him lasting fame was a meticulous study of the working of the (dynamic) multiplier in an international context, in the Preface of which Keynes' strong influence is acknowledged (Machlup, 1943). This analysis of the foreign trade multiplier by Machlup, together with that by Lloyd Metzler, has become part of standard Keynesian international macroeconomics. Nevertheless, his attitude *vis-à-vis* macroeconomics has generally been cautious. Macroeconomics is useful to Machlup's mind, but the underlying microeconomic relationships must not be lost sight of. In his critique of Alexander's "absorption approach" to devaluation, he showed that below the surface of aggregate relationships between spending and income, changing relative prices and price elasticities are at work (Machlup, 1955b). Elsewhere, he argued that neither microeconomics nor macroeconomics is expendable, but that one should be carefuly not to be led astray by macroeconomics. Macroeconomics deals with aggregates and collectives, which may lead specialists in macroeconomics to overemphasise the role of government and not to attach enough weight to free individual choice (Machlup, 1967, p. 143). In line with this cautious attitude to macroeconomics, he agreed with Hayek's rejection of direct causal relationships between aggregate magnitudes (Machlup, 1977a, p. 26).

Free individual choice was as important for Machlup as it is for Hayek and Haberler. Like Hayek and Friedman, he was a founding member of the Mont Pèlerin Society, of which he was treasurer from 1954 to 1959, and he fully subscribed to its libertarian creed of freedom from coercive state intervention (see the "Notes from the Editor" in Machlup, 1977b; see also Machlup, 1969b). In the field of international economics, Machlup's liberal leanings found expression in his staunch opposition to trade controls (Machlup, 1976, p. 75). He also warned against fixing the rates of exchange, unless countries are willing to give up their autonomy in credit policy. Otherwise restrictions will be unavoidable (Machlup, 1976, p. 66).

Machlup spent much thought on economic methodology. His starting point was the conventional Austrian one of aprioristic deductivism. Economic analysis begins, in his view, with the construction of ideal types, such as *homo economicus*. Only with the help of this kind of construct can theoretical systems be developed that are of use in explaining empirical phenomena. Ideal types or abstract theoretical propositions cannot themselves be empirically proved or refuted, but they may be rejected if the conclusions of the theoretical system of which they are a part are refuted (see Machlup, 1955a; 1960; 1969a). The abstract constructs are often employed in studying the effects of certain changes in conditions. These effects are brought about by individual decision makers. What counts is their subjective estimates of cost and revenue conditions (Machlup, 1946). This emphasis on subjective appraisals makes him argue that there is no ''need'' for any particular volume of international reserves. International economists have given much thought to the problem of the optimal volume of international reserves (cf. *International Reserves,* 1970; Grubel, 1971; Jager, 1981). But it is vain to attempt to calculate the optimal volume, because there is no optimal volume. Machlup argued, starting from the subjective considerations of the central bankers, that one can only say that there is a need for an increasing volume of international reserves (Machlup, 1966b). Like Hayek, he distrusted quantitative forecasting and thought that generally large only qualitative conclusions can be drawn from economic analysis (Machlup, 1972). Also, his analysis is never over-mathematical. He preferred to give numerical examples rather than develop systems of equations or at least to give numerical examples in addition to his equations (cf. Machlup, 1956, 1943), even if there are exceptions (cf. Ch. 19 on *The Transfer Problem Revisited* in Machlup, 1966a).

Machlup was an economist of Austrian origin who merged into the mainstream while still exhibiting typical Austrian traits, more so than Haberler. It is telling in this respect that Machlup was the editor of a series of essays on Hayek (Machlup, 1977b) and co-editor of another one (Streissler *et al.*, 1969), while Haberler was only a contributor to the last. Even if not belonging to an Austrian school in a narrow sense, Machlup followed an Austrian style of sorts, which at times found clear expression in his work on international monetary economics and, with his emphasis on microeconomic relationships, also bears to a certain degree on his other work in the international field.

Schumpeter

We cover Schumpeter after Hayek, Machlup and Haberler, though he was of an earlier generation: he was born in 1883 and was taught by Böhm-Bawerk and Menger. This is done because Schumpeter stood further apart from the Austrian style of theorising. No methodology could in his eyes claim the right to be the sole correct one. Walras was as much his lodestar as was Wieser, though his search for the essential as opposed to the surface of monetary phenomena seems to owe more to Karl Menger than to Walras (cf. ''Editor's Introduction'', Schumpeter, 1970). His views on the development of society derived partly from Marx; he intended to integrate elements from both the Austrian marginalist approach and Austro-Marxism, otherwise worlds apart (März, 1983, pp. 53, 70, 100). Schneider (1951, p. 55) points to the influence of J.B. Clark and Irving Fisher on Schumpeter's thought. In Haberler's view, however, Schumpeter always adhered to one of the main tenets of the Austrian creed, methodological individualism (Haberler, 1951, p. 42). He did not share the doubts expressed by Mises and Haberler (Hayek is curiously omitted) as to the concept of a general price level, though he acknowledged the problems it throws up. On the other hand, his focus on entrepreneurial activity is as Austrian as could possibly be. Not much is found in Schumpeter of the typical Austrian's distrust of econometrics; indeed, Schumpeter, though no econometrician himself, was one of the founders of the Econometric Society and its president from 1936 to 1941.

In Schumpeter's works not much can be found on international economics. His massive *Business Cycles* contains only a few pages on that subject. Commodity trade is hardly mentioned at all. Emphasis is on capital movements and especially on the ways central banks may cope with them. What to do, for example, if there are massive capital exports and a monetary contraction is not desirable, given the situation of the domestic economy. Schumpeter did not share Hayek's fears that the central bank's discount policy may cause faulty price relationships (Schumpeter, 1961, pp. 685 ff). Paul Samuelson once wrote that "Schumpeter was a universalist in economics. Mention a field in the subject of political economy, and you will find his name already established there". Significantly, in the list that followed international economics is conspicuous by its absence (Samuelson, 1981, p. 1).

Conclusion

There are virtually no Austrian contributions on the real side of international economics, unless one wants to label those by Haberler and Machlup as Austrian. One might wonder what could have been specifically Austrian contributions. Examples that come to mind are, first, exploration of the activity of entrepreneurs, e.g. some variant of the product-cycle theory and, second, the analysis of uncertainty, again in the form of ever-changing market conditions as entrepreneurs discern and create new opportunities which prevent a Walrasian equilibrium from being found. Austrians have left the initiative in these fields to others (though not much has so far been done on the second subject, except for attempts to quantify the impact of exchange rate variability on trade flows, cf. *Exchange Rate Volatility and World Trade,* 1984; Cushman, 1986; Willett, 1986). Austrian interest has always been focused more on monetary problems. As Barry (1981) observes, Austrians have distinguished themselves by integrating technical aspects of monetary theory into a broad social and economic philosophy. In the international sphere this finds expression in Hayek's recent proposals for competition in the money supply. Those who are not willing to take Hayek's ideas, or might one say dreams, seriously, should still admit that he has given impetus to the study of the very serious problems of a monetary union and the monetary order in general. And those who are inclined with Pen (1962) to regard Austrians such as Mises and Hayek as a bunch of morose socialist-haters who invariably follow the wrong theoretical track, will certainly not extend that verdict to Machlup and Haberler.

In conclusion it can be said that through Haberler and Machlup international economics has received extremely valuable contributions with an Austrian flavour. The only worthwhile contribution from the hard core of Austrianism appears to be Hayek's discussion of the international monetary order.

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