

THE DEJA-VU OF EMU:

CONSIDERATIONS FOR EUROPE FROM NINETEENTH CENTURY AMERICA*

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This paper compares the structure and dynamics of the American monetary system from 1840 to 1860 with the European Monetary System of today. It argues that the two systems share certain dynamic similarities, problems, costs and benefits. To overcome the problems of its monetary system, the U.S. created a single national currency during its Civil War. This new single currency contributed to the political and economic integration of the U.S. in the postbellum period, but it played a divisive role in political economic relations among regions. This outcome is likely to be replayed if the European Community achieves economic and monetary union.

If achieved, economic and monetary union (EMU) in the European Community (EC) would certainly be historic but it would not be without precedent. The histories of both nineteenth century Germany and Italy provide examples of independent states with independent economic policies merging into larger economic units with common economic policies. European scholars have studied these nineteenth century examples of EMU to determine if they hold "lessons of history" for the EC of today.¹ Similarly, American scholars have studied the twentieth century history of the Federal Reserve System as an example of EMU that the European Community might learn from.² This paper follows in that tradition by looking for lessons for modern Europe in America's nineteenth century experience with monetary union.

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Obviously, significant differences do exist between the European Community of today and the United States of the nineteenth century. The EC is a collection of largely industrialized sovereign states with numerous lingual, cultural and political differences. The antebellum U.S. was a collection of largely agrarian, economically developing states with a common language, a common political tradition, and a federal governing structure with a weak central government.

However, there are also some interesting similarities between the two. Both the antebellum U.S. and the EC were customs unions. Both joined together in a single market states which were at different levels of economic development. However, despite this single market, important barriers to the free movement of goods, services, labor and capital existed in the antebellum U.S., just as such barriers continue to exist in post-1992 Europe.³ Like the EC member states of today, the antebellum U.S. states enjoyed wide latitude to engage in independent fiscal policies and the antebellum U.S. possessed even fewer federal fiscal transfer mechanisms than the EC does today. Furthermore, as this paper will argue, the antebellum U.S. did not possess a single national currency and its monetary system had features in common with the European Monetary System of today. Because of these similarities, the experience of the creation of a single currency in the U.S. has important implications for the Maastricht Treaty's project to create an economic and monetary union in the European Community.

The Antebellum American Monetary System

Prior to its Civil War, the United States did not possess a single national currency, although it did possess a single unit of account, the U.S. dollar. This U.S. dollar served as the "outside money" of the monetary system. Outside money is a term from monetary economics which designates money that originates by fiat outside of the banking and financial system. In the modern era, outside money consists of coins and fiat paper currency issued by central governments. However, in the antebellum U.S., the federal government issued no fiat paper money. The outside money of the country consisted solely of gold and silver that had been minted into coin under federal authority.

The entire paper money circulation of the country consisted of "inside money." Inside money originates inside the banking and financial system. Legally, inside money represents only a promise by a financial institution to pay outside money. However, forms of inside money like bank checks are far more convenient and safe to use in larger transactions than forms of outside money like coins. For this reason, inside money is usually the preferred means of payment in transactions and it constitutes the overwhelming bulk of the money supply in modern market economies. In the antebellum U.S., the most common form of inside money was the bank note.⁴ Bank notes were paper obligations of banks to pay a stated amount of gold to the bearer on demand and they were issued in denominations and sizes that made them convenient for circulation. Since the federal government issued no fiat

paper money in the antebellum period, bank notes constituted the only form of paper money in circulation.⁵

Banks issued this paper money according to the rules established by their charters of incorporation or by subsequent banking legislation. However, after 1836 the responsibility for chartering and regulating banks was solely the prerogative of the state governments and not the federal government.⁶ It was the states, and not the federal government, which possessed the authority to set and alter the conditions under which banks could issue notes. By loosening those conditions, a state could increase its bank note circulation. By restricting those conditions, a state could decrease its bank note circulation. Therefore, it was the states, and not the federal government, which controlled the paper money circulation within their borders through their bank chartering and regulatory policies.

State bank notes were widely accepted and used as a means of payment within the state in which they were issued. Borrowers received the proceeds of their loans in bank notes. Wages were paid in bank notes and merchants accepted bank notes in payment for goods and services. Indeed, even during periods when species payments were legally suspended in a state, so that banks did not have to redeem their notes in gold, that state's bank notes continued to circulate and act as money within its borders.

However, on a federal level, this state bank note currency only legally served as money to the extent that it could be converted into the gold coin outside money of the

system. If a state bank could no longer fulfill its legal obligation to redeem its notes in gold, its note holders found that their currency holdings were worth only a fraction of their declared gold value, or even worth nothing at all. This possibility created uncertainty and risk in accepting bank notes as a means of payment and in holding bank notes as a store of value.

Merchants, rival banks, and investors who were heavily exposed to this risk constantly tested the commitment of banks to redeem their notes in gold by frequently returning the notes they received to the issuing banks for redemption.⁷ By the mid-1860's, the principal cities of the U.S. had established organized "clearing houses" to facilitate this process. This process of testing the commitment of banks to maintain the value of their notes through frequent redemptions tended to keep those notes trading at or near their face value within the states where they were issued.

However, bank notes did not normally trade at their face value in commerce among states. Merchants, bankers, and investors did not usually have direct knowledge about the solvency of banks in other states and their sources of information about those banks were imperfect. Moreover, the underdevelopment of transportation facilities at the time made it difficult to redeem the notes of banks from distant states and to repatriate the gold. Because of these higher uncertainties and transactions costs in using bank notes across state lines, bank notes were only accepted at a discount in places distant from their point of issue. Thus,

the value of a paper dollar issued by a state bank in one state did not normally equal the value of a paper dollar issued by a state bank in another state.

As a result, bank notes enjoyed only a local circulation in the antebellum period, usually only within the state or even the locality where they were issued. They did not freely serve as a means of payment across state borders. Merchants wishing to purchase goods from other states had to rely upon bank intermediation to provide them with the "foreign" (i.e. belonging to another state) exchange that was required to execute the transaction. Travellers too found that dollars they possessed which were perfectly useful for making purchases in one state had to be exchanged at a discount for dollars to use in transactions in another state.

State economic policies had a direct impact on the rates of exchange among state currencies. Some states adopted strict banking regulatory policies that were intended to ensure that banks honored the legal obligation to redeem their notes in gold. For example, New York required its banks to hold in gold reserves a fixed proportion of their outstanding note issues. Louisiana used an early version of risk-based capital standards and the New England states relied upon a proven self-regulatory system. States which pursued such "sound money" policies, as they were known at the time, maintained the exchange value of their states' bank notes against gold. Moreover, by effectively limiting their state's bank note issues to their banks' gold outside money reserves, "sound money" states avoided inflation.⁸

However, other states pursued bank chartering and regulatory policies that were radically different. These states knowingly or unknowingly permitted their banks to evade the legal obligation to redeem their notes in gold. For example, some state governments chartered banks to issue currency which possessed no capital or gold with which to redeem that currency.⁹ Other states simply did not regulate their banks well or failed to enforce those regulations that did exist.¹⁰ Such policies permitted the states to enjoy a bank note circulation over and above what the existing stock of gold in the banks' vaults justified. However, in doing so these policies led to an inflation in bank note issues and a depreciation of the state's currency against both gold and the currencies of other states.

Therefore, although the United States possessed a common outside money unit of account throughout the antebellum period, each state controlled the value of its own inside money dollar through its bank chartering and regulatory policies. In theory, these state bank issued dollars had a fixed one-to-one exchange rate with the U.S. dollar.¹¹ However, in practice, each state retained the ability to devalue its currency from this one-to-one exchange rate. The antebellum American monetary system can thus be characterized as a system of inside money currencies linked in nominally fixed but in practice flexible exchange rates with a common outside money. It is on this basis that a comparison of the structure of the American Monetary System with the European Monetary System is possible.

The European Monetary System

The European Monetary System (EMS) is often described as a system of nominally fixed but in practice flexible exchange rates among the member states of the EC. However, the legal status of the currencies that constitute the EMS is far different than the legal status of the currencies of the antebellum American monetary system. Since each EMS currency is designated as a separate unit of account by national law and each originates by fiat outside of the banking and financial system, each EMS currency satisfies the formal definition of outside money. Thus, at first glance the EMS appears to have little in common with the system of inside money currencies linked to a common outside money that was described above. However, for each member state of the EMS which has made a credible commitment to the Exchange Rate Mechanism (ERM) of the EMS, the outside money character of its currency no longer applies in practice. To understand why, it is first necessary to briefly explain how the ERM functions.

The ERM fixes a rate of exchange between each ERM member currency and the European Currency Unit (ECU). The ECU is a composite unit of account that consists of fixed amounts of the EMS currencies. By fixing a rate of exchange between each ERM currency and the ECU, the ERM at the same time fixes a set of bilateral exchange rates between each ERM currency and the currencies of all other ERM members. The central bank of each ERM member state pledges to keep its currency within a band of $\pm 2.25\%$ of these fixed bilateral rates.¹² This means that a central bank will sell its own currency if the value of that

currency rises 2.25% above its fixed exchange rate with another ERM currency. Conversely, it will buy its own currency if the value of that currency falls 2.25% below the fixed exchange rate with another ERM currency.

In the international currency markets, a decline in the currency's market exchange rate towards its 2.25% lower limit means that the supply of the currency is greater than the demand for the currency in the market. This excess supply signifies that currency traders are selling the currency for other ERM currencies. The weakening currency's central bank is obligated to provide those other currencies in exchange for its own if the excess supply threatens the fixed exchange rate. This pledge by an ERM central bank has much in common with a nineteenth century American bank's pledge to maintain the exchange rate of its currency against gold.

In the words of the nineteenth century, the excess supply of the currency signifies that currency traders are seeking to "redeem" that currency into the currencies of other countries of the ERM. The central bank of the weakening currency is pledged to redeem its currency into the currencies of the other members of the ERM at its fixed rate of exchange. This redemption takes place in the international currency markets which act as the "clearing house" of the ERM.

On the other hand, a rise in the value of an ERM currency towards its upper 2.25% means that the demand for that currency in the international markets has risen relative to its supply. This excess demand signifies that currency traders would like to hold more of that currency in their

portfolios. By selling its own currency in the markets, a central bank accommodates this demand and accumulates more foreign exchange reserves. In other words, the central bank issues more of its own currency on the basis of its higher foreign exchange reserves. Such an expansion in the circulation of an ERM central bank's currency in the international markets is equivalent to a nineteenth century bank's expansion of its note issues in response to a higher demand for those notes and an inflow of outside money gold into the bank.

Therefore, just as a nineteenth century bank could not expand its note issues above what the public was willing to hold and its gold reserves were able to support, an ERM central bank can not expand its own currency issues above what the public is willing to hold and what its reserves of foreign exchange will support in the international markets. By tying its currency to the currencies of the other ERM members, a central bank makes its currency a de facto claim upon those other ERM currencies at the fixed rate of exchange. In practice, each ERM central bank is obliged to treat its own currency as inside money and each central bank must stand ready to redeem this inside money into the "gold" outside money of the ERM. That outside money is the other currencies of the ERM. In day to day practice, the most important of these other currencies for eight members of the ERM is of course the Deutsche Mark.

As de facto inside monies, the ERM currencies serve perfectly well as a means of payments within the member states

that issue them. However, they serve less well as a means of payment in transactions across state borders because it is the outside money value of those currencies which is important for foreign recipients. That outside money value is only as good as the central bank's commitment to defend the value of its currency in the international markets. As the events of September 1992 demonstrated, central banks are not always willing or able to maintain that commitment. Thus, there is a risk for foreign merchants, investors, and bankers in accepting the currencies of other ERM member states in payment across member state borders. Moreover, there is an incentive for those investors who are heavily exposed to this risk to constantly test the commitment of ERM central banks to redeem their currencies into the other currencies of the ERM. This test occurs when currency traders sell ERM currencies in the international markets.

Thus, the EMS does share some similarities in structure with the antebellum American monetary system. If a member state has made a credible commitment to the ERM, it must treat its own currency as a form of inside money which is tied to the outside money of the system. However, just as an antebellum state retained the ability to break the link of its currency with gold, an ERM member still retains the ability to break the link of its currency with the other ERM members. Therefore, like the antebellum American monetary system, the EMS in practice can be characterized as a system of inside money currencies linked in nominally fixed but in practice flexible exchange rates with a common outside money.

Dynamic Similarities of the Monetary Systems

The European Monetary System was built by design. The antebellum American monetary system (AAMS) was built by default. But in the eyes of their contemporary monetary authorities, both systems were expected to provide exchange rate stability among their member currencies by tying those currencies to a common outside money.

In achieving this goal, both systems achieved some degree of success. It appears safe to assert that the exchange rates among currencies in the AAMS were more stable than they would have been in the absence of a legal link to a common outside money. Similarly, most economists accept that the exchange rates among currencies of the ERM are more stable vis-a-vis each other than would be without the ERM. However, neither the AAMS nor the ERM achieved absolute exchange rate stability among their member currencies.

This lack of success in achieving absolute exchange rate stability was due to the periodic "redemption crises" that both systems were subject to over time. Redemption crises occur when a currency issuing bank must dramatically restrict the circulation of its own currency in order to ensure the redemption of that currency for the outside money of the system. In some circumstances, this domestic monetary contraction may cause so much political discontent that a democratically elected state might encourage its currency issuing bank to break the link of its currency with the outside money of the system. In both the AAMS and the ERM, these circumstances arose during periods of short-run

speculative attack and during periods when the longer-run effects of trade and investment flows made supporting the outside money value of the currency politically impossible.

Speculative Attacks

As de facto forms of inside money, ERM currencies and antebellum American state currencies only served as a dependable means of payment in trade across state borders to the extent that they could be converted into outside money.¹³ So, holders of these inside money currencies constantly tested the commitment of the issuing banks to redeem their currencies into outside money.

As discussed above, the day to day tests of the convertibility of currencies in the antebellum U.S. served a useful function since they kept bank notes trading near their face values in the states where they were issued. However, sometimes these daily tests of convertibility lapsed into a severe speculative attack against a bank's note circulation. News, rumors, or a general suspicion that a bank was no longer able to redeem its currency into gold could cause the bank's note holders to "panic." Long queues would form outside the doors of the bank as note holders rushed to redeem their notes into the outside money of gold. If the bank found that its reserves of gold were insufficient so that it could no longer redeem its notes in gold, redemptions of the bank's notes ceased and the bank was usually closed by the authorities. When the remaining note holders of the bank were finally able to exchange their notes for gold, they normally found that they could do so only at a rate of exchange well below the

face value of the notes. In modern terms, we would call this result a currency devaluation.

Moreover, sometimes a speculative attack would spread to most or all of the banks in a state. These panics produced monetary contractions with significant adverse economic consequences, and were often followed by economic depressions. In these circumstances, the political authorities would intervene and permit banks to cease redeeming their notes for gold and thereby devalue their currency in terms of gold.¹⁴ By doing so, the state authorities hoped to bring their state's economies out of the depression.

In the ERM, currency traders also test the commitment of central banks to maintain the value of their currencies on a daily basis. These daily tests of a central bank's commitment to its currency keep central banks from pursuing policies which would endanger their exchange rate commitment. However, as the events of September 1992 and January 1993 demonstrated, news, rumors, or suspicion that an ERM central bank is no longer able to redeem its currency into other currencies at its fixed rate of exchange can cause a "panic" against an ERM central bank's currency.

Although international currency traders do not queue outside a central bank's doors, the effects of their sales of the bank's currency in the international markets is the same. The central bank experiencing such a run is obligated to buy up the excess supply of its currency in the market. If the central bank has sufficient reserves of foreign exchange, it can weather this storm. However, if the central bank's

reserves of foreign exchange become depleted, it faces a redemption crisis. The bank might escape this crisis by attracting inflows of new foreign exchange through higher interest rates. However, if this option is not politically feasible, the bank must cease redeeming its notes into foreign currency at the fixed rate of exchange. Although the central bank does not go into liquidation, the effect of the subsequent devaluation of its currency in the international markets is the same for foreign holders of that currency. That is, when those currency holders seek to convert that currency into foreign exchange after a devaluation, they will realize only a fraction of the previous outside money value of that currency.

In both the ERM and the AAMS, these speculative attacks sometimes took place even when the issuing banks still possessed the fundamental ability to redeem their notes into outside money. No bank is liquid enough to convert all of its liabilities into outside money at the same time. In nineteenth century America, panics sometimes forced solvent banks to suspend the redemption of their notes because they did not possess enough short-term liquidity to withstand the run. In the ERM, it is sometimes argued that a central bank, presiding over a currency whose economic fundamentals justify its current rate of exchange, can be forced into devaluation because its liquid reserves of foreign exchange are not sufficient to support a speculative attack by international currency traders.¹⁵

On the other hand, sometimes the speculative attack on the currency is warranted. In antebellum America, mismanaged, insolvent banks did issue notes that could not be redeemed into gold. Likewise, an ERM central bank can pursue a monetary policy that endangers its ability to remain in the ERM. In both cases, devaluation of the currency becomes inevitable. However, in both systems, speculative attacks are not the only cause of devaluations. Trade and investment flows also play an important role in determining a bank's ability to maintain the fixed link between its inside money and the outside money of the system.

Trade and Investment Flows

Since the ERM currencies and antebellum American state currencies were only widely accepted as a means of payment within the states that issue them, outside money plays an important role as a means of payment in trade and investment flows across state borders. However, as discussed above, the amount of a state's inside money in circulation is tied to its reserves of outside money. To the extent that trade and investment flows cause movements of outside money across states, these flows will cause changes in the circulation of inside money within states.

In antebellum America, interstate importers and exporters relied upon bank intermediation to obtain the inside money of other states.¹⁶ Importers borrowed the currencies of other states from banks to purchase the products of those states. Exporters sold the currencies of other states to their banks in exchange for their own currency. If a state's imports

roughly equalled its exports there was no net effect on the state's own currency. However, if a state developed a chronic trade deficit that exhausted its banks' holdings of the currencies of other states, then its banks had to send the outside money of the system, gold, to make up the difference.

This gold could be obtained from the investments made in the deficit state by capitalists or banks in the trade surplus states. The gold could also come from sources such as new gold discoveries or the foreign coinage that immigrants from Europe brought with them. If these sources of new outside money were adequate to pay for the trade deficit of the state, then the state's outside money reserves were unaffected. However, if these sources were not adequate, then the state's outside money reserves would decline as gold was sent to pay for the trade deficit.

For a state pursuing a "sound money" policy, this decline in the gold stock would automatically result in a reduction in its own banks' note currency issues. In practice, this meant curtailing bank loans to local producers and a rise in local interest rates. In the more relatively developed and industrially competitive states of the country, such periods of credit tightening were temporary and politically supportable.¹⁷ However, other states were less developed with relatively less competitive industries. They were dominated by highly leveraged small agricultural producers or marginal industries that relied heavily upon bank credit. When these states experienced chronic trade deficits and

credit conditions tightened, these credit-dependent producers were adversely affected and political discontent resulted.

It is not surprising that some states responded to such chronic redemption crises by pursuing a radically different type of monetary policy. That is, these states used their authority over banks and the currency to loosen the conditions under which banks could issue notes and to break the link between their own inside money and the outside money of the country. This policy permitted the states to escape the tight monetary conditions imposed by the need to redeem their currencies into the outside money of gold. However, by doing so the state devalued its currency vis-a-vis gold and it experienced a bank note inflation.

In a not so dissimilar fashion, the exchange rates of ERM currencies are affected by the flows of trade and investment among its member states. Importers from an ERM country supply its currency on the international markets in exchange for other currencies. Exporters supply those other currencies, earned from the sale of their products and services. If the value of an ERM country's exports roughly equals its imports from year to year, the effect of trade on an ERM currency is indifferent. However, if an ERM country develops a chronic trade deficit which creates an excess supply of its currency on world markets, that country must send the outside money of the system, foreign exchange, to the international currency markets to make up the difference.

Unlike nineteenth century banks, ERM central banks have an easier task attracting this outside money. The integration

of international financial markets permits central banks to attract outside money by raising interest rates and inducing inward capital flows. However, if a member state experiences chronic trade deficits caused by an underlying competitive disadvantage, the willingness of foreign investors to continue to supply outside money to the state will decline. In order to maintain the convertibility of its currency within the ERM, the central bank will be forced to draw down upon its own reserves of outside money and raise interest rates further. The resulting credit tightening will dampen consumer demand, reduce real investment and perhaps put marginal enterprises out of business.

For an ERM state experiencing only a temporary trade problem and whose industries are basically competitive, these effects can be politically supportable. However, in a state whose underlying economy is less competitive and which is already experiencing recession or economic difficulties, the tightening of monetary conditions can result in widespread political discontent. In this situation, it is not surprising that a politically controlled central bank would be tempted to respond to this political pressure and pursue a different monetary policy. That is, it could give up its efforts to redeem its currency into outside money at the previously fixed rate of exchange and permit its currency to devalue.

Thus, the dynamic effects of trade and investment in both the AAMS and the EMS created periodic redemption crises. These crises offered incentives for a member state with a chronic competitive disadvantage to devalue its currency and

break the link between that currency and outside money. Whether or not the issuing banks in both systems do break the link with outside money is a matter of specific historical circumstances that cannot be predicted a priori. However, the fact that the choice existed for member state governments to permit their issuing banks to break the link with outside money, and the fact that state governments may be tempted to exercise this prerogative, can be asserted a priori as matters of principle in both systems. It is the existence of this choice which undermines the absolute exchange rate stability of both systems. Moreover, the existence of this choice brings similar benefits and costs for policy makers in both the AAMS and EMS.

Benefits and Costs of the Monetary Systems

The primary benefit of both the AAMS and the EMS is that they offered some degree of exchange rate stability in monetary relations among states during "ordinary" times and an ability to adjust one's exchange rate in "extraordinary" times. In ordinary times, exchange rate stability among states with close economic links reduces the uncertainty of producers, consumers, and investors about the future relative prices of products and assets traded across borders. This reduction in uncertainty permits economic agents to make production, consumption and investment decisions that better reflect the "true" price of products and rate of return on assets. Furthermore, by achieving exchange rate stability through tying currencies to a common outside money, like gold

or the Deutsche Mark, both the AAMS and EMS brought the inflation rates of their member states closer together. For these reasons, both the AAMS and EMS permitted the law of one price to function better across borders in ordinary times. By doing so, both monetary systems helped policy makers achieve the economic benefits of an integrated interstate market that economic theory promises.¹⁸

On the other hand, in the extraordinary circumstances of a redemption crisis, the economic benefits of the law of one price could pale in comparison with the political necessities of the moment for policy makers. In states dominated by heavily credit-dependent and/or relatively uncompetitive producers, breaking the link with outside money permitted these producers to continue to operate and it gave them some degree of protection from imports as the currency devalued. At least in the short-run, the people employed by these producers could keep their jobs and consumers in general found easier borrowing conditions than would have otherwise prevailed. For people from these groups, and the political leaders who draw support from them, it is clearly better for a state to devalue its currency than to endure the political and economic costs of maintaining the link with outside money. Thus, preserving the choice of state policy makers to break the link with outside money does have its benefits.¹⁹

However, the preservation of this choice also has its costs. Breaking the link with outside money harms those producers, consumers and investors who depend heavily upon a stable link with the currencies of other states. For example,

importers and consumers of imported products must give up more of their own resources to make the same purchases as before. Savers find that the value of their accumulated wealth as measured in outside money has declined. Moreover, although consumers of domestic products are initially unaffected, currency devaluation usually led to inflation for all consumers. In the end, state policy makers who followed this course often found their popular support dissipate.

However, it is not just the exercise of the choice to break the link with outside money that imposed costs. The very existence of the choice also carried an important cost. That is, it hindered the further economic integration of the states that belonged to each monetary system. This occurred for two reasons.

First, preserving the existence of this choice means preserving the existence of separate state currencies. Each time a cross-border transaction is made, the currency of one state must be exchanged for the currency of another state. Consumers and investors must pay for this exchange in the form of commissions and other transactions costs. These transactions represent a disincentive to engage in cross-border activities and they distort the prices and return of goods and assets traded across borders.

Secondly, as long as the choice to break the link with outside money exists, uncertainty about the future of the state government's intentions with respect to the currency will exist. This uncertainty means that an individual could make an economic contract or investment at one price today

only to find that the actual price of the contract or return on the investment is different tomorrow. Thus, this uncertainty creates a disincentive to engage in long-term economic contracts or investments across borders.

Of course, for those firms and individuals with the resources to overcome these uncertainties and transactions costs, the existence of different national currencies poses no problem. Indeed, European multinational corporations engage in long-term economic contracts and investments across Community borders on a daily basis, just as many merchants and investors did in the antebellum U.S. However, on the retail level of the individual consumer wishing to make small purchases in another state, or a small to medium size enterprise looking for a supplier or market in another state, the existence of transactions costs and exchange rate uncertainty does constitute an important psychological barrier to cross-border transactions. At this level, the existence of separate state currencies inhibit the transparency of prices across state lines.

Moreover, even on the wholesale level of the multinational corporation, the possibility that a state might devalue its currency introduces a distortion in the relative price of products and return on investments across state borders. If doubt about the future value of a currency exists, large-scale economic actors will demand a premium for this risk in investments and may be more reluctant to enter into long-term contracts. Therefore, the existence of the choice to break the link with outside money prevented the law

of one price from being fully realized in either the AAMS and EMS and it hindered the economic integration of both systems.

Of course, there is nothing original in these arguments and one reads them frequently in European Community literature on the need for a single currency.²⁰ What is interesting is that many of these same ideas appeared in the literature about the currency of antebellum America. For example, in a discussion concerning a bill to create a single currency in the U.S., Bankers' Magazine summed up these ideas by saying:

the States thus far have not created or authorized a paper currency possessing stability, uniformity of value and absolute certainty of redemption; but those desirable ends can be perfectly and permanently secured by a national currency. The system recommended by the Treasury will if adopted, thoroughly remove all liability to loss on the part of the note-holders; it will by healthy constraints, obviate the former risks of expansion, sudden contraction and inevitable revulsion; and by a national currency, at once uniform and reliable, remove the existing causes of loss by exchange between portions of the country remote from each other."²¹

In this passage, and in the writings of many other nineteenth century Americans, the potential of a single national currency to economically integrate the country was recognized.

Yet nineteenth century Americans did not just concern themselves with the economic benefits of a single currency. In the circumstances of the Civil War years, it was also recognized that a single national currency would play an important psychological role in uniting the country. As the Governor of Illinois stated in the midst of the Civil War:

"It will strike any person at all conversant in monetary affairs, that a currency of uniform value throughout the entire country is greatly to be desired. It tends to the more perfect regulation of our system of trade and commerce, obviates ruinous differences in the rates of exchange, and makes it the interest of the whole people to uphold and protect the representative of value,

whatever it may be. Every man who holds a five-dollar treasury note has so much interest in upholding a common country. I have no doubt, had a uniform currency existed throughout the Union previously to the breaking out of rebellion, our relations would have been so interwoven as to have rendered it difficult for the traitor to have consummated, to the extent now unfortunately existing, the secession of the revolted States."²²

Therefore, in the eyes of many nineteenth century Americans, the benefits of a common national currency were found not only in enhancing the economic efficiency gains of a single market, but also in the single currency's impact in creating a single national economic and political identity.

The Postbellum American Monetary Union

Throughout the antebellum period, the states jealously guarded their prerogatives to create and control economic institutions and advocates of state authority carried the day in most of the antebellum political disputes over economic questions. However, the secession of the Southern states at the start of the Civil War removed the most forceful advocates of state rights from Congress and the circumstances of the war years permitted the most ardent federalists in Congress to bring the currency under federal control. That goal was achieved through two pieces of legislation: The Legal Tender Act of 1862 and the National Currency Act of 1863.²³

The Legal Tender Act was a war emergency measure which permitted the federal government to issue fiat paper currency to obtain the material requisite for prosecuting the war. This Act was intended to be only a temporary measure and the "greenbacks" that it created, as the legal tenders came to be known, were paid out through federal procurement and payroll

expenditures. From 1863 to 1879, greenbacks circulated as fiat money in the U.S. However, with only one exception, the outstanding volume of this currency was reduced after 1864.²⁴ In 1879, the greenbacks were made redeemable into gold and were retired from circulation.

The National Currency Act created what was intended to be the permanent form of national currency. This currency consisted of the note issues of a new set of nationally chartered and supervised banks that came to be known as the National Banking System.²⁵ The bank note circulation of these banks entirely replaced the bank note circulation of state banks. These notes enjoyed a federally guaranteed one-to-one exchange rate against both the greenbacks and gold.²⁶ To ensure that these notes would possess a uniform value nationwide, all national banks were required to accept the notes of all other national banks at par. This currency continued to circulate in the U.S. until the banking reforms of the Depression Era.²⁷

The most immediate effect of the American monetary union was to improve the value of the inside money that was employed by normal citizens as a means of payment. After the monetary union was achieved, a dollar issued by a national bank in any state could be used for payment without transactions costs in any other state.²⁸ The savings to the economy from this elimination of transactions costs was substantial. Although it is probably impossible to obtain an accurate measure of the total size of this savings, Comptroller of the Currency John Jay Knox undertook "great pains" to do so in 1878. He

estimated that the U.S. saved \$20 million to \$60 million annually.²⁹ In 1879, the \$20 million figure represented .37% of national value-added while the \$60 million figure would constitute 1.13% of national value-added.³⁰

Furthermore, the literature of the postbellum period at least gives anecdotal evidence that the creation of a single currency eliminated much uncertainty in trade and that it had an important effect in creating the identity of a single national economy. As one contemporary public figure said:

"We have accomplished a revolution in our banking system . . . Such a revolution would have been impossible in a season of less patriotic order or national danger. We have annihilated a system of State banks under which the diversities in value and security of the circulating medium of different sections proved the greatest embarrassment to trade, and robbed it of much of its certainty and legitimate profit. We have created instead a single national currency, amply secured, watched over and controlled by the Government, limited in amount, equal in value everywhere, and possessing the confidence of the people."³¹

However, the American monetary union did not solve all of the political and economic problems that arose under the antebellum monetary system because the flows of investment and trade still had an important impact on the currency.

After monetary union was achieved, trade deficits that were not compensated for by investment inflows automatically translated into losses of outside money for a state. However, unlike the antebellum period, state authorities were now powerless to break the link between their state currency and the outside money of the system. Outflows of outside money automatically led to contractions of bank lending operations and higher interest rates regardless of the wishes of state authorities.

Moreover, regional disparities in the levels of economic development and competitiveness among states did not disappear with the creation of a monetary union. Because of these disparities, chronic trade imbalances continued to exist. Indeed, as agricultural prices lagged relative to industrial prices in the postbellum period, the trade imbalances among states became politically visible in states with important agricultural regions. Large interest rate differentials arose between the Eastern and the Western sections of the United States and the currency surged to the forefront of the political debates of the postbellum period.

The great populist movements of the postbellum period arose in opposition to the monetary union. The Greenback movement and the Free Silver movement both blamed the new single national currency for unnecessary currency contraction. They called for currency expansion and inflation to aid the situation of the less competitive regions. Some populists called for an end to the monetary union and a return to state bank note issue altogether. These political movements found their greatest support among those producers who were most adversely affected by tight monetary conditions. That is, those who were most heavily credit-dependent and those who were the relatively uncompetitive producers.

The arguments of the populists were not entirely without merit. The monetary policy of the postbellum period was deflationary and this did aggravate the problems of the less competitive regions.³² The banking system of the postbellum U.S. was not yet well integrated, and this contributed to the

higher interest rates of the less competitive regions.³³ Moreover, the federal fiscal budget remained relatively small until the First World War. Personal income transfers through the tax mechanism simply did not exist during that time period and there were few direct federal cash transfers to the states except through federal procurement.³⁴ Thus, interstate solidarity mechanisms were largely non-existent in postbellum America and there were few mechanisms to compensate the less competitive regions for their perceived losses in the monetary union. The only economic adjustment mechanisms left in nineteenth century America were lowered incomes in the uncompetitive regions and increased labor mobility.

Implications for Europe's EMU

While there are many historically specific circumstances surrounding the creation of a monetary union in the U.S. and its effects, there are also important considerations for Europe in America's nineteenth century experience with EMU.

On the positive side, the American experience leaves no doubt that monetary union in the EC will improve the value of the means of payment employed by citizens. The currency used by citizens of one member state could be used in other states throughout the monetary union without transactions costs. As in the U.S., the elimination of these transactions costs should result in a significant savings for European consumers. Indeed, it is interesting to note that the estimate of savings on transactions costs in the U.S. of .37% to 1.13% of value-added quoted above is strikingly consistent with the European Commission's estimate that transactions costs savings in the

Community will increase Community GDP by about .5% on average and by up to 1% for smaller member states.³⁵ Furthermore, EMU would also eliminate all currency risk in transactions across the member states of the monetary union. Thus, in conjunction with the Single Market, the adoption of a single currency would permit the law of one price to be realized and achieve greater economic integration in the monetary union. Moreover, a new single European currency would psychologically help build the concept of the European Union at the level of the individual citizen, as a single currency helped build the concept of a single country in the U.S. after the Civil War.

However, as in the postbellum U.S., European monetary union will not eliminate all of the political and economic problems of the ERM because differences in the competitiveness of regions in the monetary union will remain. Less competitive regions will still face chronic trade deficits. If these deficits are not compensated for by inward capital flows, the new outside money of the monetary union will flow out of those regions and domestic credit conditions will tighten. However, unlike the situation in the present ERM, member states will no longer possess the power to devalue their currency to alleviate this credit tightening.

Given that the memory of independent currencies will still be fresh for some time to come, political opposition to the currency is likely to arise among regions dominated by less competitive and heavily credit-dependent producers. The new European Central Bank and its currency would be an easy political target for this opposition, just as national banks

and national bank notes were for the populists in postbellum America. The European Central Bank would also be an easy scapegoat for state governments wishing to absolve themselves of responsibility for the problem. Thus, the postbellum American monetary union suggests that the creation of a single European currency will generate substantial political opposition to the monetary union in the Community's chronically less competitive regions.

However, to claim that such an event will occur in the EC, or even that it is likely to occur, requires one to step back from the abstractions of this paper and to examine the concrete historical circumstances under which EMU will be implemented in the EC. After all, will not the convergence requirements of the Maastricht Treaty ensure that the EC states which join the monetary union will start at the same level of economic competitiveness, unlike the experience of the U.S.? Will not the Second Banking Directive ensure that the less developed regions of the Community will have better access to capital than existed in the postbellum U.S.? Won't the envisioned increases in the EC structural funds, the creation of the Cohesion fund, and other Community solidarity mechanisms compensate less developed regions for their difficulties, unlike the experience of the nineteenth century U.S.? Unfortunately, the answer to each of these questions appears to be no. Although each of these factors might help soften the problems that will be created by a monetary union, none will be able to overcome the fundamental source of those

problems. That is, the divergence in the competitiveness of regions in the Community.

The Maastricht treaty does call for the convergence of certain nominal indicators of the competitiveness of national economies like inflation, interest rates and public deficits. But the problems posed by the American monetary union were created by differences in real competitiveness among regions. The Maastricht Treaty addresses only nominal convergence among states. Belgium as a whole might meet the convergence criteria of Maastricht but even if it does so the industries of Wallonia might well remain uncompetitive. In the postbellum U.S., nearly every state possessed both competitive and uncompetitive industries and regions. It was from the uncompetitive regions and industries of the postbellum U.S. that political opposition to the monetary system arose. Similarly, it is from the uncompetitive regions and industries of the EC states that join the monetary union that opposition to EMU is likely to arise.

The Second Banking Directive offers more hope to Europe's less competitive regions than the convergence criteria do. By facilitating the establishment of banks across state lines and by breaking down the local monopolies enjoyed by some banks in some regions, the Second Banking Directive would reverse one of the major mistakes of American monetary union which stopped banks from branching across state lines and established more local monopolies. Unlike the postbellum U.S., a post-EMU Europe could theoretically overcome any "credit shortages" that develop from uncompetitiveness by giving residents of

less competitive regions access to European-wide credit markets. However, there are two problems with this scenario.

First, significant barriers will remain in the culture of banking markets in Europe even after the Second Banking Directive is fully implemented. These differences in banking culture may keep banking markets in Europe segmented for some years to come, especially at the consumer retail level. Thus, it is possible that new competition will not emerge in local banking markets in the way that the Second Banking Directive envisions, at least in the short to medium-term. If continued market segmentation is the result and local banking monopolies persist, Europe may well find itself in a situation strikingly similar to the postbellum U.S.

However, even if the Second Banking Directive does make banking more competitive at the retail level, easier credit conditions for less developed regions might still not be the result. Banks lend on the basis of credit worthiness and risk as well as interest rate return and regions which are truly uncompetitive tend to be poorer credit risks. Banks may demand higher interest rates to extend credit in those regions which are poorer credit risks. So, interest rate differentials among regions in the Community might not disappear. If the less competitive regions do experience higher interest rates than elsewhere in the monetary union, this state of affair will not be politically popular.

It is to ameliorate the underlying problem of uncompetitiveness that greater solidarity mechanisms in the EC may help. With a strengthened EC level budget, less

competitive regions could receive funding to improve their stock of human capital, infrastructure, and all of the other elements that determine a region's competitiveness. However, given the current budgetary state of even the wealthier EC member states and the ongoing conflicts over the EC's budget, creating adequately funded solidarity programs is likely to be a problem in the EC for sometime to come.

Therefore, as in the postbellum U.S., it is possible that the only real adjustment mechanisms left in an EC monetary union will be falling incomes in uncompetitive regions and increased labor mobility. However, in a European monetary union with memories of the existence of national currencies and deep cultural divisions among its citizens, these adjustment mechanisms would only heighten the political opposition to EMU.

Conclusions

This paper has argued that America's nineteenth century experience in creating a monetary union provides a glimpse of the types of difficulties that lay ahead for the European Community if it pushes ahead to EMU as envisioned in the Maastricht Treaty. These difficulties result from the fact that a single non-inflationary currency enforces market-determined outcomes in trade. As a result, the Community's less competitive regions and industries will suffer short-term losses in income and employment in the early years of EMU.

However, a common currency does not create the problems of uncompetitive regions, it only enforces their results. The problems of less competitive regions go far beyond the

currency and solving these problems requires far more than currency realignments. Without a political consensus to solve such problems, political opposition to the monetary union is likely to arise in the Community's less competitive regions, just as such opposition arose in the postbellum America monetary union. Moreover, given the lack of a common cultural identity in Europe, this opposition may threaten public support for the project of the European Union itself. Therefore, the American experience teaches that the debate over EMU will only just begin when and if an EMU is put into place in the European Community.

However, this does not imply that creating an EMU would be a mistake for the Community. If the goal of the EC really is the economic integration of its member states, then the law of one price must prevail in the Community. The creation of a single currency is indispensable to achieving that goal.

Moreover, the effect of the single national currency in the United States went beyond the economic integration of the country. The common currency also helped to create a common economic and political identity among America's citizens. The common American currency remains an important symbol of the common economic and political identity of the American people. A common currency can become a symbol of economic unity for Europe as well, but only if the underlying problems of the competitiveness of regions are addressed. If the European Community does create an EMU, this will be its fundamental challenge in the twenty-first century.

NOTES

1. See for example Carl-Ludwig Holtfrerich, "The Monetary Unification Process in Nineteenth-Century Germany: Relevance and Lessons For Europe Today;" and Valerie Sannucci, "The Establishment of a Central Bank: Italy in the Nineteenth Century," both in A European Central Bank?: Perspectives on Monetary Unification After Ten Years Of The EMS edited by Macello DeCecco and Alberto Giovannini, (Cambridge UK: Cambridge University Press, 1989), p. 216-241 and p.244-280.

2. Barry Eichengreen, "One Money For Europe? Lessons From The U.S. Currency Union," Economic Policy 10 (April 1990): 117-187; Jeffrey A. Miron, "The Founding of the Fed and the Destabilization of the post-1914 U.S. Economy," in DeCecco and Giovannini, p. 290-328.

3. Although barriers to the free movement of goods, services, capital and labor in the EC are well known, those of nineteenth century America are less well known. The barriers to the free movement of goods included differences in technical standards across states. For example, there were eleven different railroad gauges in use in the northern states alone in 1861. Similarly, the free movement of labor was restricted by chattel slavery in the Southern states which not only prevented slaves from moving across state lines but also introduced distortions in the wage labor market in the Southern states.

4. Bank checks also existed as inside money during this time period. However, throughout the nineteenth century the use of bank checks was quite limited and it was largely confined to the major cities of the country.

5. On rare occasions, the federal Treasury did issue Treasury certificates as a part of their borrowing operations and these certificates sometimes did circulate as currency. However, these federal treasury notes were never made legal tender prior to the Civil War and they constituted only a very small portion of the paper money in circulation.

6. Prior to 1836, the federal government did charter two consecutive national banks, the First and Second Banks of the United States. These banks were empowered to issue notes. However, their notes never enjoyed a monopoly in circulation and they competed for circulation with the notes issued by state chartered banks. After the expiration of the charter of the Second Bank of the United States in 1836, bank notes issued under federal authority disappeared entirely from circulation.

7. Some bankers specialized in the business of "note brokering" by buying the notes of banks from distant parts of the country at a discount and transporting them back to the issuing banks for redemption.

8.Of course, inflation resulting from increases in the national outside money gold stock was still possible.

9.Chartering banks under conditions such as these resulted in what was called "wildcat" banking at the time. It occurred in states such as Wisconsin, Illinois, Minnesota, and the Nebraska Territory in the 1850's.

10.Indeed, the history of antebellum states using banking powers to create purchasing power approaches levels that appear fantastic today. Early in the antebellum period, states provided public improvement companies like canals, public utilities, and railroads with purchasing power by empowering them to act as banks and issue notes for circulation. Sometimes, currency expansion was used to expand public services, such as when libraries and even orphanages were given note issue privileges. Although the practice of chartering banks to issue notes to finance specific activities largely disappeared by the 1850's, the practice of creating purchasing power through loosening regulatory requirements or failing to administer existing requirements did not. Examples of this include Michigan in the late 1830's, Florida in the 1840's and Indiana in the 1850's.

11.Minus a discount that reflected the cost and risk of transporting gold from one state to another.

12.The central banks of Spain and Portugal are pledged to keep their currency within $\pm 6\%$ of their bilateral rates.

13.The key word in this sentence is dependable. Obviously, Belgian Francs can be used as the means of payment in trade between Germany and Belgium. However, what German recipients of Belgian Francs care about is their Deutsche Mark value. If there was a significant risk about that value, Germans would be unwilling to accept Belgian Francs as a means of payment.

14.This scenario occurred in nearly every U.S. state during the Panics of 1837 and 1857.

15.This was the argument of several Irish officials following the devaluation of the Punt in January 1993.

16.This reliance on bank intermediation was also due to the shortage of capital in the less developed American states.

17.For example, New York experienced this problem each year during the autumn harvest. Although New York was a trade surplus state for most of the year, it experienced a trade deficit each autumn as the agricultural products of the Western states were sent there. In exchange for those products, funds were sent to the Western states and credit conditions in New York correspondingly tightened. However, the situation was reversed again each winter.

18. The idea that exchange rate stability brings these benefits is widely recognized in the modern literature on the EMS. However, it is interesting to note that these benefits were also recognized by people in nineteenth century America. For example, Daniel Webster once said, "The general interest of the trading community is injured by sudden fluctuations in exchange, and benefitted by keeping it as steady as the commerce of the country will allow, -- in other words, by making the price of bills correspond with the real state of the exchange, instead of being raised or lowered for ends of speculation." Daniel Webster, The Writings and Speeches of Daniel Webster in 18 volumes. Vol. 6 Speeches in Congress, (Boston: Little, Brown & Co., 1903) p. 136.

19. The fact that nineteenth century American states loosened monetary conditions as a response to political pressures was often condemned in moralistic tones. For example, "We have today, in every loyal State with the exception of California and Oregon, a currency issued and encouraged by sanction of law, more than forty different banking laws, depending on the judgment, caprice or iniquity of the Legislatures of thirty-four different States, and which are changed or repealed as often as pliant and plastic legislators can be moved or molded by the influence of monied institutions or corporations." From: John Jay Knox, "A Uniform National Currency," Merchants' Magazine vol. 48, no. 1, January 1863, p. 31-32.

20. See for example, Commission of the European Communities, "One Market, One Money," European Economy, 44 (October 1990).

21. "Finances of the United States," Bankers' Magazine (January 1863), p. 552.

22. "Extract from the message of Governor Yates to the Legislature of Illinois, January 1863," Secretary of the Treasury, 38 Cong., 1 Session, House Exec. Doc. 20. p. 162-163.

23. The National Currency Act was substantially rewritten and amended in 1864.

24. One re-issue of greenbacks did occur in 1874 in response to popular demands for currency expansion after the Panic of 1873.

25. For this reason, the National Currency Act was later renamed the National Banking Act, by which name the measure is usually known today.

26. Prior to the retirement of the greenbacks in 1879, national bank notes could be redeemed in the greenbacks as well as gold.

27. From 1914 to 1933, national bank notes circulated alongside Federal Reserve Notes. The national bank notes were formally withdrawn from circulation in 1933. It must be noted that

full monetary union was actually not achieved until 1866. As originally passed, neither the Legal Tender Act nor the National Currency Act deprived the states of the authority to charter banks to issue notes. So, the new forms of national currency originally circulated as a parallel currency to the state bank note issues. However, on 3 March 1865 Congress passed a law that placed a 10% tax on the issue of state bank notes which took effect on 1 August 1866. This legislation quickly made bank note issue unprofitable for state banks and so state bank note issues disappeared from circulation after 1867. From that point on, the U.S. possessed a single national currency. It may be interesting to note that the U.S. experience with a parallel currency was not particularly encouraging with respect to the goal of price stability. Since the redemption of state bank notes in gold was legally suspended during the Civil War, state banks could simply pay out legal tenders or national bank notes instead of gold when their own notes were presented for redemption. State banks thus used these new reserves of legal currency to expand their own note issues. Therefore, as a parallel currency, the new national currency expanded the monetary base of the country and this added to the inflation of the Civil War years.

28. Every national bank was legally required to accept the notes of every other national bank at their face value.

29. In his own words, Knox derived this figure in the following manner: "The amount drawn upon New York alone is estimated at nearly three thousand millions of dollars annually; and it will not probably be an exaggeration to say that not less than four thousand millions of dollars are annually drawn in exchange by the West and South upon the East. The amounts drawn upon each other by the banks in the commercial cities and States of the East is also great. In 1859 the average cost of Southern and Western exchange upon New York, was not less than from 1 to 1 1/2 per cent. If this latter rate should be restored, the cost of exchange alone would be sixty millions annually; while if the rate were but one-half of one per cent., which was the current rate in the State of New York in the year of 1860, a loss in exchange of twenty millions annually would ensue, to say nothing of the loss upon the issues of banks not properly organized." From: John Jay Knox, Annual Report of the Comptroller of the Currency, 1878, p. 25.

30. Total national value-added in 1879 was \$5.40 billion as reported in: U.S. Bureau of the Census, Historical Statistics of the United States, Colonial Times to 1970, (Washington, D.C., 1975), p. 239.

31. George Walker, untitled, in Hunt's Merchants Magazine, 21, (March 1866), p. 687-688.

32. There was no central bank in the postbellum monetary system and so the only form of monetary policy consisted of fixed rules governing national bank note issue. These rules were deflationary. One provision of the National Banking Act

placed an overall cap of \$300 million on the total value of outstanding national bank notes, which unnecessarily restricted the national money supply. This cap was raised in 1870 to \$354 million and was finally repealed altogether in 1875. However, even after 1875 national banks could only issue notes after depositing federal bonds with the Comptroller of the Currency equal to 100% of the value of the notes issued. As the federal government repaid its war debt, the price of federal bonds rose making it more and more unprofitable for national banks to purchase the requisite security for their notes. For both of these reasons, national bank note issues remained relatively low throughout the postbellum period, and hence restricted the money supply.

33. Richard Sylla has argued that postbellum national banks throughout the country were linked to the money market centers of the East but their customers in the lesser developed states were trapped in relatively monopolistic local banking markets. National banks in the less developed states could price discriminate between the two markets. As a result, national banks in the less developed states invested more funds in the developed states than they otherwise would have in the search for lower risk and higher liquidity. These investments occurred despite the fact that interest rates were higher in the less developed regions of the country. See Richard Sylla, "Federal Policy, Banking Market Structure, and Capital Mobilization in the United States, 1863-1913," Journal of Economic History, 29 (4), (December, 1969), p. 657-686.

34. There were some cash transfers through the land-grant college system and some non-cash transfers through the Homestead Act and federal land grants for railroads. However, these were no equivalents to the European Community's social and regional funds.

35. Commission of the European Communities, "One Market, One Money," European Economy, 44 (October 1990), p. 21.