

## **Business Cycles in an International Context**

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## Introduction

An issue of interest to the mainstream during the 1990s was the phenomenon of international business cycles. Despite the quantity of work done in this field, Basu and Taylor concede:

the channel by which money has its effects on the economy very much remains an open question. We have noted some evidence that favors models with nominal rigidities, but we need more evidence on this point. Even within the class of Keynesian models, it is not clear whether the sticky-price or the sticky-wage model is more plausible (1999, 64).

In short, it appears that, at least Basu and Taylor see the mainstream as grasping for a model to explain the data. Even of their own analysis they state “even if one accepts our views regarding the class of plausible models, there is still a large gap between the models and the data” (1999, 64). In the view of Basu and Taylor, it seems that the many models of the mainstream have not yet explained the phenomenon as it appears in the real world.

Unlike the mainstream, Austrians, despite their great contributions to business cycle theory, have said little specifically regarding this phenomenon. This paper will seek to restate the general Austrian business cycle theory with emphasis on those aspects that are particularly relevant to explaining international transmission of business cycles. From there, I will turn to questions regarding the theoretical possibility of creating an insulation from business cycles originating in other countries. Finally, we will turn to practical policy questions.

## Transmission of Austrian Business Cycles<sup>1</sup>

Before we consider the phenomenon of the international business cycle, it is important to distinguish what, precisely, transmits business cycles in the typical Austrian business cycle theory. With that understanding, we can then apply this knowledge to transmission of business cycles between different geographic areas and different banking systems. But, before we can understand business cycle transmission, we must understand the basics of the business cycle itself.

“Any business cycle theory is essentially a theory of error” (Hulsmann 1998, 1). Therefore, in order to understand business cycle transmission throughout an economy, we must understand how the specific clusters of errors that occur in the business cycle are transmitted throughout the economy. In addition, we must understand why these errors tended to be discovered in a cluster as well. A cluster of errors is enough to lead to several bad decisions being made at once. However, a cluster of revelation is necessary for an economy-wide revelation of error and crisis to occur.

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<sup>1</sup> The discussion in this section is drawn from Mises’s *The Theory of Money and Credit* (1998, 391-403). Alternative discussions can be found in *The Austrian Theory of the Trade Cycle* (1996), Garrison (2001, sp. 67-76), Hayek (1966), Hayek (1975), Huerta de Soto (1998, sp. 277-305), Hulsmann (1998), Mises (1998, sp. 535-583), and Rothbard (1993, 850-879). These discussions vary to some degree from that presented here, but generally in a way insignificant to the scope of this paper.

Since Mises's The Theory of Money and Credit, Austrians have tended to look to credit market manipulation as the source of this widespread error. Mises states: "[T]he new fiduciary media coming on to the loan market have ... a *direct* effect on the rate of interest. They are an additional supply of present goods and consequently they tend to cause the rate of interest to fall." [emphasis in original] (1980, 391). This fall in the loan rate doesn't just affect those that issue the new fiduciary media, however. Instead, "[i]f they do this, the force of competition obliges other lenders to follow their example" (Mises 1980, 390). By this process, the interest rate distortion moves throughout the banking system and the economy. After this artificial drop in the rate of interest occurs, "then entrepreneurs are enabled and obliged to enter upon longer processes of production" (Mises 1980, 399). This process entails an investment in more new roundabout methods of production. Mises sums up the situation at this point:

The situation is as follows: despite the fact that there has been no increase of intermediate products and there is no possibility of lengthening the average period of production, a rate of interest is established in the loan market which corresponds to a longer period of production; and so, although it is in the last resort inadmissible and impracticable, a lengthening of the period of production promises for the time to be profitable. But there cannot be the slightest doubt as to where this will lead. A time must necessarily come when the means of subsistence available for consumption are all used up although the capital goods employed in production have not yet been transformed into consumption goods (1980, 401).

Judging solely from this passage, one would expect total disaster to strike. But, Mises assuages these fears:

[T]his situation does not imperil human existence by suddenly manifesting itself as a complete lack of consumption goods; it is merely expressed in a reduction of the quantity of goods available for consumption and a consequent restriction of consumption. The market prices of consumption goods will rise and those of production goods fall.

Thus, the crisis is explained. The consumption goods needed to maintain laborers at their previous (and expected) standard of living are simply unavailable as their production has been abandoned in favor of more roundabout methods. The relative price movement between consumption goods and production goods then explains why the interest rate rises. Of course, the banks can try to offset this pressure for rising interest rates by issuing more fiduciary media. However, eventually a limit will be hit.<sup>2</sup> At this point, the market interest rate rises to its natural rate, and the bust follows.

It is not practicable to transfer all the production goods from those uses that have proved unprofitable to other avenues of employment; a part of them cannot be withdrawn and must therefore either be left entirely unused or at least be used less economically. In either case there is a loss of value (Mises 1980, 403).

In the above formulation of the Austrian theory of the business cycle, as well as in most formulations thereof, the key component is the interest rate distortion. Because the interest rate is, in fact, an economy wide phenomenon that impacts all production

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<sup>2</sup> Rothbard (1993, 867-877) has a discussion of some of these limits.

processes. In the words of Rothbard, “Too many writers consider the rate of interest as only the price of loans on the loan market. In reality,...the rate of interest pervades all time markets...” (Rothbard 1993, 317). In addition, because every production process takes time, every production process is a part of the broad time market.<sup>3</sup> Thus, it is through the time market that the error is spread throughout the entire economy. Similarly, through the necessity of a halt to the credit expansion and the consequent rise of the interest rate to its natural level, the revelation of the malinvestments occurs essentially simultaneously throughout the entire economy.

So, what is necessary for two market participants to experience the primary impacts of the business cycle simultaneously? They must be a part of the same time market. In short, they must have access to at least some of the same loan markets or investment possibilities in production processes. As long as this is the case, they will experience the same interest rates and therefore the same business cycle.

Now some would observe that interest rates tend to differ internationally, even over the long term. Here, a distinction regarding various components of the gross market interest rate is necessary. First is the originary rate of interest, or pure rate of interest. Mises defines originary interest this way, “[o]riginary interest is the ratio of the value assigned to want-satisfaction in the immediate future and the value assigned to want-satisfaction in remoter periods of the future” (Mises 1998, 523). In short, the originary interest rate is the rate determined by the relationship between supply of and demand for present goods in terms of future goods. Second is the entrepreneurial component. This is the part of the interest rate that exists because “[t]here can never be perfect safety either in moneylending or in other classes of credit transactions and deferred payments” (Mises 1998, 536). Thus, two projects, though they experience the same originary interest rate (determined by time preference), may experience different entrepreneurial components in their interest rates. Thus, an entrepreneur that is starting a very risky venture would expect to pay a higher gross interest rate than an entrepreneur looking for a loan to expand a business that has proven profitable. The same can be said of nations. If loans in one country are particularly risky investments (because of high crime rates, poorly respected property rights, and the like), one would expect interest rates in that country to be higher than in countries where property rights are respected. The final component of the gross market rate of interest is the price premium. “The expectation of rising prices...has the tendency to make the gross rate of interest rise, while the expectation of dropping prices makes it drop” (Mises 1998, 540). Thus another component enters that can lead to different gross market rates of interest, despite the originary rate being the same. If one credit transaction is denominated in a relatively more inflationary currency, the interest rate on it will be higher than one denominated in a relatively less inflationary currency. In the end, a unified time market will move toward the same rate of originary interest, though not necessarily the same gross market rate of interest.<sup>4</sup>

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<sup>3</sup> Hulsmann (2002) presents an alternative theory of interest. Though his view would significantly alter some of the terms of my analysis, they would not significantly alter the relevant conclusions.

<sup>4</sup> Pugel (2004, 435-440) presents evidence that implies that, once the purchasing power and entrepreneurial premiums are taken into account, there is little difference in interest rates in the Western countries. This is especially the case where covered interest parity is considered.

Through this, it is clear that different countries, as long as they have the same time market, will experience the same originary interest rate. Thus, any action that distorts the originary interest rate in one country will lead to distortions in the originary interest rate in countries with the same time market. Since interest rate distortions are the primary mover of the business cycle in the Austrian theory, it therefore follows that the business cycle will occur at the same time in these countries.

Here an important point must be stressed: the higher stages of production will be the ones primarily affected by the cycle, even if they are located in a monetarily responsible country. As the market interest rate decreases, entrepreneurs are induced to undertaking longer, more roundabout methods of production. When the interest rate increases, entrepreneurs abandon longer methods in favor of shorter methods. Because credit expansions must come to a halt, the low interest rates they create must eventually rise. Thus, higher order, longer, more roundabout production methods will be begun that eventually must be abandoned. This process occurs regardless of location because the interest rate is uniform within a market regardless of location. Thus, if one country is particularly suited to higher order production, one would expect that it would experience the most extreme boom and bust. However, this occurs not for any specific reason of policy,<sup>5</sup> but simply because of the nature of the resources in the region. Thus, a higher order economy (say one that contains a lot of natural resource mining) may be plagued by a business cycle that is the result of another central bank's policy, as long as the time markets are unified.

This fact leads to a logical question. Is it possible to prevent this transmission of interest rate distortion through policy? The answer is yes, and this can occur through two ways, one relatively implausible, the other more plausible. One is that, as one central bank starts a credit expansion, another starts an equal and opposite credit contraction. This process would tend to entirely offset the interest rate distortion worldwide, thereby preventing the malinvestments that must be worked out in a bust.<sup>6</sup> The implausibility of this occurring is obvious, as it would require a precision that is generally not seen in monetary policy. Rather, it is likely that such a policy would either undershoot or overshoot the amount of credit that must be contracted to offset the artificial increase. If the policy undershoots, then the business cycle will occur, though to a lesser degree. If the policy overshoots, then a net artificial credit contraction would occur. Interest rates would increase in such a way that they would eventually have to decrease. This process, however, is not as destructive as credit expansion. In the words of Mises, "contraction produces neither malinvestment nor overconsumption... No protracted scars are left" (1998, 565). While the expansion leads to malinvestment and waste, the contraction does not. Thus an overshooting in the offsetting contractionary policy would, in fact, prevent the loss that occurs because of the malinvestments of the boom.

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<sup>5</sup> Some governments have a pro-industrialization policy where the government encourages industrialization. In this case, the boom and bust's location will be impacted by policy to some degree.

<sup>6</sup> Redistributive effects would not be offset, however. But, there is no need for these to follow a cyclical pattern.

The other policy, which is far more plausible, would be to impose capital controls in such a way as to intentionally divide the time markets. Thus, individuals in one country would be banned by law from investing in another, either in capital or in credit. Such controls may be used to intentionally keep interest rates artificially low (by prohibiting capital outflows) or high (by prohibiting inflows). If this policy succeeds, then differences in ordinary interest rates are possible. Thus, an interest rate distortion in one country need not be transmitted to another.

However, it is also possible for the secondary impacts of a business cycle (the redistributions and changes in the quantity of wealth that occur) to make the business cycle felt by individuals that are not part of the same time market, as long as there is a market connection.<sup>7</sup> In the words of Hayek, who applied this process specifically to an international context:

The important point in all this is that what incomes and what prices will have to be altered in consequence of the initial change will depend on whether and to what extent the value of a particular factor or service, directly or indirectly, depends on the particular change in demand which has occurred, and not on whether it is inside or outside the same "currency area". We can see this more clearly if we picture the series of successive changes of money incomes, which will follow on the initial shift of demand, as single chains, neglecting for the moment the successive ramifications which will occur at every link. Such a chain may either very soon lead to the other country or first run through a great many links at home. But whether any particular individual in the country will be affected will depend whether he is a link in that particular chain that is whether he has more or less immediately been serving the individuals whose income has first been affected, and not simply on whether he is in the same country or not (1989, 21-22).

Thus, as one nation enters a boom phase, those nations that export to it will also begin a boom, as the demand for their goods has increased. When the inevitable fall in income occurs during the bust, the trading partners will also feel this impact as a fall in real income. Unlike in the first case, however, this process will not necessarily impact the highest order goods to the greatest degree. Since, by assumption, policy effectively prevents capital from crossing international borders, only consumption goods are allowed to cross. Thus, the increased (and later decreased) demand is transmitted in a consumer good, not a higher order good. This fact would imply that, in such a case, the lower orders of production abroad will tend to be more affected than the higher orders.<sup>8</sup>

Thus, the business cycle will be transmitted from an inflationary country to any trade partner, either through the time market (assuming an offsetting contractionary policy does not occur) or through distributional effects (though the latter are clearly a weaker impact). It therefore follows that the only method of preventing a business cycle in one's own country when it happens elsewhere is total autarky. Neither producers goods nor consumer goods, nor ownership in either can be allowed to cross borders. Only by such a policy can business cycle transmission be prevented, though through strict capital controls, they can be lessened.

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<sup>7</sup> Such an impact, however, would be expected to be far less powerful by itself than the interest rate distortion.

<sup>8</sup> Thus, small countries that are hostile to foreign direct investment, but encourage tourism and like industries will see those industries be affected by international business cycles.

## **Practical Application**

The above discussion opens a very practical question: what should be done about the international transmission of business cycles? In this section, I will examine the merits and deficiencies of various national and international policies. Specifically, capital controls, autarky, a world currency, and unilateral monetary reform will all be examined.

I have noted that strict capital controls are capable of lessening (though not eliminating) the transmission of business cycles. Yet, is such a policy desirable? The answer is a clear no. Transfer of capital from one region to another greatly increases the degree of efficiency as a regional division of labor occurs (the standard comparative advantage story applies). This process offers great potential for gain. Though business cycles will be transmitted through free trade, the simple fact is that economic growth is as well. Though some capital will be malinvested as a result, it has obviously been shown historically that general economic freedom plagued by business cycles has still allowed for growth. This would seem to imply that a good deal of investment is efficient and actually aids in improving the standard of living.

In the above analysis, it was concluded that autarky and only autarky could prevent a business cycle from transmitting. Now, the question remains open, is this a desirable course of action? The analysis for capital controls applies here as well, though to an even more extreme degree. In reality, each of us is capable of insulating ourselves from business cycles. Such a course of action would simply require isolating ourselves from exchanges of any sort with other people. The impact of this “individual autarky” or “self-sufficiency” should be immediately obvious. Even if we allow a family to pool the resources that they produce, they will be incapable of developing the standard of living that we experience today. Provision of a simple item like clothing itself would be difficult. Only cotton farmers would be able to wear clothes made of cotton. In order to wear leather shoes, a family would have to raise their own cattle, tan the hides themselves, and form them into shoes. This last step would require needles, thread, tacks (or glue), some suitable material for soles, all of which would have to be produced by the family. Each of these requires further resources to be available to the family and further time in which they can transform the resources into the intermediary goods required. Even production of the very means of subsistence would be far more difficult under a system of autarky, and indeed, much of the world’s population would starve under such an arrangement. The case is less extreme, of course, under a system of national autarky. It is not inconceivable that a nation would be able to feed its people under a system of no external trade (though such would not necessarily be the case for every nation). However, it is clear that by limiting the diversity of available resources and division of labor to the national boundaries, a nation is condemning itself to suboptimal growth and, at the least, lessened prosperity. Transmission of the business cycle is a small price to pay for the ability to survive, and in fact, thrive as is the case under our system of even somewhat restricted trade.

One issue that may come to mind is that there may be a benefit to introducing a single world currency, as this would prevent one nation from plaguing another with business cycles. Here, great care must be taken to consider what kind of world currency is being considered. In the case of a world paper fiat currency, it is no better, and probably far worse than a system of multiple national currencies (fiat or commodity backed). In a system of competing fiat currencies, inflation and credit expansion would be limited by the relative stability of alternative currencies. There would be a continuous danger that the populous would relegate the inflationary currency only to its necessary uses, and would substitute other monies (or other liquid assets) as essential equivalents to cash holdings. This tends to limit the ability of national banks to inflate, for fear of hyperinflation occurring. In addition, this system allows for a relatively easy transition back to monetary stability after a hyperinflation destroys the previous currency. Because other monies exist, they could serve as a grounding for a new currency to be established (or they themselves could be adopted as the national currency).<sup>9</sup> A system of a unitary world fiat currency, however, would likely be plagued by rampant inflation that would eventually end in hyperinflation and economic disaster. Alternative liquid assets are more limited than in the previous case, and no alternative money exists that could be adopted once the hyperinflation ends. Reestablishing a monetary system would end up as a difficult task, at the very least, as the world would be pushed back to barter.<sup>10</sup>

A world currency that is redeemable in a commodity (probably gold) would have fewer such problems. However, there is a tendency for fractional-reserve banks, in times of crisis, to suspend specie payments. Such suspension rests the world currency on three grounds: the future possibility of redemption being reinstated, legal tender legislation, and the belief that the bank will not hyperinflate. Only one of these is not present under a pure fiat currency. Thus, a fractional-reserve world banking system would likely become a fiat system given time, and that system would be plagued by the problems discussed above. However, a 100% reserve commodity money would not have these problems. In fact, it would have no business cycle at all,<sup>11</sup> as monetary inflation through credit expansion would be impossible, as only real savings would enter the credit market. Thus, the market rate of interest would never deviate from the natural rate.

Finally, there is the question of unilateral monetary reform. If it is impossible to get all nations to agree to an international gold standard (as the previous paragraph advocates), what is Belgium, Hong Kong, the United States, to do on its own? Three general courses of action seem possible: inflation, monetary stability, or deflation. As Austrian business cycle theory demonstrates, inflation is self-defeating and, in fact, leads to the very business cycles we are trying to prevent in this section. Let us turn then to the opposite option: monetary deflation. If other nations are inflating, monetary deflation can offset, to some degree the expansion. However, such action tends to be politically

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<sup>9</sup> This was the case with Ecuador and the US dollar in 2000.

<sup>10</sup> Rothbard (1990, 877) gives a similar discussion, comparing this case with the German hyperinflation of 1923.

<sup>11</sup> Stock and Watson (2003) consider international shocks to be the primary cause of international business cycles. While unexpected changes in market data (“shocks”) certainly have economic impact, the resulting fluctuations are not business cycles. Such shocks, though, would continue under a 100% international commodity standard.

impossible. Mises notes: “[C]ontraction immediately produces conditions which everybody is ready to condemn as evil... It creates violent opposition. Very soon the political forces fighting it become irresistible” (1998, 565). So, despite its worldwide beneficial effects (lessening or eliminating the expansive business cycle), such a course would be politically impossible. Thus we are left with a single option: monetary stability. As Austrians have pointed out, this goal of policy is best achieved by freeing the monetary and banking system from political pressures. Rather, a decentralized system of 100% commodity reserve banking would be established by the market.

Such a system, though it would still experience business cycles as a result of being the victim of its less responsible trading partners, would have definite benefits for the world economy. First, and most immediately, it would not contribute to the worldwide process of credit expansion, thereby to some degree lessening the amount of malinvestment that occurs (and therefore decreasing amount of capital that will be wasted). This is clear simply from the fact that interest rates will not fall as far as they would have otherwise. Second, the existence of such a stable currency will encourage other nations to limit their inflation, as the danger of hyperinflation is even more pronounced when an inflationary currency stands beside one as non-inflationary as a 100% commodity backed currency would be. Thus, through these two mechanisms a unilateral change to a commodity backed currency would limit the distortion in interest rates, and therefore the severity of the boom-bust cycle.

## **Conclusion**

In this paper, the conditions for transmission of business cycles were examined, specifically in an international context. From there were examined specific policy implications regarding trade and monetary reform. Some general conclusions that may be drawn from this analysis follow:

1. A single nation’s monetary responsibility does not prevent the business cycle, if its trading partners engage in inflationary monetary policy.
2. The business cycle impacts the higher orders of production more extremely, regardless their geographic location, if time markets are unified.
3. If time markets are not unified, business cycles are experienced more extremely at the source of the inflation.
4. Though they may limit the transmission of business cycles, capital controls and autarky are, on the whole, destructive.
5. Unilateral monetary reform, though it will not stop business cycles, will add a further limit to their extremity, and therefore are beneficial.

The conclusions listed here are a few of the conclusions that can be drawn from, or that are reinforced by the analysis in this paper. Specifically of interest for future historical work in business cycle research should be the first three conclusions. Specifically, one could research how the rise of the global marketplace has impacted business cycles in those nations that specialize in different orders of the production structure. In addition, one could analyze how relatively monetarily responsible

economies have been victimized by their irresponsible trade partners and foreign investors.

Certainly, there are other paths further research in this area could take, but by remembering that the economy (and therefore all economic policy, including monetary) does not exist in a national vacuum, we may gain a greater understanding of the economic phenomena that have been observed in the past and will continue to be observed as long as monetary policy continues. Austrians would be wise to remember the words of Basu and Taylor: “Closed-economy macroeconomics may have been well suited to a few decades in the middle of the 20<sup>th</sup> century, but its relevance in other historical episodes—and in the globalized worlds of the present and future—seems inherently limited” (1999, 65). If we want to understand business cycles we have to understand them in the monetary context in which they occur. In the real world, that is an international one.

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