

The Austrian Theory of Business Cycles:
Old Lessons for Modern Economic
Policy?

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Abstract

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This paper reviews the “Austrian” theory of the business cycle first proposed by Friedrich Hayek in the 1920s. His theory claimed that credit creation by monetary authorities would push investment beyond society’s long-term willingness to save, creating a mismatch between supply and demand that would inevitably cause recession. The theory argued, moreover, that expansionary policies in recession could generally only postpone the necessary structural adjustment, making the subsequent correction more severe. Modern followers of this theory see Austrian features in a number of recent business cycles, including Japan in the 1980s and 1990s, and the more recent U.S. slowdown.

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I. INTRODUCTION

The global economic slowdown that got underway in 2000 and the characteristics of the expansion that preceded it have revived interest in a school of economic thought developed in the first half of the 20th century by a number of Austrian economists, including Ludwig von Mises and Friedrich Hayek (See, for example, Brittan (2001)). This “Austrian” theory of the trade (or business) cycle, which had its roots in the works of Wicksell and Böhm-Bawerk, claimed that the origin of recessions lay in the interference of monetary authorities in the setting of interest rates. During upturns, credit created with the help of central bank liquidity would fuel investment demand beyond society’s long-term willingness to save, thus generating a mismatch between the economy’s productive capacity and consumers’ intertemporal spending plans. Recession would hit when the strains inherent in this mismatch became apparent, and economic activity would not recover until past investment “mistakes” had been corrected.

Before the Austrian school was declared dead in the great post-war Keynesian consensus, the ideas of Mises and Hayek and those of Keynes competed in the 1920s and 1930s. Their views on monetary policy differed significantly: not only did the Austrians claim that intervention by the monetary authorities was the ultimate cause of recession, they also argued that expansionary policies in recession could generally only postpone the necessary structural adjustment. Indeed, given that credit expansion lay at the heart of the resource allocation problems created during the boom phase of the cycle, policy actions that sought to avoid recession—or postpone it, Austrians would say—by creating more credit could only make the subsequent adjustment phase more severe.

Hayek’s ideas were eventually rejected, and most economists today still disagree with his explanation of the business cycle. Still, modern followers of Mises and Hayek claim to see clear Austrian features in a number of recent business cycles, including the boom and bust in Japan in the 1980s and 1990s, and the more recent U.S. slowdown. In order to evaluate these claims, this note will acquaint its reader with the Austrian theory of the business cycle and point to features of recent cycles that are interpreted by some as having an Austrian flavor. It will suggest, finally, that even though the specifics of Austrian business cycle theory do not provide a satisfactory explanation for economic fluctuations, the insights in the nature of business cycles and the associated policy implications that emerge from the writings of Mises and Hayek nevertheless deserve attention.

II. A CAPITAL-BASED MACROECONOMIC THEORY

Austrian macroeconomic theory has its roots in Eugen von Böhm-Bawerk’s late 19th century work on capital theory, in which he stressed the time-consuming nature of the production process (see Schumpeter (1951) for an overview). Production adds value to resources, Böhm-Bawerk noted, but because this takes time, added value can be obtained only at the cost of postponing consumption, and those that do are rewarded for their patience by the payment of interest. This payment can be afforded because the process to which the resources were subjected over time yielded additional output. An example is the grape juice model of capital: the owner of a vineyard can harvest his grapes and sell grape juice for an immediate profit.

Alternatively, he can put the juice in vats and let “time” add value by creating wine, which can be sold for greater value. Böhm-Bawerk claimed, in fact, that the longer raw materials are subjected to the production process, the more valuable the eventual output of consumables becomes (older wine is more expensive). In other words, longer production processes (more “roundabout” processes, he termed them) add more value.²

To Böhm-Bawerk’s framework of the “roundaboutness” of production, Mises and Hayek added the notion that physical capital is not homogeneous. Rather, it was viewed as a highly disaggregated and specialized set of factors of production, each dedicated to a specific task in the manufacture of consumption or investment goods. Formally, they treated capital as belonging to one of various stages of production, and dedicating capital to a different stage of production—the process of capital restructuring—takes time and resources.³

This theoretical setup stresses the importance of intertemporal coordination between production and consumption decisions: the set of collective entrepreneurial actions that determines the intertemporal allocation of resources (including the structure, evolution and utilization of the capital stock) should be consistent with the spending plans of consumers over time. Resources employed in each stage of the production process have to be calibrated such that when a vintage of production reaches the finished-goods stage, its output is just enough to satisfy consumer demand at that point in time. Because capital restructuring is costly and time-consuming, a demand mismatch that would result if coordination failed could not immediately be corrected.

In a market economy, price signals—including, importantly, interest rates—work as the coordinating mechanism for this intertemporal allocation, rendering it internally consistent. Indeed, Austrians argue that an unfettered market system, without policy interference, is in fact the only mechanism that allows for effective coordination of intertemporal resource allocation.⁴

III. THE INTERTEMPORAL COORDINATING ROLE OF INTEREST RATES

The coordination between the intertemporal spending plans of consumers and the investment plans of entrepreneurs has its basis in the market for “loanable funds.” This is where consumers

² But note that the production process adds risk: the wine can turn out to be a bad vintage of low value; a vintage even that sours when left in the vat too long.

³ This framework has the advantage of providing a clear theoretical link between the short and long runs. This feature is largely lacking in the core of mainstream macroeconomics, which has no clear theoretical basis for a transition of the succession of “short runs” that are seen full of rigidities into a long run that is assumed frictionless, market-clearing, with continuous full-employment (see also Solow, 1997). See Appendix I for a stylized theoretical comparison between the Austrian School and other mainstream macroeconomic theories.

⁴ Specifically, Hayek argued in 1935 in a set of essays that the lack of free-market price signals made efficient intertemporal allocation of resources impossible under central planning.

offer their savings (the willingness to forgo consumption) to entrepreneurs who invest in production technologies to produce future output. After Wicksell, Austrians call the price that clears the market for loanable funds, and thus makes the intertemporal allocation of resources internally consistent, the “natural” rate of interest. At this rate of interest, the savers’ total reward for their patience—the interest payment—is exactly equal to the expansion of future output made possible by the added value of the longer, more roundabout production processes.

The importance of the interest rate as a coordinating mechanism can be illuminated by considering what happens when consumers develop a preference for postponing *more* consumption into the future (perhaps there are now more baby boomers who want to save for retirement). This change in preferences would expand the available pool of savings, i.e. increase the supply of loanable funds, lowering its price, the interest rate. This in turn would lower the cost of investment and increase investment spending, expanding the capital base. When in place, the larger stock of capital would allow for longer production processes, and would hence add more value, eventually producing a larger flow of consumption goods. This larger flow of future goods would allow the spending plans of savers in the economy (who had indeed expressed a desire to consume more in the future) to be satisfied.

IV. ARTIFICIAL CREDIT-INDUCED BOOMS

Given the important role of interest rates in coordinating intertemporal consumption and investment decisions, Austrians find the influence of central banks on monetary aggregates potentially troubling. Attempts of the monetary authority to manipulate the interest rate, they argue, will affect the market for loanable funds, inevitably rendering the plans of consumers and entrepreneurs intertemporally inconsistent.

Consider what happens when the central bank injects liquidity with the objective of lowering the rate of interest, perhaps in an effort to stimulate economic activity. The drop in the interest rate will bring it below the natural rate. This change affects savings and investment demand: because of the lower interest rates, consumers will want to reduce their saving—i.e. they will want to shift consumption to the present—while entrepreneurs will favor longer production processes (which have now become cheaper to finance), and thus will increase their investment spending. Note the seeds of inconsistency here: there will be more output available in the future (because of the longer production processes), but consumers have shifted consumption forward, and will thus want to consume less in the future, not more.

The problem the Austrians point to is the fact that credit-financed investment does not have as a counterpart the willingness of consumers to postpone consumption. Instead of a transfer of resources between savers and investors, the credit prompts competition over resources between producers and consumers. Some of the increased overall demand can be satisfied by an increase in output: both consumption and investment will rise to some extent. But as capacity constraints become binding, a tug-of-war over resources ensues, in which Austrian theorists see a clear bias in favor of investment. In this regard, they point to the importance of the manner in which the initial increase in liquidity is injected in the economy: Austrians see the credit creation that follows on the monetary easing as mainly benefiting the business sector, so that it is they who

will be able to command extra resources. Thus, investment will rise, and to the extent that consumers will not be able to spend more—since they lose out in the tug-of-war—they will be subjected to what Hayek has called “forced saving.”

V. THE AUSTRIAN BUSINESS CYCLE

The “credit-induced” boom cannot last, however. At some point, the inconsistencies that were introduced in the production process during the boom will come to light: the policy-induced changes in consumption and investment were not based on changes in preferences, and the stages of production that were put in place therefore did not correspond to future consumer plans. Austrians do not just consider that there has been *over*investment; there has in fact been *mal*investment—given consumers’ preferences for intertemporal consumption, entrepreneurs have invested in production methods that take too long to yield consumer goods. The injection of liquidity has given them the wrong interest-rate signals: consumption demand will materialize before the goods to satisfy it are available.

When it does, the “shortage” of consumer goods will force an increase in the price of current consumption goods relative to future consumption goods, which corresponds to a rise in the market interest rate. Such a rise would get firms in trouble: they had invested in long production processes on the basis of a lower interest rate, and a rise in rates would make these processes unprofitable, because of higher carrying costs. Firms profits would fall, labor demand would shrink, and household incomes would decline. A recession ensues, during which firms undertake a process of restructuring to bring their capital stock back in line with intertemporal consumer demand. Economic activity does not completely recover until this restructuring effort has been completed.

Yet, such a recession appears—at first sight—not to be entirely inevitable: the authorities could avoid the downturn by preventing the interest rate from rising: as long as firms’ investment plans are not disrupted by higher interest costs, economic activity remains buoyant. But the problem is that this requires another injection of liquidity, which would put in motion the same economic forces as identified earlier, eventually putting renewed upward pressure on the interest rate. In fact, only at the expense of ever more credit creation can the cycle be prevented from turning the peak. Yet this situation clearly is unsustainable: the central bank will at some point become concerned about the ever increasing rate of credit creation and associated ever stronger incipient inflation pressures. Once it pulls the breaks on monetary policy and allows the interest rate to rise, previous investment projects become unprofitable, and a crisis ensues.

The preceding paragraph reveals an argument with far-reaching policy implications. Austrians stress that once malinvestment has taken place, any efforts of the authorities to avoid the subsequent capital restructuring through expansionary monetary policy can only postpone the associated recession, not avoid it. In fact, they argue that such efforts may in fact prolong the required adjustment: they would intensify the mismatch by further obscuring the coordinating role of interest rates.

While Austrians see the recession as inevitable and desirable, as a part of the cycle that is required to purge the malinvestment of the boom phase, they do consider that, in the “bust” phase, a loss of confidence and a credit crunch can intensify the contractionary forces, pushing the economy further into recession than necessary. This is where Austrian theory recognizes the potential benefit of Keynesian stimulative policies: not to circumvent recession, but to avoid a situation Hayek referred to as “secondary deflation,” in which an increase in liquidity preference leads to a collapse of demand and a spiraling downward of the economy. Hayek considered such a situation quite unusual, however; one rare example was the Great Depression.

The previous paragraphs have laid out the basis for the Austrian theory of business cycles. Interference by the monetary authorities leads to an artificial boom that creates malinvestment, or a mismatch between investment and future consumption plans. That mismatch is the cause for the subsequent bust. This bust is inevitable, and the economy will not recover until the structure of production is readjusted to match the intertemporal spending plans of consumers.

VI. AUSTRIAN THEORY REJECTED

While initially generating real debate in the 1920s and early 1930s, during the later Depression years (more specifically, after the 1936 publication of Keynes’ *General Theory*) the Austrian theory of the business cycle became more and more marginalized. In that sense, Hayek’s timing was unfortunate: the Depression-era economies reacted favorably to demand stimulation, and demand management was successful also in the years after the Second World War.

The rejection was complete at the time of the “Great Keynesian Consensus.” In 1967, Hicks summarized the consensus opinion of the profession:

When the definitive history of economic analysis during the nineteen-thirties comes to be written, a leading character in the drama (it was quite a drama) will be Professor Hayek. Hayek’s economic writings ... are almost unknown to the modern student; it is hardly remembered that there was a time when the new theories of Hayek were the principal rival of the new theories of Keynes. Which was right, Keynes or Hayek? There are many living teachers of economics ... (including the present writer) who took quite a time to make up their minds. How was it that this happened?

Hicks’ attitude—an apparent incredulousness concerning a whole generation of economists having been “fooled” into seeing anything in the theories of Hayek—of course reflected the 1960s confidence of the profession in the Keynesian framework, which was subsequently to be challenged during and after the economic turbulence of the 1970s. But even Hicks acknowledged the value of some of the points made by the Austrians:

If a theory (a rather complex theory) is to have even a temporary success, there must be something about it that rings a bell. That the immediate impact of the Hayek theory was extremely misleading is not now to be questioned; yet some of the issues to which it drew attention were real issues, issues that economists have

found it [sic] hard to understand and which perhaps even now have not been completely cleared up.

Still, the rejection of Austrian theory reflected some real weaknesses of Hayek's logical framework. The main controversies concerned, first, the inevitability of recession: why exactly does the artificial boom terminate in a recession, and not just a return to potential output? Second, there were real questions about requirements for and consequences of policies that could avoid recession: did averting a downturn call for a *constant* rate of credit creation or a *constantly increasing* rate of credit creation? The difference was important, of course, as it was clear that both possibilities implied very different consequences for inflationary pressures.⁵ In the view of many, Hayek never resolved these theoretical problems in a satisfactory manner.

What's more, given the success of the post-war monetary policy framework, it was difficult—if not impossible—for economists and policy makers to accept that something as fundamental to the modern financial architecture as central bank control over the money supply (even prudently implemented) was the cause of business cycle fluctuations.

VII. THE AUSTRIAN EVIDENCE

A further reason for most of today's economists to reject the Austrian school of thought is that its proponents have presented little direct quantitative research to support their cycle theory. Moreover, the limited econometric work that has been published (see, for example, Wainhouse, 1984) has been criticized as supporting rival explanations for the cycle as well (see Yaeger, 1986). Corroboration of Hayek's theory by its supporters has tended to be rather descriptive, and focuses on three main classes of evidence: (i) economic trends that become apparent during the upswing; (ii) economic trends that manifest themselves during the recessionary phase; and (iii) the effectiveness of different kinds of economic policies in recession.

In the first class of evidence, Austrians point to the harbingers of recession early in a cycle, during the upswing. At this stage, more traditional analysts would likely see no reason to be concerned, with growth robust, confidence strong, and inflation still low. Evidence that might worry Austrians, however, would include: strong investment demand in particular sectors (this could lead to a stronger than warranted building up of production capacity—i.e. possible malinvestment); an expansion that is driven by strong growth in credit, especially to enterprises; and a diversion of resources away from the production of consumption goods towards capital goods, with an associated rise in consumer goods prices relative to those of capital goods.

The second class of evidence appears after a cyclical peak, when earlier malinvestment becomes apparent. Austrians would not necessarily expect to find a capital stock that is too large (as a result of *overinvestment*), but more specifically, a capital stock that is badly matched to the

⁵ This question is—interestingly—reminiscent of the debate in the 1960s about the Phillips curve: does maintaining output above potential require a “higher” (but constant) rate of inflation, or a continuously increasing rate of inflation?

structure of demand (as a result of *malinvestment*). They would expect to observe excess capacity in certain sectors, and a lack of capacity in others. The slump would likely also be felt strongly, they would argue, in the banking sector, which would see its loan portfolio deteriorate, as highly leveraged investment projects undertaken during the boom prove to be unprofitable.

Finally, a third class of evidence important to Austrians is the relative effectiveness of different economic policies after a recession has taken hold. They see demand-stimulating policies after the cyclical peak as merely postponing (and thus potentially aggravating) the correction of past excesses. An economy in recession that does not respond well to expansionary monetary and fiscal policies could therefore be supportive of Austrian policy views; such a situation would be more difficult to explain in a purely Keynesian framework. This conclusion is strengthened in the case where it may appear that problems are getting worse over time; it could be that expansionary policies are allowing the business and financial sectors to avoid the necessary restructuring.

Given these three classes of evidence, today's Austrians might point to the Japanese boom and bust of the 1980s and 1990s as an example of a recent cycle with Austrian characteristics. They would argue that the upturn of this cycle was driven by strong expansions of money and credit, which fueled a level and direction of investment that was unsustainable. In the aftermath, businesses suffered from chronic overcapacity, and long-term declines in corporate profitability led to a sharp deterioration of banks' loan portfolios. Moreover, the traditional Keynesian policy approach of demand stimulation was unsuccessful in bringing the economy out of recession. Indeed, some might claim, repeated injections of liquidity by the Bank of Japan may have in fact worked to delay the necessary restructuring effort.

Austrians see other episodes where policy actions have set the stage for recession. They might argue that the aggressive easing of U.S. and other monetary authorities in the wake of the 1987 stock market crash contributed to the making of the recession in the early 1990s, as the monetary stimulus avoided the early purging of imbalances built up during the mid-1980s. By the turn of the decade, a recession had become necessary to correct the earlier excesses, which had started to manifest themselves through slower growth and an acceleration of inflation. Thus, rather than avoiding recession in the wake of the stock market crash, the policy of injecting liquidity would be seen by Austrians as actually having caused the recession of the early 1990s.

VIII. OLD LESSONS FOR MODERN ECONOMIC POLICY?

Most economists would reject as overly simplistic (and perhaps as factually and theoretically incorrect) the Austrian explanations for the recessions of the early 1990s. Yet arguments familiar to Austrian ears have been invoked by more "mainstream" observers in discussions of the recent slowdown in the United States. The Economist magazine noted in its edition of February 1, 2001 that former U.S. Treasury Secretary Lawrence Summers argued at the World Economic Forum in January 2001 that:

The current economic cycle [in the U.S.] is different from previous post-war cycles. Typically, excess demand causes inflation to take off, which forces the

Fed to raise interest rates, which pushes the economy into recession. This expansion, [Summers] argued, has been more like pre-war cycles, or like that in Japan in the late 1980s: that is, driven by credit. The absence of rising inflation has allowed the expansion to go on for longer, but at the cost of a greater accumulation of debt.

Similarly, the 71st Annual Report of the Bank for International Settlements (2001) noted that:

There are many well recognized financial imbalances in the U.S. economy, including historically high debt levels for both consumers and corporations, and a mounting external debt as well. This leads some to conclude that an only moderate recovery and expansion might actually be a better outcome [than a sharp rebound], as it would allow the imbalances to be worked off gradually and avoid the possibility of a still sharper setback later.

These views have a clear Austrian flavor, although Hayek might have gone much further in his explanation about the cause of the recession and the role of policy in its eventual resolution. He would perhaps have argued that the irrational exuberance of the second half of the 1990s (having been fueled by Federal Reserve credit) had created widespread malinvestment (as seen perhaps most clearly in the ICT sector before the dot.com crash?). He would likely have maintained that the subsequent slowdown was unavoidable—even necessary—to work off the excesses of the past half-decade. He would have seen efforts by the Federal Reserve to avoid recession as counterproductive; the Fed's aggressive easing would only work to postpone the slowdown, and by doing so, would make the eventual restructuring phase more severe.

Modern mainstream economics disagrees with the specifics of Hayek's explanation and its most far-reaching policy implications—as did most of the important economists of the 20th century, for reasons indicated earlier. Yet it appears now that the wholesale rejection of Austrian ideas in the post-war era went too far. This rejection reflected a drive by the economics profession to develop a detailed theoretical macroeconomic framework that applied to all business cycles, a goal that is now recognized as overly ambitious.

Today's economists generally accept that the factors underlying business cycles have a variety of origins, of both a demand and supply related nature, and these may well include Austrian aspects. In fact, it may be that Austrian factors have become more important with the changes in the international financial system of the past twenty years. Increasingly mobile capital flows now quickly seek out investment projects that are perceived to provide the most attractive returns. In such an environment, herd behavior and bubbles could encourage malinvestment similar to that envisaged by Hayek. Again, the recent experience in the ICT sector comes to mind as a possible example.

While traditional policies of demand stimulation may appear to offer policy makers a quick fix to every impending recession, the optimal policy response to a downturn will vary according to the underlying causes. Aggressive demand stimulation in the presence of financial and structural imbalances may not always be optimal, as the earlier quote from the BIS annual

report recognizes. The economy may need other measures, such as corporate and financial restructuring, which may be delayed by expansionary policies. It is therefore important that policy makers assess carefully the factors behind each downturn before settling on a policy strategy. While perhaps not representing a robust theory of business-cycle phenomena, the writings of Mises and Hayek may still offer useful insights in this regard.

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APPENDIX I. THE AUSTRIANS' LINK WITH OTHER MACRO SCHOOLS

At first reading, the Austrian theory of business cycles appears very different from other main schools of macroeconomic thought. Yet a comparison shows that it actually incorporates a number of features of alternative theories. Garrison (2001; Ch. 12) provides a useful—if stylized—overview, summarized in Figure 1.

In the **Classical** view, the economy operates on the production possibilities frontier (ppf), and agents have a choice between consumption and investment, which therefore tend to move in opposite directions. Over time, higher investment implies faster growth, which leads to a ppf that moves up and to the right more quickly. A choice for higher immediate consumption tends to slow growth. In the Classical view, there is no room for short-term fluctuations, only secular growth.

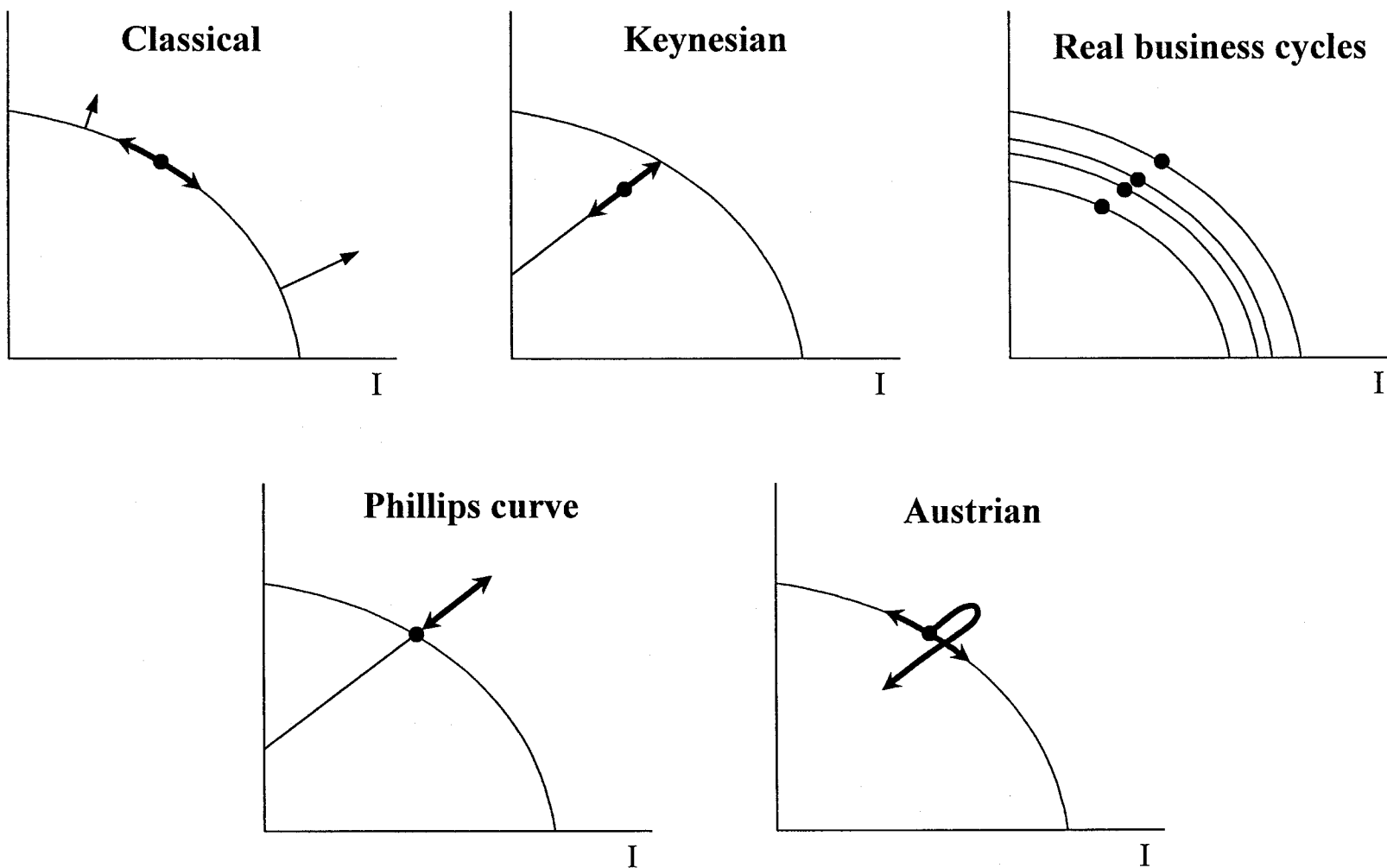
In the **Keynesian** view, the economy is generally not on the ppf. Left to its own devices, the economy suffers from a chronic lack of demand, leaving it in a continuous state of semi-depression. Expansionary economic policies can increase demand and move the economy towards the ppf. Note that investment and consumption generally move together, in response to increases and decreases in aggregate demand.

Real business cycle theories see all fluctuations as caused by real shocks. Markets are assumed always to be in equilibrium, and there are no departures from the ppf. Business-cycle related movements that appear to take the economy off the original ppf are considered to be the result of movements of the ppf itself, driven mostly by shocks to productivity.

Theories that incorporate a **Phillips curve** postulate a (temporary) tradeoff between inflation and unemployment. An unanticipated monetary expansion will allow the economy to operate beyond the ppf, but only temporarily, as long as it takes prices to adjust. The policy-induced boom is unsustainable; eventually, prices will rise and the economy will settle back on the ppf. Expectations-augmented versions of the theory require a continuously accelerating rate of inflation to sustain production beyond the ppf.

Austrian business cycle theory incorporates aspects of a number of these alternatives: it draws heavily on classical theory by stressing the preference-based tradeoff between consumption and investment, but acknowledges the potential for the economy to operate beyond the ppf, as in Phillips-curve based theories. But in Austrian theory, the economy does not simply return to the ppf after the boom. The initial credit-induced changes in investment were not based in preferences and thus prompted a mismatch between the structure of production and planned future consumption. This triggers a change in intertemporal relative prices, raising the interest rate, which triggers a recession. Attempts by the monetary authorities to stave off recession are doomed to failure; the economy needs time and unfettered interest-rate signals to readjust its capital base to the structure of demand.

FIGURE 1 - DIFFERENT VIEWS OF THE BUSINESS CYCLE



Source: Adapted from Garrison (2001), figure 12.1