

# **Problem Set Guide**

## **Economics 115**

### **Spring 2008**

#### **Part I**

1. "Gunboat diplomacy" (military intervention) was used only infrequently in response to disputes over foreign debts before 1913.

True. While military interventions did occur, they were rarely primarily due to debt issues. Instead, the main sanction facing foreign debtors was the possibility of losing access to the international capital market.

2. A central bank playing by the rules of the gold standard would have lowered interest rates in response to a loss of gold.

False. All else equal, investors will move money to the country with the highest rate of return. As a result, a gold outflow would prompt an interest rate hike.

3. An effect of World War I was high agricultural product prices all through the 1920s.

False. World War I interrupted European agricultural production, prompting an increase in production elsewhere. After the war, European producers returned. In addition, new technology increased farm productivity. The result was large world supply which depressed prices throughout the 1920s.

4. The Great Crash on Wall Street in 1929 interrupted a long period of continuous economic growth in the United States and inaugurated the Great Depression.

False. The downturn in the US began two months before the crash, and the direct effects on demand were minor since consumption was not very dependent on stock market wealth. Nevertheless, some have argued that the crash created uncertainty which hurt demand through decreased investment and durable goods purchases.

5. Countries that had experienced high inflation in the 1920s were relatively quick to abandon the gold standard in the 1920s.

False. Countries such as France and Belgium that experienced high inflation in the 1920s in fact were the last of the European economies to abandon the gold standard. One reason may be fear of returning to that high inflation, since gold standard adherence imposed anti-inflationary limits on fiscal and monetary policy.

## Part II

1. It is sometimes argued that before 1913 economic and financial globalization was an engine of divergence (it widened the gap in living standards between rich and poor countries), whereas after 1990 globalization has been an engine of convergence (it has worked to narrow such gaps). On what basis do economists and economic historians argue this? What is the logic for their argument? What mechanisms do they point to when seeking to account for these contrasting effects? Support your answer with evidence from specific countries and industries.

The first step in answering this question involves summarizing the facts on convergence and divergence over time and during the first and second waves of globalization. There are a number of references available for this, including the Pritchett and Sylla & Toniolo articles, class discussions, as well as a wealth of data available elsewhere on cross country growth over time. The evidence for divergence during the 19th century is fairly strong; for example, recall this passage in the Baldwin and Martin article: "[I]n 1750 the Third World accounted for 73% of world manufacturing output and it continued to account for over half even as late as 1830. By 1913, however, the Third World share had dropped to a mere 7.5%." The evidence for convergence today is more controversial – since it is fairly clear that even if convergence is present, it is not equally strong for every poor country – although most economists would argue that there exists a tendency in this direction.

With that empirical underbrush cleared, the next step is to understand the logic connecting globalization with convergence or divergence. One such logic is provided by the literature on economic geography. Suppose that there are two regions in the world of similar size but with the northern region slightly larger. If transportation between these two regions is very high so that inter-regional trade is very low, both regions will manufacture their own goods and there will be no real differences in economic development. Suppose now that transport costs fall to the point where trade, while still costly, is not prohibitively costly. Interregional trade may begin. If production is characterized by economies of scale, then the north's slight size advantage will give its firms a productivity advantage against the south. As northern firms drive southern firms out of the market, the north's size advantage is reinforced, and industrial production agglomerates in one region, which is essentially the definition of divergence and an example of path dependence. Finally, suppose that transport costs fall even further so that trade costs are minor, causing the northern region's larger economic size to be less relevant for exploiting economies of scale. In this case, production may re-develop in the southern region, where wages are lower.

This is a stylized story to describe the "history of the world," as it were. This framework, though, is not a complete explanation for the strength of the initial divergence or for the unevenness of the present convergence. In particular, during the period of divergence, there may have also been important institutional responses to rising incomes in "the north." The newly developed middle class or the *nouveau riche* capitalist class may challenge inherited institutional setups and demand reforms that protect their property rights. These reforms themselves could then create an environment conducive to further investment and growth, independent of globalization. In addition, today the lack of strong institutions is one of the most important barriers to convergence in lesser developed countries. There are other arguments to be made as well; the interaction between colonization and agglomeration could yield an interesting analysis, as well as the legacies of colonialism. Another interesting argument deals with the relative levels of

transportation costs and communication costs, and the role of communication costs in the flow of technology and ideas, a theory developed in the Baldwin and Martin article.

2. Alexander Gerschenkron argued that the process of economic growth differed between early industrializers and late industrializers (he used the language “advanced” and “backward” economies). What differences did Gerschenkron emphasize? Why is his framework important? What light does it shed on economic growth and development in the 21<sup>st</sup> century?

In studying the nature of economic growth, there often arises a tension between efforts to fully understand the growth experience of every country, and efforts to draw universal lessons about growth from the commonalities across countries. One concept that can span this divide is "relative backwardness." In Gerschenkron's framework, countries at the same level of relative backwardness upon the initiation of modern economic growth will experience similar growth processes; it is the differences in relative backwardness that generate different growth processes. As Sylla and Toniolo note, this allows an analysis of cross country growth within a single framework while still recognizing the individuality of each country's experience.

Backwardness is a potential boon but also an obstacle. If a country has yet to experience modern economic growth, by definition it has the potential for growth. Of course, this potential should not be construed as a deterministic fate; some less developed economies which have failed to realize growth, and the Pritchett article details this lack of convergence. In addition, as Gerschenkron emphasized, part of relative backwardness may entail the lack of prerequisites that are helpful for initiating growth.

One prerequisite emphasized in this class is a functioning financial market, which is important for channeling investment to activities with potential for growth. For example, rapid growth may be attainable by adopting foreign technology. But that foreign technology is expensive. Its adoption may therefore require the ability to mobilize capital to a degree that may be even higher than that needed by previous developers that were able to more gradually accumulate capital as the economy grew.

In response to a missing prerequisite, Gerschenkron argues that countries may develop an institution to substitute. A classic example is the contrast between the financial market in Britain with the banking system in Germany, and with the state intervention in Russia. Other examples have been raised during this semester including Japanese and Korean conglomerates, Taiwanese government intervention, and the cornucopia of policies pursued in Europe after World War II. A cogent discussion of any of these examples is sufficient for this essay.

In terms of the application of these theories for the 21st century, this answer requires a bit of creative thinking. Several students gave interesting examples. Micro-credit, a subject that has become well known after the awarding of the Nobel Peace Prize to Muhammad Yunus in 2006. Micro credit could be considered an institutional substitute to extent the availability of credit in a small scale and social setting. Another interesting example was the role of the Washington Consensus and whether or not it constrains countries from pursuing these types of innovative developments. In the rest of this course, we will encounter many more examples that will be worth analyzing in this framework.

### Part III

1. “The economic and social changes that resulted from World War I were directly responsible for the Great Depression that followed.” To what economic and social changes exactly does this statement refer? What, in your view, were the most important connections between the Great War and the Great Depression?

This answer will focus on the legacy of the war for the operation of the gold standard in the postwar period. This should not be construed to mean that no other answers were possible to this question, including discussions of the war's impact on agriculture, international trade, inflation, migration restrictions, and other subjects as long as they can be reasonably argued to have a role in explaining the Great Depression. With respect to the gold standard, the war led to several developments that undermined the stabilizing mechanisms available under the gold standard, resulting in a global financial framework that was significantly more fragile than before the war, and left vulnerable to the shocks of the late 1920's.

The war debts and reparations that characterized the 1920's contributed to postwar financial fragility. Germany owed reparations to the Allies, who in turn owed war debts to the United States. The Germans then were able to attract funds back from the United States by keeping high interest rates, and through the efforts of some German-American bankers. The shocks interrupting this flow of funds were the interest rate hike in the United States in 1928, along with the French accumulation of gold. While these disruptions are arguably not directly results of World War I, the role of World War I is important in making the system vulnerable to these shocks by keeping European countries in tenuous balance of payments positions throughout the 1920's.

The dual shocks may also be interpreted as indirect effects of the war inasmuch as they represent the lack of coordination among countries in preserving stabilizing flows of capital. World War I marked the passing of international economic dominance from Britain to the United States, but the United States did not take on the leadership role that is often ascribed to Britain in the prewar period. United States interest rate policies, the refusal to forgive war debts and reparations by various countries, and the general lack of cooperation that resulted from the war damaged the self-stabilizing mechanisms available under the gold standard. In particular, there was limited direct cooperation among central banks in coordinating interest rate policies and/or giving direct loans to one another. Private investors also failed to send funds in stabilizing directions. The war also prompted the extension of the franchise which, along with a concern for domestic economic stabilization, arguably weakened the credibility of central banks' commitment to defending gold parity. When that gold parity was threatened during the depression, investors again had incentives to take a relatively riskless bet in favor of devaluation.

2. One historian has written that “Government policy, rather than limiting the severity of the Great Depression, only made the situation worse.” To what governments, specifically, and to what policies is he referring? How was it, exactly, that they made the situation worse? What explains the counterproductive nature of the policy response?

There are several policies that could be discussed with respect to this question. It is important, though, to note that the question refers to the worsening of the depression

rather than the initial causes of the depression, and so any answer should be similarly oriented.

There is a strong argument that the Federal Reserve could have done much more during the depression to alleviate the pressures on the banking industry, and more generally to stabilize and stimulate the economy. For the most part, the Fed failed to fulfill its role as the lender of last resort. As a result, banks facing liquidity problems rather than fundamental insolvency problems were (unnecessarily) forced into suspension. In addition, the Fed only engaged in one even moderately large expansionary open market operation, in 1932, and failed to follow through. Although nominal interest rates were low, there was still room for further downward movement. In addition, due to a lack of confidence that the Federal Reserve would re-inflate the economy, expectations of further deflation, and so real interest rates were extraordinarily high.

It is difficult to understand why the Federal Reserve pursued these policies. Some blame the death of Benjamin Strong in 1928 as depriving the Fed of a strong leader. Others argue that members of the Federal Reserve Board were ideologically predisposed against intervention or were afraid of creating another equity bubble. There is also the possibility that expansionary actions were precluded by commitments under the gold standard - that lowering interest rates might cause an outflow of capital, or that lending to illiquid banks was impossible without excess reserves. Recent work has cast doubt on the constricting role of the gold standard, since the 1932 open market operation did not cause investors to fear devaluation, and the minutes of the Federal Reserve meetings reveal little discussion of the constraints of the gold standard.

Nevertheless, Roosevelt's devaluation did seem to have an immediate change in the expectations and was followed by the first sustained expansion of the 1930's. Both in the United States and internationally, the timing of devaluation was an important policy decision, and as discussed in class and the readings, devaluation was highly correlated with the timing and extent of recovery. As discussed in question 5 of part 1, there were several factors influencing this policy decision. Fundamentally, the Great Depression is the end of the era in which governments were willing to sacrifice domestic economic stability for the sake of external stability in the form of the benefits of the gold standard.

The lack of international monetary cooperation is another realm of policy that could be discussed. Lack of cooperation internationally encouraged destabilizing capital flows and the collapse of liquidity in the gold exchange standard. Later in the depression when countries devalued their currencies, beggar-thy-neighbor issues potentially meant that recovery only came at the expense of other countries, especially when international cooperation on the timing of devaluations was not forthcoming.

Finally, one element of the Roosevelt administration's cornucopia of policy responses, the National Industrial Recovery Act, can be cited as unintentionally increasing the severity of the depression. The diagnosis on which the policy was based -- essentially that low prices were due to overproduction -- led to the policy response of restricting output through several mechanisms, a response fairly inappropriate given the extent of idle capacity in the economy.