

**Problem Set Guide**  
**Prepared by Jonathan Rose**

## **1 Identifications**

### **1.1 Portfolio Investment Flows**

These flows refer to the ownership of foreign securities, including equity, and private and public bonds; the last two were particularly large during the first wave of globalization. The Nayyar article contains some descriptive statistics to indicate the growth of this type of investment during the first wave of globalization. Portfolio flows were certainly important in the growth of recipient countries during the first wave; for example, there were large flows from Britain for infrastructure development in the United States, Canada and Australia. While this form of investment accounted for the majority of international capital flows during before 1913, since 1970 the dominant form has been foreign direct investment, in which investors actively control the operation of the assets in the recipient country. This reversal can be understood in the context of the lesser quantity and quality of information flows during the first wave, which encouraged investors to invest in relatively more secure bonds, and in projects with clearly defined physical assets, such as railroads. Those long term flows contrast with were less susceptible to sudden stops as many forms of modern investment, though, creating a tradeoff between growth and financial crises.

### **1.2. Laissez Faire**

With respect to the world economy, laissez faire characteristics typically include the minimization of government interference with cross border transactions such as trade, capital flows, and migration. Not all liberalization was voluntary, however, since some of the liberalization is attributable to the impositions of colonial powers. Nevertheless, these cross-border liberalizations were a defining characteristic of the first wave of globalization when considered in contrast with pre-1870 history, and with the interwar period.

The gold standard is a helpful context in understanding these policies. Capital restrictions would have been a barrier to the maintenance of gold parities, and trade barriers would (arguably) have blocked a potential adjustment mechanism. In many senses, the gold standard entailed subservience of domestic priorities to international ones, which naturally complements laissez faire policies.

From a modern perspective, freedom of migration during the first wave has few modern parallels. However, tariffs are lower in many countries today, and indeed while tariffs may have fallen during the first wave of globalization, they remained substantial and many European countries relapsed into protectionism beginning the late 1890's. Capital restrictions were historically high during the Bretton-Woods era, but today are beginning to resemble the liberality of the first wave.

As an aside, students should be careful about assigning laissez faire policies causal roles in the increased trade, capital, and labor flows. While certainly the lowering of barriers had some positive effect, there were other shocks affecting these flows, particularly developments in transportation and communication technologies.

### **1.3 Social Capability**

Poor countries almost tautologically have a potential for rapid growth and income convergence, but the realization of that potential is not universal. Abramovitz proposes the concept of social capability to help explain the heterogeneous abilities of poor countries in receiving and implementing more advanced technology necessary for convergence; "technological gap and social capability define a countries potentiality for productivity advance"(390). In general, convergence is aided by education embodied in human capital, property rights that give incentive for entrepreneurship and investment, the stability of financial institutions, and other more general institutional factors such as experience with market economies. If a country is attempting to import technology, education naturally

complements this transmission, and the proper institutional framework creates profit incentives for investment and entrepreneurship.

#### 1.4 Substitution for Prerequisites

This is a framework proposed by Gerschenkron to compromise between the Rostowian school of thought, in which all economic regions are theorized to proceed through the same sequence of steps in development, and another school of thought which emphasizes the historical specificity of each region's development. Gerschenkron proposed that there are systematic ways in which a region can deviate from the Rostowian steps, allowing for each country's realized path of development to be different while uniting these heterogeneous outcomes in a common framework.

For example, Gerschenkron noted the relationship between the extent of economic backwardness and the nature of the financial system during development. He proposed countries that industrialized late tended to substitute institutions (in the form of state sponsorship or very large banks) for financial markets. This allowed the countries to mobilize large amounts of investment necessary for catching up to the world technological frontier, when that amount of investment would not be otherwise be easily available to a relatively "backward" country in financial markets.

### 2. Essays

A good essay will probably overlap multiple perspectives and discuss their interrelations, while providing some creative analysis of the subject. We must preface these essay outlines by noting that there are many valid ways of answering these questions. We try to provide a synthesis of these various approaches, but practical limitations prevent a full exposition of each interesting comparison and contrast. As a result, the discussion contained should be treated more as a pedagogical guide and outline of ideas rather than as a definitive source for assessing your individual essay.

#### 2.1 Essay 1

*We have read a number of articles by Abramovitz, by Pritchett, and by Sylla and Toniolo designed to explain why some economies began to experience modern economic growth in the 19th century while others did not. Do these articles supply a satisfactory answer to this question? What are their most glaring limitations?*

This question affords an opportunity to synthesize the various viewpoints on convergence and divergence contained in the three articles. All three articles, it seems, would agree on the potential for convergence by poor countries. The evidence in the Pritchett article against long term cross country convergence should be contrasted to the hedged and more limited evidence in the Abramovitz article in favor of convergence. Pritchett's argument seems to be that the very existence of poor countries means convergence must be false, which is not a full answer to the question of whether poor countries will converge in the future. Is Pritchett playing semantic games by using an active verb --- diverge --- to distract the reader from noticing that what he has proven is more passive, an *absence* of convergence which we didn't really believe anyway? This is an interesting criticism, but it shouldn't be overstated. Convergence is difficult to disprove due to lack of data, which makes Pritchett's test interesting and useful, and the limited goal of his essay is more of virtue than a vice. At the same time, the frame of divergence encourages an overly parsimonious and dichotomous view of the world in which divergence and convergence are the only options.

Answers could then discuss whether Gerschenkron and Abramovitz provide sufficient nuance to account for Pritchett's findings against convergence, and then address the next step of the debate, which is to account for the diversity of ways in which poor countries have failed to grow. Do Abramowitz and Gerschenkron make similar predictions? Do their predictions match the empirical facts documented by Pritchett? Or are the three articles as unconcerned with each other as ships passing in the night? A good answer should limit exposition and also limit the temptation to poke small holes in each article while leaving the larger issue of growth untouched; there is a great deal of interesting discussion possible by exploiting the information in each article to assess the others.

Basically, the Gerschenkron argument focuses on the mechanism of realizing that potential, while the Abramovitz article focuses on explaining the differential realizations of that potential. The shortcomings of each are more apparent when considered together. Gerschenkron's argument proposes the possibility of substituting for

prerequisites without analyzing the determinants of whether countries have been able to substitute for prerequisites. Historical examples of convergence through this mechanism, such as state intervention during South Korean industrialization or the development of large banks during German industrialization or arguably the unique brand of development occurring today in China, all beg the question of why some countries were able to substitute and others not. Conversely, Abramovitz's argument ignores the diversity of historical convergence examples; surely the various manifestations of social capability will lead to different types of growth. Do these articles provide complementary explanations? There's a lot of room for creative and critical thinking on this issue.

Both Gerschenkron and Abramovitz make rather vague predictions, which makes their theories difficult to falsify, violating a fundamental principle of good economic theory. Social capability is intuitively plausible but challenging to measure. Similarly, it's difficult to extrapolate the Gerschenkron's argument to modern countries that are more "backwards" than the ones considered by him, and countries that are attempting to industrialize in an increasingly globalized world. Is substitution for prerequisites an historically specific argument that applied well to late European industrialization, but not very well to, say, African industrialization? Is social capability a better explanation? Is social capability endogenous in the long run? What determines the ability of countries to substitute for prerequisites? I can't discuss all of these questions here, but a good essay could focus on any one. Nevertheless, these are good arguments but slightly nihilistic and unproductive, not to mention a bit unfair to their proponents, who did not seek to make universal theories of growth. In some sense, these articles are best understood in the context of the literature developing at the time of their writing, and while in retrospect they miss important points, the points they did make have been helpful in organizing thought on the subject.

## 2.2. Essay 2

*The debate surrounding globalization revolves, in part, around its implications for income inequality, both within countries and between them. What lessons, if any, can we draw about that debate from the first age of globalization (between 1880 and 1913)? In other words, what were the implications for income inequality then, and would we expect similar effects today?*

A good answer to this question should start by defining globalization. Globalization could be described as a reduction in the extent to which distance disrupts economic transactions. This could be caused by decreases in transport costs, increases in communications, or decreases in policy barriers to trade, investment flows, or migration. Deliberation on the meaning of globalization hopefully encourages a focused discussion of inequality that directly relates to aspects of globalization, rather than general discussion of growth, inequality, and the long run history of divergence and convergence that are only indirectly related to globalization.

Focusing on inequality *between* economies, how do the two waves of globalization compare?

First, we should note that it is common to hear two opposite arguments, that globalization might increase inequality by allowing an economic core of the world to dominate the periphery, or it might decrease inequality by allowing the periphery to engage in more international economic activity. These two views can be synthesized, though, by taking a long run perspective. A few centuries ago, the regions of the world were probably more uniform in development than at most other points since. Some regions, however, had slight advantages, in the form of better market access, better institutions, proximity to early developers, etc. As transport costs fell (partly an endogenous response to growth), these primarily northern Atlantic regions benefited from becoming the core of the world economy. Countries on the periphery had difficulty growing, as cheap manufactured goods from the core undercut firm formation, growing wealth allowed imperialism. This de-industrialization of the periphery is conceivably reversed as transport costs drop further in this second wave of globalization, since core economies have an incentive to move production to lower wage regions, arguably making this wave of globalization more equalizing.

Discussions like this suffer from aggregation bias. While the whole world may experience convergence or divergence during a 50 or 100 year period, regions of the world may experience the opposite. We know that the north Atlantic economies experienced some convergence during the first wave of globalization, partly due to trade and migration. Two main causes of the increase in trade are decreases in transport costs and decreases in trade barriers, as discussed in the identifications. However, the type of trade that resulted differed between the two waves of globalization, and this has implications for inequality. Inter-industry trade in different goods helped drive wage

convergence in Atlantic economies in this period. More recent trade is dominated by intra industry trade between rich countries, which prompts less of the economic recomposition that drove wage convergence in the first wave.

In addition, some of this wage convergence was due to international migration, in which there are clear differences between the two waves of globalization due to policy restrictions. This discussion contrasts with the argument in the first paragraph which suggested convergence of economic structures from falling transport costs.

Another form of aggregation bias arises from treating countries as a unit, given it should be unsurprising that there are winners and losers within a country from globalization. At the same time, we should remind ourselves that there are gains to exchange, and we should be careful about declaring any country an absolute loser from the changes caused by globalization rather than *relative* loser. If globalization causes distance to be obstructing economic exchange less, this suggests that unskilled labor in rich countries should lose due to the large pool of unskilled labor being added to the world economy. This is unsurprising, but it is interesting to contrast this with the first wave of globalization, in which the inability to split the production process across countries, and other communications difficulties had less stark implications for unskilled labor.

Another area of discussion that I will briefly note is investment flows. There are many interesting questions. Fundamentally, do investment flows differ in such a way as to have implications for between country inequality? Do the recipients of investment flows differ across the two waves, and does that have implications for inequality? Some of this was discussed above in the identifications.

Finally, a note on the distinction between correlation and causation. Students need to be careful about asserting causal statements from observed correlations. While it is true that there was great divergence in world economic growth during the 19th century, and rising inequality within OECD countries more recently, it does not immediately follow that globalization caused this divergence simply because of their parallel trends. There were many shocks to the world economy during these periods of globalization, especially in the form of technological change, and it would be a mistake to presuppose that technological growth or other shocks had no role in propagating inequality between or within countries.

### 2.3 Essay 3

*It is sometimes said that the classical (pre-1914) gold standard was as much a political as an international monetary system. What is meant by this statement? What does it imply for the kinds of international monetary systems that are feasible today?*

A good essay should explain what constitutes a political act in the context of the gold standard. Actions of central banks are not necessarily political, and students should be careful to make that distinction. In some sense, though, the autonomy of central banks in pursuing policies consistent with the gold standard or with domestic stabilization is possible only by the allowance of politicians. In addition, central bankers themselves at times have political goals that may conflict with other countries' operation of the gold standard. This justifies a discussion of the coordinating actions of central banks in a political framework.

The point is that the gold standard was not self-perpetuating without proper political support, whether manifested by diplomatic actions to encourage cooperation, domestic non-interference with central banks' defense of gold convertibility, the general appearance of a credible commitment of the government to the gold standard, and other political actions that create economic instability that indirectly create international monetary instability.

*Credibility of commitment to the gold standard.* Maintenance of the gold standard required a commitment by a government to prioritize gold convertibility over other policy goals. For example, if a country experiences gold outflows, this could be counteracted by raising the discount rate. Empirically, however, we should note that there is little evidence in support of Hume's price-specie-flow mechanism, or that central banks complied with the "rules of the game." Instead, with a credible commitment, investors would anticipate government policy, causing capital to flow in stabilizing directions. In the interwar period, when commitments were less credible, capital would instead flow in the destabilizing direction, since investors would have essentially be taking a one-way bet as destabilizing flows put pressure on already-uncertain gold convertibility.

What determines this credibility? After WWI, other priorities, such as domestic stabilization via interest rate policy, became increasingly important as suffrage was extended to workers. The priority of domestic stabilization was reinforced by economic theories linking unemployment and interest policies. In addition, increasingly rigid wages and prices meant that balance of payments deficits were increasingly manifested as employment problems rather than price movements, which are more easily accommodated.

These political issues suggest that the gold standard would be difficult to reinstate today; it would be disingenuous to believe either that surrendering domestic stabilization to the needs of gold convertibility or that subjecting the money supply to shocks from the global supply of gold would be politically acceptable.

*International Cooperation.* Before 1913 central banks maintained similar discount rates across countries to prevent systematic gold flows in or out of a country. The exception to this was during crises, when asymmetric rates were instrumental in stabilizing capital movements. Central banks could also coordinate by lending reserves to each other during crises. A classic example is the Baring crisis, in which doubts about the solvency of the Bank of England precipitated outflows, but France and Russia lent gold to the Bank of England. In this way, political cooperation created international lenders of last resort.

These types of central bank cooperation were less prevalent during the interwar period. A central issue during the interwar period was the worldwide shortage of gold reserves. Conversion to a foreign exchange reserve is a solution to this issue; however, it was difficult for individual central banks to convert to the foreign exchange standard, because speculators may sell that currency for one backed directly for gold. Coordinated central bank action would have solved this problem, but it was not forthcoming for political reasons, and so while countries eventually did convert to the foreign exchange standard, the lack of coordination created unnecessary instability in that process, and the lack of international political consensus for the exchange standard created more problems, such as the French accumulation of gold. There are also interesting points to be made about the declining centrality of Great Britain and the Bank of England, and the ability or willingness of the United States of the Federal Reserve to play the same stabilizing role.

There are interesting analogies to be made to today's international political environment, and some essays had cogent discussions of these. For example, if the United States and China were to cooperate in maintaining a common international currency, it would be reasonable to expect them to have to address other sources of friction in international trade and finance. In addition, the varied history of international lending in times of aid, such as the Mexican 1994 crisis, the Russian ruble crisis, etc., make for an interesting discussion about the conditions under which international lending is forthcoming in today's political environment.

*The gold standard as an external constraint.* Another political aspect of the gold standard is its ability to signal information about internal political conditions. There is a literature in economic history that examines whether the gold standard acted as a constraint on politicians, forcing them to address imbalances before they threatened gold convertibility. Some researchers have argued that the gold standard was a *de facto* "seal of approval," because if a country was able to maintain gold convertibility, that signaled a fiscally sound political environment. In the same spirit, in the interwar period, reversion to the gold standard was encouraged by many politicians as a disciplining device.