Problem Set Suggested Answers

These answers were thought out as a guide of what a correct answer could have been. Do not consider them exhaustive.

Part 1

Identify each of the following terms or concepts and explain its relevance to 19th and / or 20th century economic history. Each of your answers should not exceed 200 words. 10 points each.

1. Path-dependence

The relevance of this concept is that it suggests that “History matters” in an economic dynamics sense. To be more precise, many economic models suggest some sort of final equilibrium that will be reached no matter what were the initial conditions. That is, the system always converges to said equilibrium.

Path-dependence is the notion that final outcomes do depend on initial conditions or “historical accidents” because these initial conditions constrain the options of economic agents at any given period of time. Therefore, economic analysis has to take into account, as Paul David says, the “essentially historical character” of dynamic economic behavior. This implies that the observed final outcomes wouldn’t have been necessarily reached from all potential initial conditions.

David gives the example of the Qwerty keyboard and how its early dominance of the keyboard market constrained the ability of potentially more useful keyboard layouts to gain market share, mostly thanks to network effects and economies of scale. Other examples could be related to how previous historical experiences condition the reaction of governments to economic shocks, e.g. going back to the Gold Standard in the interwar period because it was associated with stability even if it couldn’t provide that stability anymore.

2. Agglomeration economies

By agglomeration economies, economists mean that the costs of production decline when production is concentrated in one, often geographically well-delimited, place. This may be true because of efficiencies from sharing a common labor pool, information gained from physical proximity to other firms, and cheaper prices for common inputs.

Agglomeration economies can be useful to explain convergence/divergence and industrialization, as explained in Baldwin Martin 1999. In their stylized model, the world starts with two similar regions and there are high transport costs, little trade and industry is primitive. Then, there is a decrease in transport costs that generates agglomeration forces in one region: “North”. These forces become a virtuous cycle within the “North” (in the real world, the region was Europe), where innovation spillovers and interactions between entrepreneurs attract investment, which leads to higher income which in turn implies larger local markets that are more attractive for
investors. Hence, “North” industrializes and South de-industrializes because its initial industry can’t compete with the northern firms. This then becomes a stable equilibrium of an industrialized North and a primary-goods producing South as long as transport costs decline more than the cost of ideas. This was divergence.

However, at some point transport costs can’t fall further (due to natural and physical reasons), while the cost of ideas continues falling. The South can now introduce Northern innovations, which spurs the same industrialization process the North had, so the North starts to de-industrialize (usually moving towards services) and the regions converge again. Note that this second part actually means that agglomeration effects have been lessened.

3. Deflation

Deflation is simply a persistent decline of the general price level. This increases the real purchasing power of money. Another way to think of it is as negative inflation. However, the effects of small levels of deflation are more complex than similar levels of inflation. One of the main reasons for this is that interest rates have to be positive or zero, but cannot be negative. Hence, while savers can ask for higher interest rates when there is inflation, debtors cannot ask for “below-zero” interest rates. Debtors such as farmers in fixed mortgages are hurt by deflation because they have to sell more products (the prices of which are falling) in order to pay back.

Historically, we reviewed two main periods of deflation: in Gold Standard-based 19th Century when economies were growing and gold was in short supply. The other period was the Great Depression, when demand fell sharply and contractionary monetary policy. Note that while deflation is associated to the Great Depression, it is not necessarily a consequence of recessions nor it happens only during them.

4. Mundell-Fleming Trilemma

The Trilemma is a result from the Mundell-Fleming open economy model, which states that countries cannot have more than two of the following three things: i) A fixed exchange rate, ii) an open capital market (no capital controls), and iii) an independent monetary policy (that is, the degree of freedom the Central Bank has to set interest rates).

For example, countries on the gold standard (like the U.S. from 1873-1914) chose to have a fixed exchange rate and open capital markets. They did not have independent monetary policy. Instead, the government had to set the interest rate in order to preserve gold convertibility and stabilize the monetary system, which meant there was no room for independent monetary policy. Today, this suggests that countries that attempt to have an independent monetary policy (which is far more necessary because of political pressures to respond to domestic conditions) and a fixed exchange rate, cannot do so without capital controls and very credible commitments to the exchange rate.
Part 2

Answer BOTH of the following two essay questions. Please limit your answer to each question to 600 words. 30 points each.

1. Between 1880 and 1914, the U.S., Britain, Germany, and many other countries successfully fixed their exchange rates while allowing unregulated international capital flows. Describe the mechanism by which this system worked and whether you believe that there were ‘rules of the game’ that made it go more smoothly. After the World War I breakdown, what were the events that made countries desire to go back to the pre-war system? Was the system successful in the interwar period and do you believe that the rules played an important role in its success (or lack of it)?

In the classical gold standard era (1880 to 1914) most countries fixed the price of their currency in terms of gold. This meant that the exchange rate was fixed between any two countries on the gold standard. Fixed exchange rates were accompanied by capital mobility (no capital controls). (lecture 2/5).

Eichengreen p. 24-29 tells us that David Hume had explained how the gold standard could work through a Price-Specie flow mechanism, where any current account imbalances would adjust automatically under the assumption that gold coin was the currency. For example, if imports exceeded exports in a country, that country began having gold outflows as it paid for the excess imports. Eventually, gold coin became scarce, which drove down the price of domestic goods, whereas imported goods and gold became relatively more expensive. This decreased import demand until the current account deficit was closed. There are versions such as the Cunliffe model that add paper money and interest rates, but nothing essential changes.

However, Hume’s model and its variants had trouble explaining why gold flows were very small during this period. Keynes suggested that the reason was that Central Banks played by a set of “rules of the game”: whenever there was the threat of a gold outflow, the Central Bank would proceed with contractionary monetary policy through the discount rate or open market operations to apply downward pressure on prices and make exports more competitive without gold outflows. Eichengreen points out that in the short-term, these “rules” were frequently broken, but there was an overall belief that Central Banks commitment to the gold standard was credible (mostly thanks to the lack of political pressure to address other economic issues). The emergency international lending system that developed among European Central Banks added further stability and credibility to the system (Eichengreen, p. 33).

Credibility was crucial because whenever a currency got weaker, speculators would buy it expecting the Central Bank to do whatever it took to appreciate it. This behavior by speculators became a self-fulfilling prophecy –the extra demand for the currency led to its appreciation (Eichengreen, p. 31).

After WWI and the suspension of the gold standard in much of the world during the early 20s, imbalances such as war reparations generated high inflation and in some cases, hyperinflation. This instability drove the desire to go back to the gold standard which was associated with better, more stable times.
Unfortunately, the interwar gold standard did not have the stabilizing properties of the prewar version. For starters, the political environment applied pressure on Central Banks to address production and unemployment (which were finally known to be affected by Central Bank decisions), which undermined their credibility to commit to the Gold Standard. Also, countries with large gold inflows, such as the United States and France, refused to increase their interest rates (as the rules would have required) and instead pursued very tight monetary policies (Eichengreen p. 61-66). Finally, the US –largest holder of gold reserves- was unfamiliar with the Central Banks lending system Europe had used in the prewar period and reluctant to support a new one, so a crucial mechanism was missing.

2. It is often said that the stock market crash of October 1929 caused the Great Depression. Is this assessment correct or were there other factors that might have caused or deepened the crisis? Today, we face another economic crisis. Could it become another Great Depression? Why or why not?

As described in Atack and Passell 1994, the stock market crash in October 1929 became the most symbolic cause of the Great Depression due to its visibility, but industrial production had been declining since the summer of 1929 which was in turn due to an interest rate increase by the Fed in January 1928 in an attempt to prevent diverting resources from productive uses (speculation in stock market). Hence, it is believed that the stock market crash was not the direct or only cause because of the timing of the event. Moreover, the large decrease in consumption cannot be explained by the stock market crash alone because conventional economic model suggests only a small marginal propensity to consume out of stock market wealth.

It is also important to note that the factors that might have caused the initial recession are not necessarily the same as the factors that deepened it into a Great Depression. For example, the large and unexpected decrease in consumption expenditures, especially on big-ticket items, as espoused by Temin or the loss of business confidence that undermined investment (according to Keynes) could have initiated the recession.

This recession was then worsened by the banking crises (three of them in the U.S. but also important bank failures in Europe such as Credit Anstalt in Austria) and by bad policies. On the monetary side the problem was, according to Friedman and Schwarz, in the sense of providing too little liquidity to avoid the bank failures; according to the Austrians, in the sense of interventions being unhelpful and disruptive. On the fiscal side by timid policies (Hoover did increase fiscal expenditures but it wasn’t enough to compensate for falling internal demand and exports). That is, governments and central banks failed to respond in stabilizing fashion, for a combination of ideological, historical and institutional reasons. Then the crash of stock markets, starting on Wall Street, depressed economic activity further.

However, no picture of the Great Depression is complete without acknowledging its international scope, so we should also include international trade and finance factors such as the instability of the interwar Gold Standard which also distorted trade goods’ prices. The combination of the gold standard and German war reparations turns out to be especially important to explain why Europe
was hit by the Depression too. The Gold Standard also helps explain the behavior of the Fed during the crisis: the tightness of monetary policy reflected fears of gold outflows and a commitment to the gold standard. Also, U.S. protectionist trade policies such as Smoot-Hawley Tariff started a vicious cycle of protectionist policies that depressed trade and decreased demand for U.S. domestic goods. Overall, the stock market crash was only a proximate cause, not an ultimate cause of the Great Depression.

Could the current crisis become another Great Depression? Institutions have changed a lot (partly as a reaction to the GD). For example, the central banks now attempt to provide liquidity, commercial banks in trouble are rescued, the fiscal reaction is more aggressive, public sector is larger where spend is less volatile, and many currencies are under floating exchange rate regimes, the dollar in particular. This would seem to indicate that another Great Depression is unlikely.

However, we observe that some factors are repeating themselves: besides the obvious stock market crash, there has been a substantial decrease in consumption of big-ticket items such as houses and business confidence (investment), both of which seem hard to restore. On the policy side, the looseness of monetary policy doesn’t seem to be working (possibly due to a liquidity trap), fiscal policy might be too timid yet again and is not being coordinated internationally (e.g. Europe is being far less aggressive than the U.S. so far). Additionally, banks continue being very weak even after the initial rescue attempts. This would suggest that the crisis could still deepen.