Macroeconomics Assignment

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Q 1. Origin of US Financial Crisis

As the real estate market of the USA started to reach its potential in terms of expansion, the construction activity decreased significantly. This decrease in activity led to the loss in the value of financial assets backed by mortgages. The losses started to mount, creating tension in the global financial market. The US economy entered into a recession by the year-end of 2007 (Federal Reserve History, 2018). Asset-backed commercial papers, which are short-term investments with a maturity date between 90 to 270 days, severely depreciated. The banks or financial institutes issue the security of such asset-backed commercial papers. Shortly after this, Lehman Brothers and Bear Stearns declared bankruptcy. At around the same time, AIG, an American multinational finance and insurance corporation, declared help from Federal Reserve Support for a bailout (Burkhanov, 2018). The bankruptcy of the Lehman Brothers created a ripple effect in the global financial markets. Several banks in the USA have to wind up operations from 2008 to 2015 due to the long term effects of the financial crisis. Apart from the US, countries under European Union were also severely affected. The diagram mentioned in Fig 1 briefly mentions the important events leading to the US financial crisis in 2007- 2008.

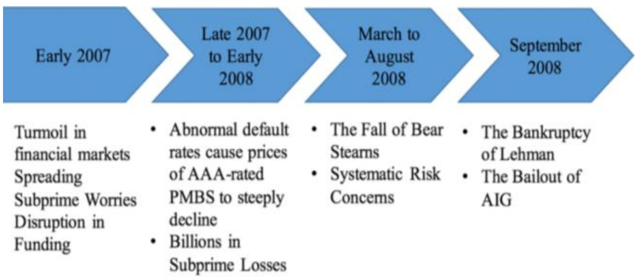

Fig 1: Timeline of financial crisis 2007-2008

(Source: Shabestari, 2020)

Q 2. Effect on US GDP

If the effects of the financial crisis of 2007-2008 on US GDP are to be considered in the long run, then two concepts need to be applied. One of the concepts is that GDP calculation is done through the income approach and supply and demand adjustment. A long term financial crisis causes a contraction in the total output of the economy (Kouki, 2018). Rising inflation, one of the after-effects of a financial crisis, leads to a decrease in consumer spending. A high-interest rate from banks discourages business houses from taking loans. As loan disbursement decreases, the rate of new investment or continuation of previous investment commitments also slows down. The government can increase spending on its part to boost the economy, but it's a slow process, and thus there are no immediate benefits. The GDP, on account of low spending and low investment, keeps contracting. As demand keeps shrinking, factories slowly start decreasing the level of output. This leads to an increase in unemployment over some time. For example, in the long run, as productivity decreases, average supply also decreases, and this causes AS (aggregate supply) curve to shift left in fig 1. The average demand also adjusts until equilibrium is reached between supply and demand. This equilibrium state is the real GDP of the economy at that time.

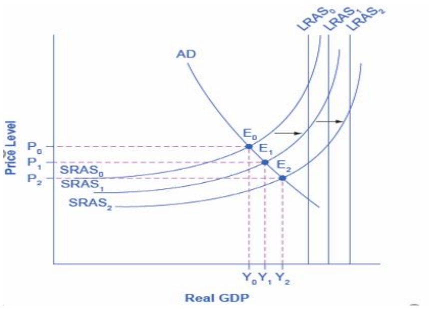

Fig 2: Productivity increase shifts AS curve to the right.

Source: (Kouki, 2018)

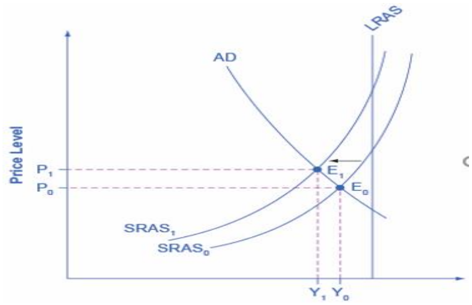

Fig 3: Higher production cost shift AS curve to left

(Source: Kouki, 2018)

Q 3. Effect on US Inflation

The financial crisis, in the long run, can cause an increase in commodity prices, contraction in economic activity, and depreciation of the value of the USA currency. There are four types of inflation: demand-pull, core inflation, hyperinflation, cost-push, wage push, and imported inflation (Ha et al., 2019). The probable scenario in the long-run inflation is explained in the light of wage push inflation. After the onset of the financial crisis of 2007-2008, as domestic output production decreases, equilibrium in the supply and demand will be disturbed. This is because demand will outpace supply in the market. For this reason the price of products and services will slowly start building up, working people will start demanding higher wages to

Commented [AB2]: Explain how the GDP is linked with inflation because everything is interconnected.

buy essentials. As producers start conceding to the demand for higher wages, the increased cost to companies will be passed to the products and services. In this way, the increase in the input price of production will increase the cost of final products and services. In this way inflation sustains in a cyclical way. The impact of the rising cost of production on price level can be explained with the help of the AS-AD curve as below. In Fig 4 below, a rise in input price like labour cost can shift the AS (aggregate supply) curve from its current position to the left. This, in turn, causes the price level initially at P0 at equilibrium E0 to shift to a higher rice level P1 at equilibrium E1. In the long run, this inflation can turn into hyperinflation, where the price increase of goods and services is more than 50% per month.

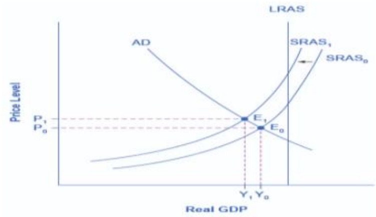

Fig4: Effect of input price on final output price

(Source: Ha et al., 2019)

Q 4. Effect on US labour market

A long term financial crisis will lead to fall in private consumption and government spending. As demand for goods and services decline, the supply has to also come in equilibrium with demand. For this reason the supply will also decrease. As produces cut down on manufacturing, in order to keep the production cost in parity with the number of good produced, the labourers that are in excess will be also cut down. This will increase in the number of unemployment. In some cases the total employment can fall much below the reduction in production. There will also be considerable churning in employment across various sectors, employment statuses, and locations. A long financial crisis can lead to sharp currency depreciation. This in turn can lead to a fall in real wages. To bring income stability, families can increase their participation in the labour force. The effect on the labour market can be different for different industries. For example, the service sector which in most cases is the first and worst to get hit will see a greater unemployment rate. The manufacturing sector will shrink considerably, but the contraction is much less than the service sector. Thus people with the skill set applicable to the service sector will start looking for jobs in other industries. Thus as unemployment increases, there can be an increased perception about the redundancy of education. As education and professional training courses are needed for specific job roles. There will be a low rate of enrolment in the education system, particularly among the financially weak (Blundell et al., 2018).

Commented [AB3]: Why would employment fall?

Q 5. Effect on US consumption

During periods of long economic crisis, the aggregate level of consumption will decrease on account of lower disposable income and employment because of a reduction in domestic production. A long period of economic crisis is usually associated with an uncontrolled

Commented [AB4]: Consumption is a part of GDP. In the long run the GDP will fall hence, the consumption will likely fall.

inflationary period. As there is no substantial increase in the real wages, the people are left with less disposable income after accounting for the increased price. As the price of goods and services keeps increasing, people will reduce their consumption down to the most essential items only. This causes a decrease in demand which in turn decreases supply to bring the market economy back to equilibrium. As total consumption equals base consummation plus disposable income. A decrease in disposable income affects the amount of income saved after accounting for all the expenses. Thus savings are again related to consumption, as future consumption depends on past savings. The graph in fig 5 explains the relationship between supply, consumption and savings. As income increases, consumption and savings also increase. To cater to the increased demand in the market, supply also increases. In the case of a long-run economic crisis, there can be only an incremental increase in salary which may not be sufficient to offset the inflated price of products and services. Thus, people will keep their consumption expenditure limited to essentials (Loxton et al., 2020).

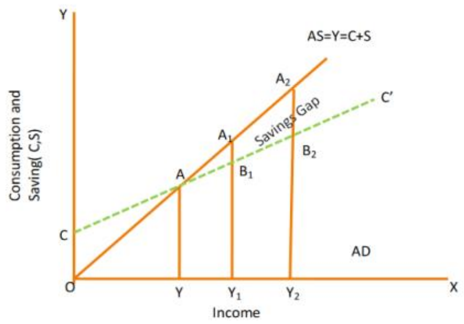

Fig5: Consumption function

Q 6. Effect on US investment

The long term effect of the financial crisis will be decreased investment by domestic and foreign investors in the USA. Business organisations that are small and medium-size will be hard hit, as these organisations depended on funding for expansion and other operations may have to wind up a significant portion of their business due to a fund crunch (Zubair et al., 2020). Due to a lack of funding, small and medium-sized firms will reduce their investments in fixed assets. Investments involve two main factors which are risk and return. During a long term financial crisis, the market remains largely volatile. This volatility increases the price fluctuation of shares. This in return increases the risk perception of investors in that particular market. Thus investors become cautious and may not indulge in venture capital funding. While assets that are prone to more fluctuation such as high yield bonds and stocks become less valuable during a long financial crisis but at the same time, assets like gold and government treasuries appreciate. As gold and government treasuries offer a safe and sure return on investment, these assets tend to appreciate during a long financial crisis.

Q 7. Effect on US Budget

The US government or federal budget consists of 3 important parts: revenues, discretionary spending, and direct spending. The collected revenues are the main source for both discretionary spending and direct spending. Long term financial crisis takes a toll on the revenue collection, thus the US government will be forced to cut down on its discretionary spending. The federal government will transfer fiscal relief packages to states and local governments. States and local governments are not constitutionally allowed to carry forwards their deficit from one year to the next year (Congressional Budget Office, 2022).

For this reason, the state and local governments will have to solely rely on funds received from the federal government and cut down on spending to increase reserves. Social services, educational spending and health that constitutes one of the major aspects of the budget allocation will witness major spending cuts by the government. The US federal government may have to resort to spending cuts for a significant number of subsequent budgets if the financial crisis goes long-term.

Q 8. Policy Suggestion

There are 2 possible ways of handling this crisis, which are expansionary and contractionary fiscal policy. The contractionary fiscal policy is applied here.

- The first step is to decrease the nominal gross domestic product, which is GDP evaluated at current market prices. To do this either the tax rate will be increased or government spending will be reduced. These measures are meant to control the supply of money in the system. Thus as tax rates are increased, private bodies have less money to invest or pay.
- The net exports will be decreased. A decrease in exports will cause a decrease in domestic production.
- The net import will be increased. If the spending by domestic consumers on foreign goods increases than domestic producers selling to foreign consumers, then the trade deficit increases. This causes the GDP to shrink.
- Another technique applied in the contractionary policy is increasing the base value of interest rates controlled by central banks. This limits the amount of money circulating in the system and brings down inflation. As inflation comes down, people slowly start spending more. This again causes the people's money circulating in the system, which is eventually taxed and reduced. As inflation comes down more, people increase spending. To match the increase in aggregate demand, manufacturers increase aggregate supply by increasing production. As the system reaches equilibrium in demand and supply, the price level decreases with a subsequent increase in the real GDP.
- Another macroeconomic variable that can be used while applying the contractionary fiscal policy is increasing bank rates. As banks increase the loan rate, private business organisations and individuals can be discouraged from taking loans. Thus an investment decreases, output consequently GDP also shrinks.

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- Controlling the inflation rate is another technique. To do this the flow of money in the system can be reduced by techniques such as increasing the lending rates by banks or lowering the prices of bonds. As price of bonds is lower, more people are enticed to buy the bond. This causes the money which is available to the people to be put in circulation in the system and then siphoned off to the government.

Q 9. Recover from output gap if an expansionary gap is present

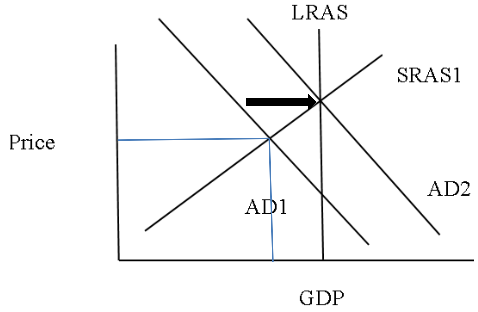

Fig 6: Gap between real GDP and actual GDP

(Source: Corporate Finance Institute, 2022)

An expansionary output gap occurs when the potential output is less than the actual output. This usually occurs when the government is already following an expansionary policy where the government has increased the spending and reduced the taxes (Stone, 2020). Thus the government is already in an expansionary phase. The government can simply follow a contractionary policy to close the gap between actual and potential output. A contractionary policy is the opposite of an expansionary policy, where government reduces its spending and raises taxes. The reduced spending and increased taxes work through the multiplier effect through which the money circulating in the system is slowly drawn back. Reduced spending will force member states and local governments in the USA to cut down on spending in areas that generate more cash flow. With less economic activity in these areas and higher taxes, people are left with less disposable income. Thus as consumption decreases, the demand decreases. With this, the producers are forced to decrease the production also by cutting down on labour. In this way the actual output of the economy is brought down to its potential out, evidently closing the gap between the two.

Q 10. Recover from output gap if a contractionary gap is present

A contractionary output gap occurs when the real GDP is less than the potential GDP at full employment. The US government can follow an expansionary policy to reduce the gap by increasing the real GDP. This includes either monetary policy or fiscal policy or both. In fiscal policy, the government can resort to increased spending on its part and cutting down on taxes, rebates and transfer payments. The government can increase discretionary spending by floating more government contracts. This increases the money supply in the system. In figure 6 above, the point where AD1(aggregate demand) and SRAS1 meeting is indicated by the blue line, which points to the real GDP. The point where LRAS (long-range aggregate supply) and AD2 (aggregate demand) meet is the potential output the US economy wants to reach. The multiplier effect and MPC (marginal propensity to consumption) work to increase spending and reduce taxes (Stone, 2020). Reduced taxes leave more disposable income in hand, leading to increased consumption and spending. As the demand increase, the long-range aggregate supply also increases. Thus as demand and supply reached equilibrium, it creates competitive wages and employment and the real wage returns to equilibrium.

Reference

Blundell, R., Joyce, R., Keiller, A.N. and Ziliak, J.P., 2018. Income inequality and the labour market in Britain and the US. Journal of Public Economics, 162, pp.48-62. [online] Available at:< https://reader.elsevier.com/reader/sd/pii/S0047272718300562?token=84B24C744B36F3290F799A319B7227E92626C713C4EB53A4977EF3A9095E36B6436773486CBD8301F1298E9ED97C5CCB&originRegion=eu-west-1&originCreation=20220429050702> [Accessed 29 April 2022].

Burkhanov, U., 2018. The Big Failure: Lehman Brothers. [online] Available at: <https://www.researchgate.net/publication/270622761_The_Big_Failure_Lehman_Brothers%27_Effects_On_Global_Markets#:~:text=The%20Lehman%20Brothers%20failure%20stressed,replaced%20private%20with%20public%20funding> [Accessed 29 April 2022].

Congressional Budget Office. 2022. The 2021 Long-Term Budget Outlook. [online] Available at: <https://www.cbo.gov/publication/57038> [Accessed 29 April 2022].

Corporate Finance Institute. 2022. Inflationary Gap. [online] Available at: <https://corporatefinanceinstitute.com/resources/knowledge/economics/inflationary-gap/> [Accessed 29 April 2022].

Federal Reserve History. 2018. The Great Recession and Its Aftermath. [online] Available at: <https://www.federalreservehistory.org/essays/great-recession-and-its-aftermath> [Accessed 29 April 2022].

Ha, J., Kose, M.A. and Ohnsorge, F. eds., 2019. Inflation in emerging and developing economies: Evolution, drivers, and policies. World Bank Publications. [online] Available at: <https://books.google.co.in/books?hl=en&lr=&id=ReqKDwAAQBAJ&oi=fnd&pg=PT13&dq=impact+of+financial+crisis+on+consumer+price+inflation&ots=fwyHCxoiQo&sig=3BOxaJXeVb2OBlNB0LHxxCLKeII&redir_esc=y#v=onepage&q=impact%20of%20financial%20crisis%20on%20consumer%20price%20inflation&f=false> [Accessed 29 April 2022].

Kouki, M., 2018. Impact of Financial Crisis on GDP Growth: The Case of Developed and Emerging Countries. [online] Available at: <https://www.researchgate.net/publication/322924617_Impact_of_Financial_Crisis_on_GDP_Growth_The_Case_of_Developed_and_Emerging_Countries> [Accessed 29 April 2022].

Loxton, M., Truskett, R., Scarf, B., Sindone, L., Baldry, G. and Zhao, Y., 2020. Consumer behaviour during crises: Preliminary research on how coronavirus has manifested consumer panic buying, herd mentality, changing discretionary spending and the role of the media in influencing behaviour. Journal of risk and financial management, 13(8), p.166. . [online] Available at: <https://www.mdpi.com/1911-8074/13/8/166> [Accessed 29 April 2022].

Shabestari, M., 2020. Banking sector foresee the financial crisis. [online] Available at: <https://www.researchgate.net/figure/A-Timeline-for-Financial-Crisis-of-2007-2008-This-figure-shows-a-timeline-of-financial_fig1_337067166> [Accessed 29 April 2022].

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Stone, C., 2020. Fiscal Stimulus Needed to Fight Recessions. [online] Available at: <https://www.cbpp.org/research/economy/fiscal-stimulus-needed-to-fight-recessions> [Accessed 29 April 2022].

Zubair, S., Kabir, R. and Huang, X., 2020. Does the financial crisis change the effect of financing on investment? Evidence from private SMEs. Journal of Business Research, 110, pp.456-463. [online] Available at:<https://reader.elsevier.com/reader/sd/pii/S0148296320300758?token=7AB6D528CF6E58B288078A0FEF128ED9C1CF9192C889B6FDAA942191D5B4567E0AE2055AB18C5F3E1C5E40F4AD8F2365&originRegion=eu-west-1&originCreation=20220429050154> [Accessed 29 April 2022].