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Flight to Quality in Cryptocurrencies

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Introduction

The topic of cryptocurrencies has been on the forefront of investors' minds as they have seen ridiculous returns from the volatile swings in price. Its value highly debated because the asset is not backed by a hard asset. If we look back at the beginning of our country, we see how each state had its own currency and the difficulties that users faced around who would accept that as legal tender. The birth of a federal currency was accepted because it served as a medium of exchange and was backed by gold through the U.S. government. The final evolution of the U.S. dollar was moving away from the gold standard to a fiat currency backed only by the confidence in the U.S. government's word. Today, we live in a globalized world where there is significant communication between countries around the globe that it seems that we have almost come to the same crossing point that our country saw when it first adopted a federal currency. For cryptocurrencies to be adopted as the standard around the world, we must first discuss why they would carry the same value as the current federal currencies that are already set in place and why there may be a shift.

The paper will be investigating the reasons that cryptocurrencies may gain popularity first as a flight to quality asset before a widespread adoption throughout business and individuals. This carries great importance as the adoption of cryptocurrencies would mark a new era of untested, autonomous free markets around the globe. We will look at current debt levels, different asset class correlations, perceived stable currencies, and if cryptocurrencies can act as an alternative asset. The current idea of flight to quality assets is moving away from more risky assets like equities or unstable currencies to fixed income or stable currencies like the USD but what if investors lose faith in some of the U.S. denominated assets?

Review of the Literature

The study we conduct relates to the idea that cryptocurrencies will be a substitute for safe assets. Safe asset demand increases drastically in a recession that is described in Keynesian economics. First, understanding the paradox of thrift in Keynesian economics, people save more money in a recession and spend more in a time of expansion. This prevents money flow in times of a recession slowing recovery and creates more unpreparedness for the next recession. This effect fuels the desire for more safe assets due to the prolonged recovery time. James Ahiakpor (1995) argues that the vague language in Keynes research does not support his analysis. If the increased spending is in money making savings i.e. bonds or in a bank, it will actually benefit the economy because there is cheap capital available for businesses to use. The paradox of thrift is only relevant in the case of cash hoarding or in commodities that are usable by others. It is when the people prefer the liquidity or the storage of value rather than the return on investment that it really becomes damaging to the economy. Although this is true, in 2008, we witness most people doing anything to preserve their wealth by pulling their money out of risky investments to put into the safest, more liquid assets i.e. USD and gold. Making a return seemed too difficult because of how quickly valuations across all asset classes declined. The demand for gold dramatically rose during the financial crisis because of its liquidity and storage of value.

In a recession, there is a universal knowledge that investors desire low risk, low return investment vehicles over those that promise higher returns for more risk. This is seen in the spike in U.S. treasury demand in the late 2000s. Caballero (2017) talks about the idea that not all safe assets are created equally. His research argues that safe assets are dependent on what the investor perceives as safe. During the housing bubble, everyone assumed that the AAA-rated mortgages were safe assets, requiring very little analysis to ensure that this was indeed true. As this financial instrument imploded on itself, investors who were desperate to find a new place to store their value ran out of safe assets to buy. This created what Caballero refers to as a safety trap. A safety trap exists when there are not enough safe assets to meet demand, artificially boosting the prices of the safe assets or to avoid suffering greater loss in riskier assets. The safety trap also contains an element of a liquidity trap as the economic recovery starts. Investors will opt to hold onto more liquid assets because they believe that they will receive a better risk-return once the economy shows clear signs of recovery and want to be ready to invest then. Liquidity traps need an increase of overall assets to free up the movement of the money supply whereas a safety trap can only be solved by an increase in safe assets or a reduction in safe asset demand. In the financial crisis seen in 2008, once AAA mortgage-backed securities were wiped away, there was a massive influx of demand for safe assets while simultaneously a large drop in the number of safe assets. Investors were forced to look for assets that they perceive as safe for the time being based on liquidity and ability to preserve value. Beber, Brandt, and Kavajecz (2009) analyzed sovereign yield spreads between the U.S. and Europe to try to explain whether investors desire credit quality or liquidity more. They found that investors desire both but at separate times. Liquidity ends up being the most defining factor of the bond market. The research reinforces that when a severe downturn occurs, normally triggered by an unusual event, investors look for liquidity over credit quality.

Sauer (2016) explores how cryptocurrencies like bitcoin might work in the money market under Keynesian economics. Sauer argues that despite the title as a currency it is more like a commodity that holds similar characteristics of the currency. It's medium of exchange and its liquidity make it the most liquid commodity that is backed by the blockchain to limit a double spending problem. This would increase the adoption rate of cryptocurrencies in a severe downturn because of its attractive liquidity value. Dwyer (2014) goes further into the actual economic theory specific to bitcoin that answers questions about the finite supply levels of the cryptocurrency and how it becomes harder to mine. Leveling off the supply should decrease the extreme volatility in cryptocurrencies. Applying the findings from the research in the literature review, we can argue that cryptocurrencies meet a hybrid of being fiat currency and commodity that could pose as an alternative asset in an economic downturn. It serves the same purpose of money with strong liquidity backed by a securitized platform. The ease of use could increase the adoption rate quickly in our society as mobile payments have become a much large part of our everyday lives.

Research Question and Hypothesis

The question to be investigated is that if there was another economic collapse in the U.S. and investors lost faith in the USD where do people put their money?

If the U.S. economy or government starts to slip in the minds of investors then there will be a frantic search for a new safe haven asset class. If investors lose faith in the U.S.' ability to manage the economic money supply, then they will search for a decentralized asset that will serve the same purpose as money will. There is already safe asset shortage in current conditions that would be exacerbated in the case of a severe decline in U.S. GDP. This will push investors to use cryptocurrencies as an alternative store of value with similar liquidity to the stock market. Part of the prediction stems from countries that are unable to recover from a globally synchronized recession that will be force the country to do away with its current currency. It would revert back to a system of bartering because the value of money suffers from extreme value fluctuation. This bartering is handled by an adoption of cryptocurrency through its ease of access. The adoption of cryptocurrencies is the logical progression as we see cracks form in the U.S. economy form putting pressure on the shortage of safe assets in the world.

Will This be an Acceptable Substitute for Today's Legal Tender?

Before looking at scenarios that may cause people to move into the cryptocurrency asset class, we must first make sure that it is able to serve the same purposes as currency does today. Money serves three purposes. It used as a medium of exchange, store of value, and a unit of account. Cryptocurrencies can be given from one person to another through blockchain. Cryptocurrencies are encrypted with complex formulas to prevent people from replicating or stealing the currency from someone else. Every transaction is kept on a public ledger to ensure that the currency was given to the right people and not sent to someone else. Cryptocurrencies can be used as a store of value even though there is nothing backing it. If we look at currency today it is all fiat money. Paper money carries no more value than the paper that it is on unless there is a network of people that are willing to use it in a transaction of goods and services. This will be the same case for cryptocurrencies, as long as people are willing to give a product or service for it, then it proves that there is value. As more people believe that cryptocurrencies have value, its user base will grow which in turn provides more proof of value. Finally, cryptocurrencies are denominated in any number ranging from 0 to the total number of coins available. This gives a unit of account to understand how much each product or service is worth. Now that it is established that cryptocurrencies can fulfill the three main purposes of currency then why haven't we already moved to adopt it? The main deterrent is that cryptocurrencies are not regulated by any governing body to control the value of the actual currency which remains untested. Untested financial instruments come with enormous risk. However, this paper focuses on the adoption of cryptocurrency as a flight to quality because it is most likely to gain real traction as an alternative liquid, storage of value.

There are currently several types of issues in the world today where we see people fleeing one asset class to another perceived as a safer alternative. It is common knowledge that within an economy stock ownership carries more risk than bond ownership. What matters more in the discussion of flight to quality is the underlying economic principles. Today, most of the world's GDP comes from the developed nations' products and services being supported by undeveloped nations reliance on manual labor and commodities. The undeveloped countries have had issues with their economy due to relentless inflation, deflation, and political unrest. Reminding ourselves that safe assets are defined by the investors, the Knightian uncertainty around the political imbalances and heavy reliance on specific commodities create a consensus among investors that all undeveloped nations' asset classes are viewed as high risk. This causes an inflow of funds into safer economies such as the U.S.

America's Budgeting Problems

Today we hear about the extreme leverage that countries have taken on to get their economies back on track from past recessions and the U.S. is no exception. The St. Louis Federal Reserve reports that the U.S. debt level to GDP percentage rate has recently hit 103% near the end of 2017 significantly higher than the debt levels that they were prior to 2008 that were in the low 60s (Figure 1). The increase in debt load leads to higher interest payments to other countries every year. To make matters worse, the government continues to spend more than ever before on programs like the military without any major conflict occurring. Healthcare costs continue to rise putting more of a drag on the government spending. According to Statista, the U.S. is the 11th most levered country with Japan and Greece leading the way. New tax reform cuts the corporate and income tax rate significantly reducing the government's revenue to work on paying down the overall debt. With the continued spending, there is no end in sight as to how much the U.S. feels comfortable with increasing its debt levels. Where is the tipping point where investors will start to question the debt levels and be concerned about where future financing will come from? Economic recovery is in full swing where the government should be working to decrease the deficit to make room for a potential borrowing needs in the future. If the economy does slow down into a recession, the government will be forced to increase their spending, even more, the federal reserve will drop rates and print more money (Figure 2). In this case, this will devalue the currency because the investor will not be realizing the same yield as they were before allowing the opportunity to flow into other securities or other currencies. The growing debt load concerns are now being mixed with the increasing amount of net imports of goods and services. The U.S. has been operating as a net importer year over year since 1982. More and more of U.S. dollars are being controlled by other nations that the U.S. must keep increasing the money supply to support our economy.

In the case that another recession is triggered, it would be difficult for the federal reserve to stimulate the economy because they do not have a lot of room to drop interest rates before hitting 0%. Today, consumer sentiment levels are back to their pre-crisis level highs and the savings rate are near historical lows (Figure 3). This puts everyday citizens at risk as they are unprepared for another recession which would exacerbate the lack of economic growth. When asset classes lose value and rates drop, the investor is not making any money on their investment. They will shift their focus to assets that provide a storage of value and liquidity to protect against depreciating assets. Referring to Keynesian's principal that people save more when times are tough, we would expect to see a rotation into asset classes like the USD, bonds, and gold. In a time of recession, asset classes become more closely correlated (Figure 4). When asset classes have stronger correlations, flows into funds become more crowded as investors tend to move together. When demand for these assets rise quickly it causes a stretch in valuation which is why there is a spike in the price of the USD in 2009 (Figure 5). The stretch in valuations for safe assets can provide an opportunity for investors to rotate into cryptocurrencies to avoid a safety trap and overpaying for assets. The rotation to cryptocurrency is now a form of flight to quality where the increase in liquidity provides stabilized value. The flight to quality towards a cryptocurrency can be tempting to investors due to decentralization aspect if they start to lose faith in government's ability to handle debts and manipulate the money supply.

Cryptocurrencies Globally

The USD increases in value during a global recession because of an influx of money from abroad. Other nations' economies that more closely tied to commodities like emerging and frontier markets will be even more adversely affected by the global slowdown of GDP. This may cause extremes in monetary policy fluctuation that force these other nations to adopt a cryptocurrency. We have seen countries like Zimbabwe experience extreme hyperinflation that forced them to legalize foreign currencies as legal tender to redenominate the money supply. These countries that need to reset their currency may move towards adopting a cryptocurrency instead. Globalized trade would then force other nations to adopt the new form of cryptocurrency in order to obtain the county's goods and services. Because the country is tied to the commodity it produces, the cryptocurrency may act as a derivative of that nation and that commodity. For example, Venezuela is experiencing dangerous levels of stagflation with extreme inflationary pressure preventing them from lowering their interest rates to spark economic growth. Political corruption has caused a lack of faith in their government's ability to provide stabilization for the country. This could be a country that soon must adopt a cryptocurrency to in order to reset their currency from inflating at the current rate. The cryptocurrency would also allow for a decentralized money market to control instead of a corrupt government that would act as a form of bartering to protect citizens.

Conclusion

There are multiple aspects of the U.S. government that are showing cracks in what seems to be strong economic times. Extreme debt levels paired with stretched asset valuations due to low rates and little savings put into question the faith that there should that the USD as the safe haven currency. People's uncertainty in the use of cryptocurrencies has created a slow adoption rate but will become more liquid as investors find there is value in cryptocurrencies during recessions. Although the likelihood of most people losing faith in the USD is slim, finding an alternative way to store value in times of stress might prove to be very useful in avoiding a safety trap. Adoption could stem from another country who needs to reset their currency and is tied to a commodity that will regulate the way that cryptocurrencies are accepted by businesses. People will feel comfortable knowing that cryptocurrencies are derivative of a commodity backed nation. This will provide for a stable transition as global trade forces others to use certain cryptocurrencies verifying its value. Cryptocurrencies have proven that they can be a viable option as an alternate currency, yet the economic outcome of autonomously managed monetary policy is unknown.

Appendix

Figure 1. U.S. Debt to GDP

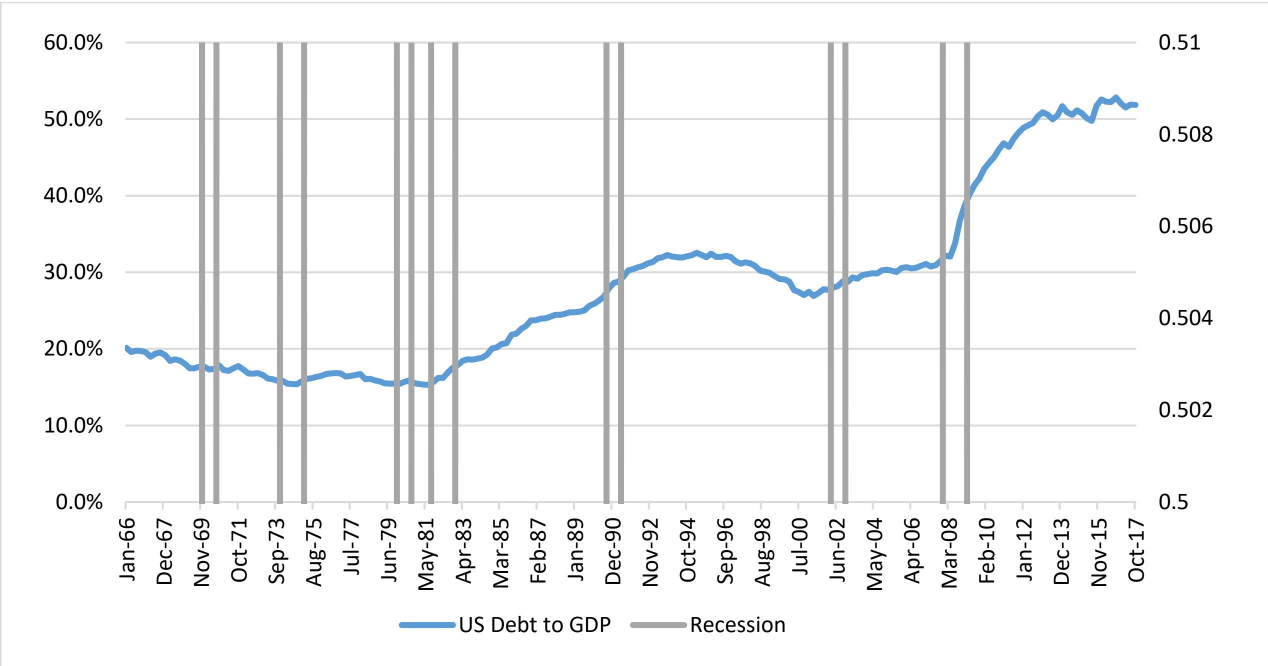


Figure 2. Government Spending Change as a Percent

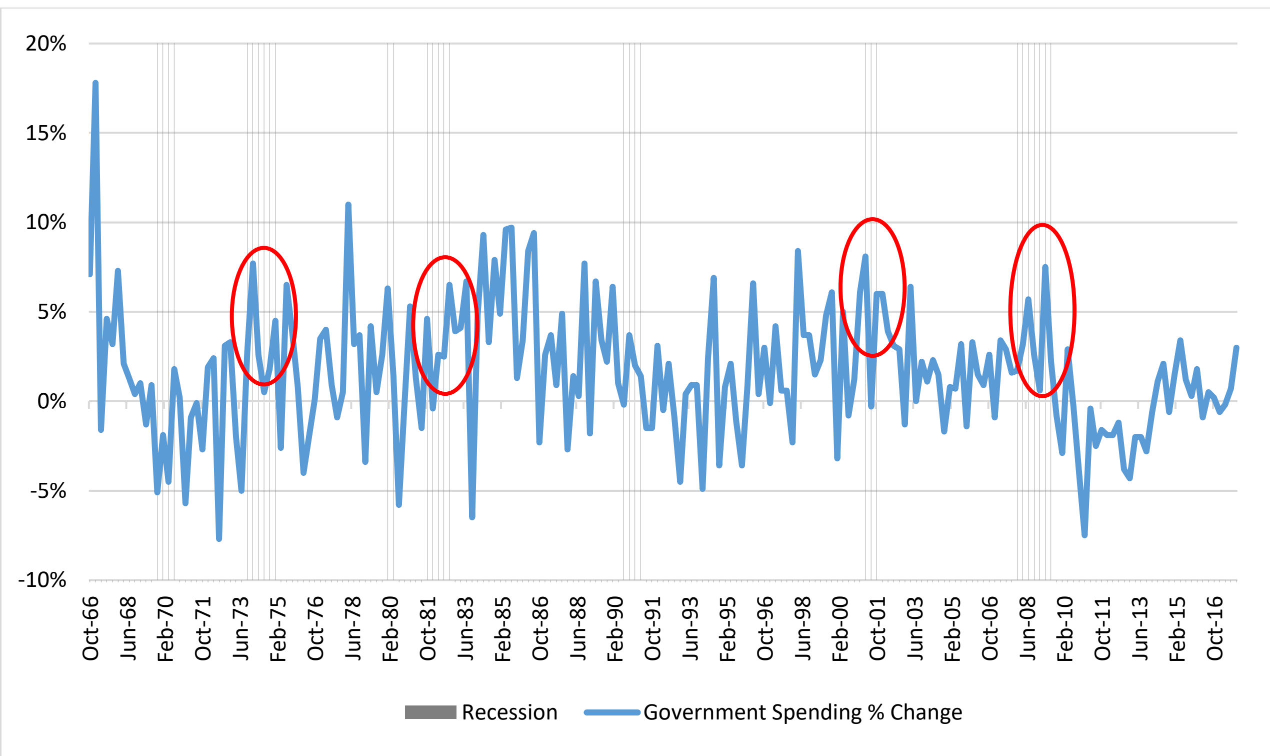


Figure 3. U.S. Savings Rate

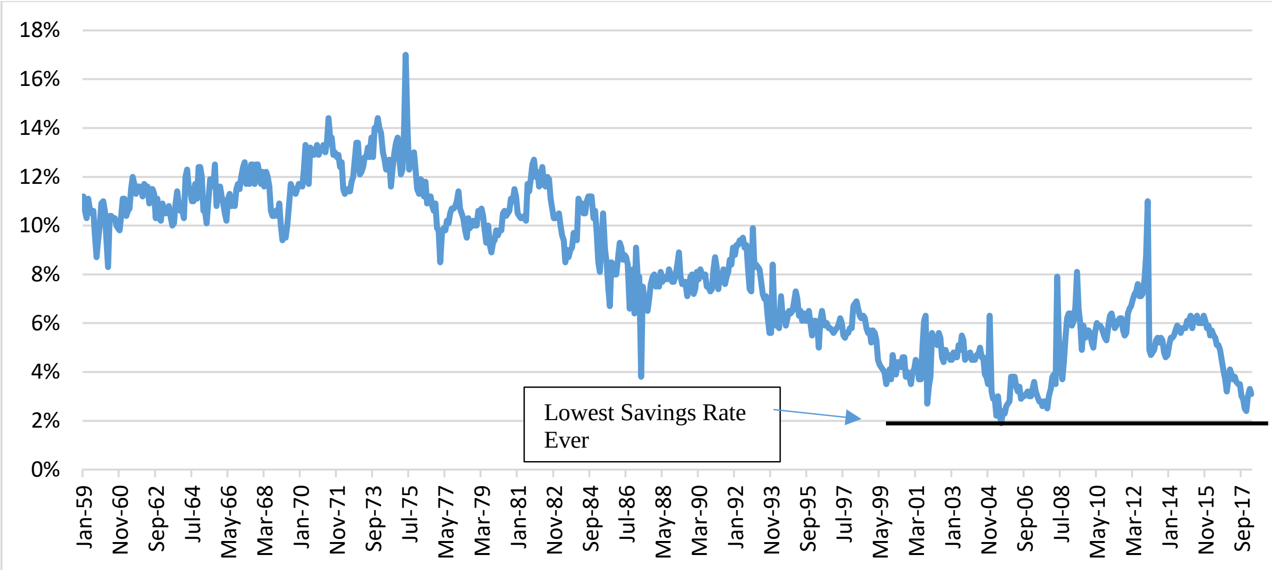


Figure 4. Correlation Tables from 2004-2007 (Economic Expansion) and 2007-2010 (Economic Contraction)

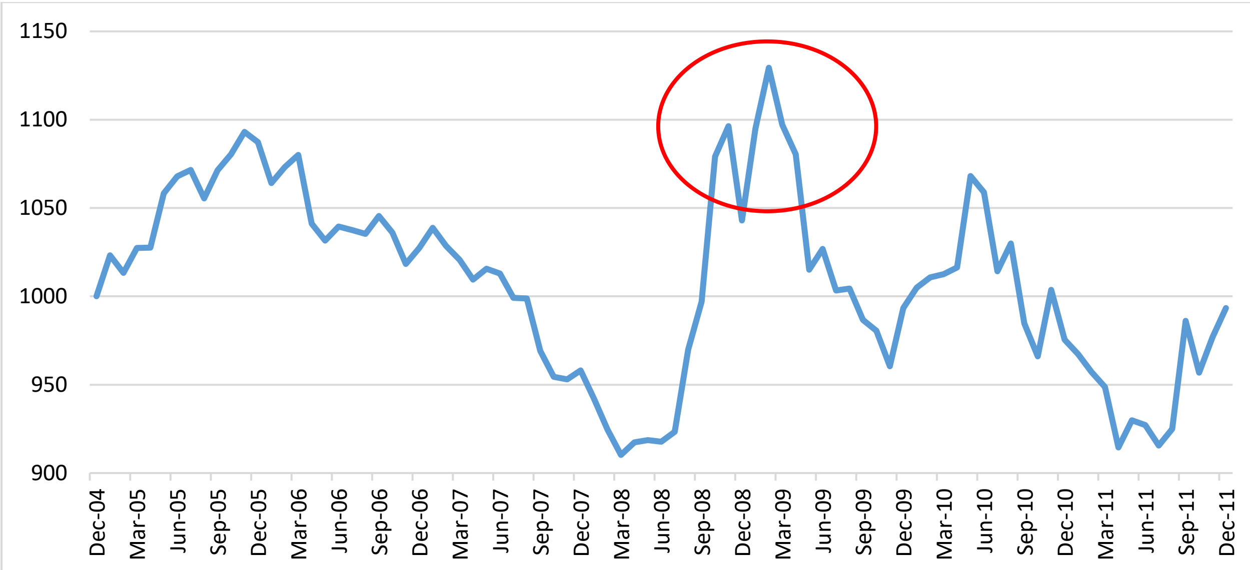
2004-2007 Correlation

	SPX	TLT	Gold	EMEA	Euro/USD	Yen/USD
SPX	1.000	-0.147	0.023	0.265	-0.003	0.027
TLT	-0.147	1.000	-0.011	-0.077	-0.094	-0.015
Gold	0.023	-0.011	1.000	0.346	0.494	-0.416
EMEA	0.265	-0.077	0.346	1.000	0.355	-0.324
Euro/USD	-0.003	-0.094	0.494	0.355	1.000	-0.584
Yen/USD	0.027	-0.015	-0.416	-0.324	-0.584	1.000

2007-2010 Correlation

	SPX	TLT	Gold	EMEA	Euro/USD	Yen/USD
SPX	1.000	-0.343	0.124	-0.062	0.098	-0.088
TLT	-0.343	1.000	0.000	0.103	0.004	-0.079
Gold	0.124	0.000	1.000	0.142	-0.015	-0.225
EMEA	-0.062	0.103	0.142	1.000	0.480	0.136
Euro/USD	0.098	0.004	-0.015	0.480	1.000	-0.084
Yen/USD	-0.088	-0.079	-0.225	0.136	-0.084	1.000

Figure 5. Dollar Spot Index



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