China’s debt is a global problem

Ryan Grills

2019

Bachelor of Commerce Best Business Research Papers

UVic Libraries ePublishing Services

© 2019 Grills.

Original citation:

Grills, R. (2019). China’s debt is a global problem. *Bachelor of Commerce Best Business Research Papers*, *12*, 18–33.

Downloaded from UVicSpace Research & Learning Repository

dspace.library.uvic.ca

University of Victoria | Libraries

China's Debt is a Global Problem

Ryan Grills

ABSTRACT

China's presence as the catalyst for global growth has caused credit levels to rise sharply, causing government officials and institutional investors to take notice. China has been able to sustain their current level of debt, because of their high savings rate, strong growth rate, account surplus and low external debt, but those features are now weakening. As their growth rate slows, the existence of high levels of moral hazard has become increasingly evident. Large surplus of capital and the mentality that the central government will always cover the debt of local governments and state-owned enterprises, has led to rushed due diligence and investment in assets with little to no potential for returns. This paper starts by providing a background on how China became a highly leveraged nation, an overview of China's credit developments and outlines their current credit size and structure. The research focuses on the debt taken on by the non-financial sector, and identifies key vulnerabilities in the economy and potential for systemic risk. This is followed by what the research findings means for the global market and recognizes key markets at risk. This paper concludes by making policy recommendations that will help increase China's credit sustainability and assist in their transition from a phase of rapid growth to a stage of high-quality development.

PROBLEM

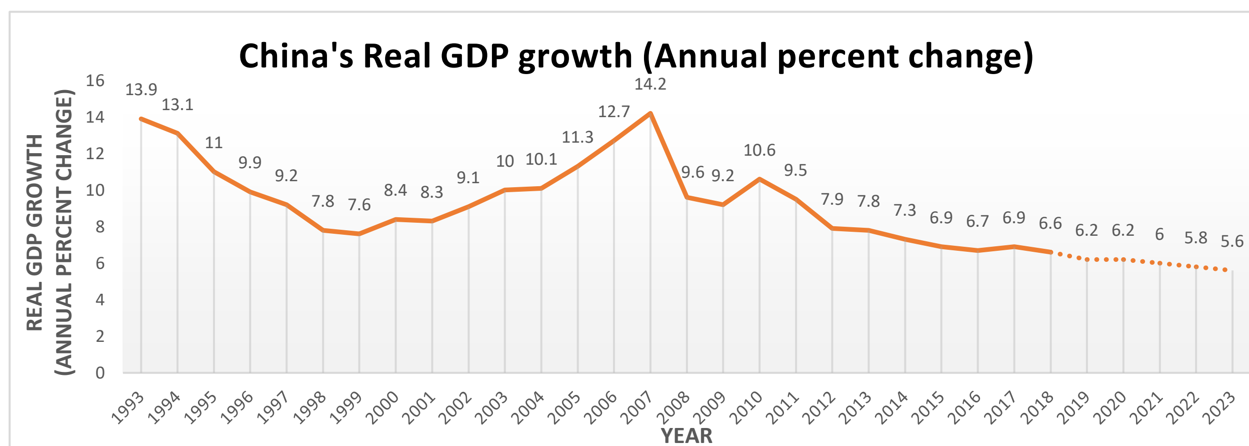
Over the last decade, China's emergence in the global market has been nothing short of impressive. They have had a continuous period of strong growth and are shifting their economy from one that is centrally planned, to one that is market based. According to the World Bank, China has been the largest contributor to global growth since the global financial crisis in 2008. ("World Bank in China" 2018). Among all of their successes over the past decade, there remains a great concern that has global leaders and institutional investors taking notice. In order to grow their economy and raise their population out of poverty they have had to take on a lot of debt in a very short period of time. There are considerable concerns about whether China's rising leverage is sustainable and the situation does not appear to be getting better. When a country undergoes rapid credit expansion, it is often associated with rushed investment decisions, cutting corners on their due diligence and an easing on their lending standards. This suggests that lending would be provided to less credit-worthy borrowers or towards assets with a poor return on investment, which adds significant stress to their financial system.

China is able to take on more debt than most other emerging markets, because of their size and established cushions to withstand higher credit. Those cushions included a strong growth rate, account surplus and low external debt. China's borrowing strategies have been offset by a growing economy, as the rise in GDP exceeds the interest payments. They are essentially betting on the growth rate of their economy to cover their leverages when they become due and it has been paying off. Concerns have been rising because the growth rate of their GDP is now slowing and we are seeing their strategy becoming obsolete, as lending grows faster than the economy. In 2007 China had a peak annual percentage change in real GDP growth of 14.2% and has steadily declined to a projected percent change of 6.6% in 2018. Looking at Figure 1, we can see that this percentage change in growth is expected to decrease to 5.6% by 2023. For the first time since China joined the World Trade Organisation in 2001, they had a current-account deficit in the first quarter of 2018. ("China's vanished account-surplus" 2018). China's once low

external debt is also on the rise, increasing by over 400% since 2008. (China Gross External Debt, 2018) The unique features of China's economy are weakening but it is unclear just how vulnerable they are.

As China's economic growth continues to slow, and an intense trade war with the US has no signs of going away anytime soon, it becomes very import for them to create a clear and direct plan to approach their debt situation. Their policy makers are aware of their current economic situation but it is important that they take the warning signs seriously. Their government has been dedicated to the optics of an economy that is invincible to economic shocks but continuing this approach would be very naïve on their part. The first step will be to get a better understanding on how large the debt implications are, before any predictions or recommendations can be made. China must impose the correct fiscal policies to unravel their debt load, without becoming a drag on the global economy or starting the next global financial crisis. This is not a problem that lies solely within their borders, governments around the world and international investors will watch closely to how this issue is addressed.

Figure 1: China's real GDP growth rate



(IMF DataMapper: China real GDP growth, n.d.)

BACKGROUND

The Beginning of the Debt

High levels of debt is a relatively new phenomena for China. Prior to 1980, China's policies were focused on self-reliance and they had virtually no external debt. They were very restrictive when it came to external borrowing. An era called the "golden development phase" began in the 80s and even during this time debt was never a great concern. This was because almost every year GDP growth was higher then the increase in debt. In 1997, they were faced with the Asian Financial Crisis, when approximately 40% of the loans held by the Chinese banks defaulted or were close to default. (Ma, Fung, 2002) Asset management companies were established to buy the bad debt in return for equity stakes. This crisis was relatively easy to handle because they were going through a period of fast economic growth. Up until 2008, debt and GDP growth grew together and when one fluctuated so did the other.

China's buildup of debt began in 2008, with a large stimulus package of $586 billion over two years or 13.4% of their GDP. The package was financed by three separate sources, $173 billion came from central government spending, $180 billion came from local governments and bank lending made up the remaining $233 billion. (INFRA Update, 2010) This package was established in order escape the financial hardships felt by the global economy in financial crisis of 2008. During a time when the advanced economies saw negative GDP growth, China was able to keep their growth rate at a strong 9.2%. ("Real GDP Growth" 2018). Over one third of the funds of the package was to be allocated to investment in infrastructure, in the form of mega projects. Beijing ordered local governments to build roads, bridges and other infrastructure to keep the economy pumping and workers in jobs, at a time when

many economies were grinding to a halt. In return for assuming the lead on road, railway and other infrastructure projects, they were granted lucrative credit and loose oversight. This created a large influx of capital for the local government and state owned enterprises but created a mentality of poor fiscal responsibility.

China's Credit Developments

China's rapid outbound investment and rising indebtedness have created vulnerabilities in key sectors of their economy. To narrow the scope of the research, this paper will focus on the debt taken on by the non-financial sector. This is debt held by its real economy, which consists of households, government agencies, non-profit organisations, or any corporation that is not in the financial sector. Credit to the non-financial sector through banks, non-bank financial institutions and the debt securities market are considered. To fully understand China's public finance and fiscal policies, it is important to understand the role of local governments as an integral piece to China's large scale regional infrastructure projects and are tasked with the provision of social services. They account for half of general government revenue and over 80% of general government expenditure. (Lam & Wang, September 2018) This shows a lack of return on investment and structural revenue shortfalls relative to their spending needs.

China varies from western nations in the sense that they have what they call a "socialist market economy". They have approximately 150,000 state owned enterprises, with a third of them being owned by the central government and the remaining are owned by the local governments. These companies have a significant presence in the economy and account for approximately 30 to 40 percent of GDP and 20 percent of total Chinese employment. ("China - 7-State Owned Enterprises" 2017). They are considered to have an upper hand over private companies because they receive favoured access to China's assets and see policies created in favour of their long-term success. These companies limit foreign direct investment because of the belief that they would not be entering a market where all stakeholders are treated equal.

In December of 2016, the Chinese Government released their 2017 priorities for their economy and deleveraging was one of them. It had become clear to senior officials that the economy had structural problems and an effort needed to be made before things got even worse. Despite this public commitment to deleveraging their debt, in 2017 Chinas debt to the non-financial increased by approximately 19% (Total credit to the non-financial sector, n.d.). The priorities for 2018 were focused on resolving risks, and promoting high quality development. Resolving risks would be through supply side structural reform and other government reform to solve their structural problems. High quality development was deemed to be the "indispensable foundation for sustainable and healthy economic development". ("China's leaders" 2017) This is not just about becoming a more innovation driven economy but also reducing inequality, improving social services and education. It is unclear if these strategies will build off the 2017 strategy of deleveraging or lesson its importance as long as it leads to high quality development.

The debt that is known to exist is raising concern, but the unknown debt could pose an even larger issue. Before the correct policy changes can be established, it is necessary to check how much debt is currently being held off of the budget. Hidden debt held by Chinese local governments has rapidly increased in recent years and could now be worth as much as $5.8 trillion USD, according to the S&P Global Ratings. (Lam, 2018) To better understand how much hidden debt is currently out there, an audit was commissioned by the central government and the results should be made known in 2019. The audit will cover hidden debt from state-owned enterprises, public and private investment schemes and local government. This is not the first audit to uncover hidden debt, in 2014, an audit was performed on the local government's finances and 15.7 trillion yuan worth of hidden debt was uncovered. (Watts, 2018)

The Size and Composition of China's Debt

China's credit to the nonfinancial sector as of the first quarter of 2018 was $35.11 trillion USD. (Total credit to the non-financial sector, n.d.) As a percentage of GDP it has increased from 141% in 2008 to 256% in mid-2017. China's debt-to GDP is not vastly different then Canada's but the first factor that sets them apart is how fast the debt has

been accumulated. Over the past five years, China's debt-to-GDP ratio has increased by 54% (Fielding, Jimenez, Orlik, & Wan, 2018), and over that same time Canada's debt-to-GDP ratio has risen approximately 6%. ("Canada: National debt" 2018) In previous cases, countries who have taken on debt at a very fast rate it have rarely been able to sustain it. An IMF report on China's credit boom identified 43 credit booms when debt-to-GDP increased by over 30% over a period of five years. Of those 43 cases, only five of them did not end with large decreases in economic growth or financial crisis. (Chen & Kang, 2018) Credit expansion the size and speed of China's have surpassed what would be considered "safe" levels. In 2010, before China's debt had reached the levels we see today, a journal article in the IMF Economic Review made the argument that "credit growth is a powerful predictor of financial crises". (Orda, Schulkarick, Taylor, 2011) We have seen evidence of this in the past, the most relevant case being the 1991 Japanese financial crisis. The IMF supported this argument, "China's credit boom is one of the largest and longest in history. Historical precedents of 'safe' credit booms of such magnitude and speed are few and far from comforting". (Chen & Kang, 2018) When a governments borrowing is not accompanied by enough revenue generation and economic growth, then we see an increased pressure to restructure or reduce their debt.

The next factor that separates them from the world's top economies is China's GDP per capita, which is only a third of Canada's and a quarter of the U.S's. (Fielding, Jimenez, Orlik, & Wan, 2018) Looking at figure 2, representing the debt vs income of the G-20 countries, we can see that China is an outlier amongst the other nations. Their debt-to-GDP would be less of a concern if their GDP per capita was on par with those of the advanced economies. Figure 3 shows us that China is considerably below the GDP per capita of the advanced economies and has only just reached the world average. This gage on the wealth of a countries population is one of the key reasons why China is still considered a developing economy. High income economies are able to withstand higher leverage owing because of their stronger repayment capacity. It is clear that their population is not set up to withstand a financial downturn without significant help from the government in the form of social services. China's low GDP per capita will make their current debt more challenging to pay off, when compared to the more developed nations they are trying to compete with on the global stage.

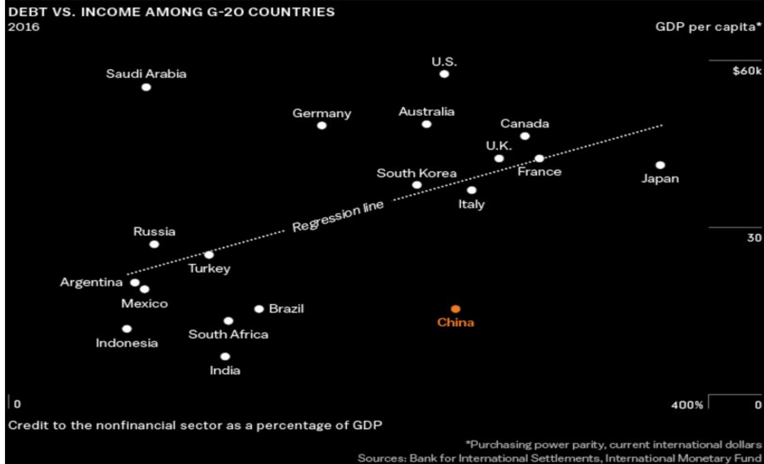
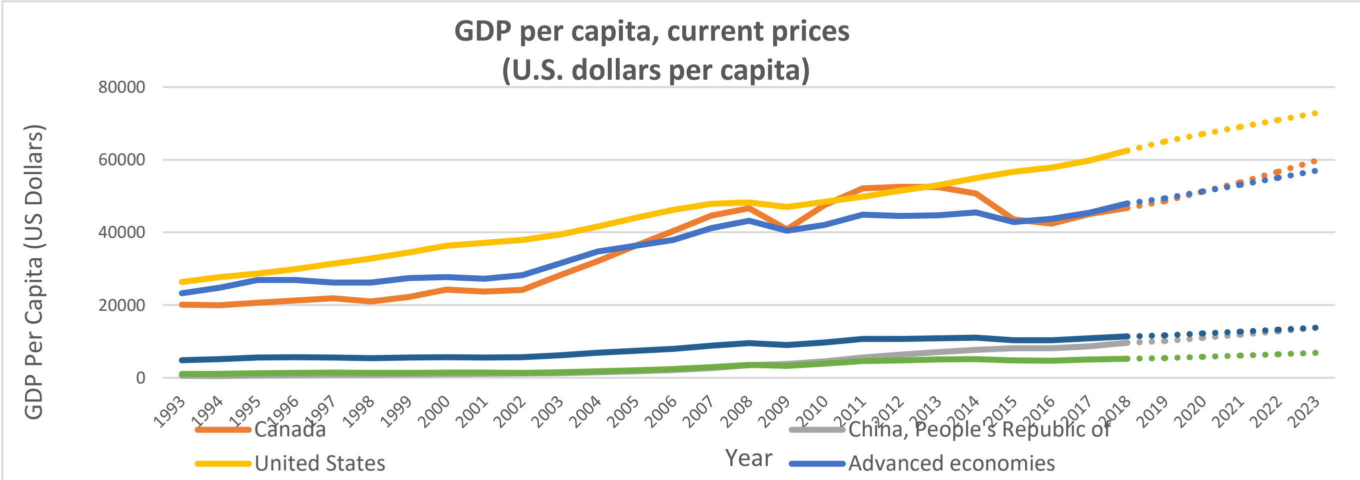


Figure 2: Nonfinancial sector credit vs income of G-20 countries
(Fielding, Jimenez, Orlik, & Wan, 2018)

Figure 3: GDP per capita comparisons for China



(IMF DataMapper: GDP per capita, n.d.)

China's non-financial corporate debt is unique in that 60% of the total liability is held by state-owned enterprise, which accounted for 115% of GDP in 2016. (Li, 2017) When a state-owned enterprise issues a bond it is considered a corporate bond but since they are owned by the central and local governments this is just hidden government debt. This changes the label of the debt but does not reduce the contagion risk. They have encouraged these companies to borrow large amounts of funds and use them towards large investments, in an effort to continue the growth of the economy. The problem is during the borrowing binge these state-owned enterprises invested in inefficient assets, with minimal return on investment. There is a strong presence of moral hazard within these firms because of the mentality they will be a continued influx of capital from the government and they will not incur the burden of failed investments. They are incurring debt that will be later paid off by the government. This is will be discussed in greater detail later in the report.

The Belt and Road Initiative adopted in 2017 is a prime example of a debt intensive plan to increase the Chinese footprint on the global stage. The envisioned plan is to invest as much as $8 trillion over 68 different countries in the form of infrastructure projects. (Hurley, Morris, Portelance, 2018) The transparency around reporting on BRI is limited but some of the most discussed projects include; rail connections from China to London, the largest port in Sri Lanka and the China-Pakistan Economic Corridor, The financing will come from China's policy banks, which are the China Development Bank, the Export-Import Bank of China and the Agricultural Development Bank of China. The idea is for these projects to assist with shared global growth, while at the same time aligning with China's key economic, foreign policy and security objectives.

RESEARCH METHODS

This research found in this report consists of both primary and secondary data. The primary data came from discussions with Dr. Michael C S Wong, who is an Associate Professor of Finance at the City University of Hong Kong. This was an opportunity to find out key information from someone who has focused their research on the Asia-Pacific Market. The questions focused on China's the effects of changing monitory policy, key vulnerabilities in their economy and exposure to external shocks. The first question asked was if China's high debt levels will make it more difficult for them to recover from the next financial crisis as quickly as they were able to in 2008? Next we discussed how China's growth momentum will be effected by local governments being forced to implement financial consolidation to control their debt size, which will unavoidably trim their investment in infrastructure. These were the key talking points discussed in this report and the rest of the interview was to gain a better understanding on China's debt composition and history.

There is considerable research performed on this topic because the importance it has on the global economy. The research focused on complying that data into an informative report on the current status of this issue and to provide recommendations for the Chinese policy makers. The secondary data in this report came from a collection of agencies reports, financial articles and academic journal articles. The agencies reports came largely from the World Trade Organisation, International Monetary Federation and the World Bank. These three sources play a vital role in the global economy and have a large composition of relevant data on this topic. The research focused on news articles from the most respected and reliable financial from media outlets. Those outlets included Bloomberg, the Economist, the Financial Times, the Business Insider and the South China Morning Post. The library databases of the University of Victoria and the City University of Hong Kong were used as the sources for journal articles. This provided access to similar studies, to understand areas that have not been studied as thorough. Since this situation is continuously changing, the journal articles showed how things have changed year to year and what recommendations did not work as expected.

RESEARCH FINDINGS

Key Vulnerabilities

Reducing the debt size held by local government, while still maintaining China's growth momentum will take decisive policy action. It is important that they are able to balance the promotion of reasonable economic growth, with fiscal reform that may erode economic performance in the short-term. If the Chinese central government force the local governments to implement financial consolidation to control their debt, they will undoubtedly trim their investment in infrastructure which has been a key factor in China's growth. Dr. Wong discussed their reliance on state-owned enterprises to support the local economy. The companies have benefited through the infrastructure projects and their debt repayments rely on continued revenue. China will challenged with keeping its people busy and employed, during slow growth or a decline in exports. In order to safely shrink the debt held by local governments, it is imperative that China reduces their reliance on fiscal injections in the form of infrastructure in order to ensure it is no longer the main catalyst for economic growth. How this is done will be very important in order to prevent companies from defaulting on their loans and citizens losing their jobs.

China must focus on shifting their economy away from domestic consumption, and become less reliant on debt-intensive heavy industry and exports. The central government is trying to shift the focus of the economy to high quality development. According to Dr. Wong, China has set up new private equity funds to develop technologies, in an effort to add new live in the economy. These funds are part of the "Made in China 2025" policy, which looks to shift their dependence on low cost manufacturing, to technology fueled growth and high end products. The policy outlines ten priority industries, which include aerospace and aviation equipment, new information technology, and energy savings and new energy vehicles. (Pham, 2018) According to the South Centre, companies that focus on the labour intensive textile industry tend to have higher debt and are more likely to have non-performing loans. Their report states that "firms in the traditional sectors like mining, textiles, construction, real estate, public administration etc. borrowed the most, accounting for 64% of total loans in recent years." (Li, 2017) China's debt instability is a result of their dependence on these industries.

Of the 68 countries who are part of the Belt and Road initiative 20 of them had no higher then a B rating by the three primary rating agencies, S&P, Moody and Fitch Ratings. The Center for Global Development found that eight of those countries are at a high risk of debt distress due to further BRI-related financing. (Hurley, Morris, Portelance, 2018) Among that list is Pakistan who has been at the center of the initiative, with an estimated $62 billion in planned projects. These projects require a large amount of debt for relatively young and developing economies to take on. In July 2017, China agreed to a debt-for-equity swap and a 99 year management contract for the Hambantota Port in Sri Lanka, after they were unable to service their $8 billion loan. (Fernholz, 2018) There are only so many projects China would be able to withstand doing these kind of swaps before the lack of repayment becomes a problem. If these countries or others were to default on their Chinese backed loans, then this will add further stress to the Chinese market.

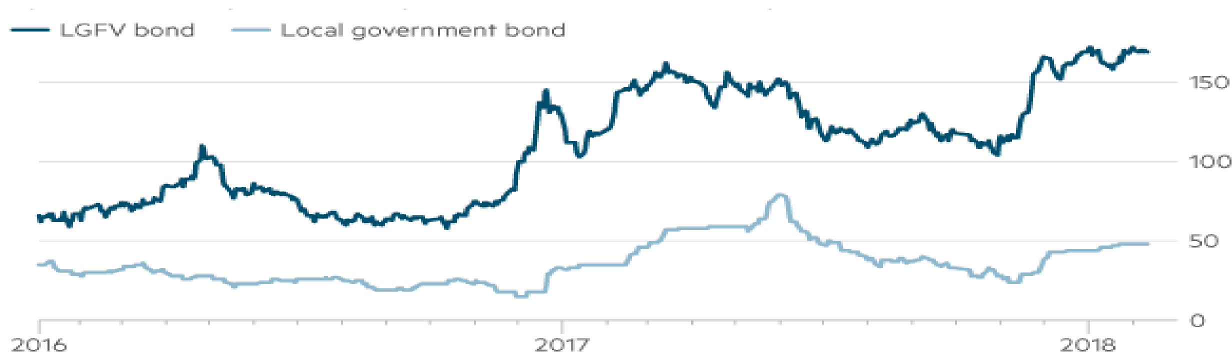
Systemic Risks

China's economic system is one that critics argue is broken because of the outlooks held by policy makers and government officials. The Western world's overall sentiment towards the Chinese economy is pessimistic because of the rising debt-to-GDP and their vulnerability to strong adverse shocks. The IMF has stated that China's credit growth is on a dangerous trajectory, and if they are to continue on this path there is increasing risk of "a disruptive adjustment and/or a marked growth slowdown". (Chen & Kang, 2018) The systemic risks arise from unsustainable policies that have created a broken attitude amongst government officials. Yin Zhongqing, the deputy director of the financial and economic affairs committee at the National People's Congress has warned that, "local government officials never worry about repaying debts, they only worry that no one is lending them money". This shows a system with significant moral hazard and is based on limitless lending, with no repercussions for poor management of funds or minimal return on investment. He continued by saying "all local governments are part of a centralized

authority that will eventually be bailed out" (Tang 2017), which emphasises their lack of financial constraint. It is clear the system as a whole is broken and the mentality of the policy makers needs to change to a more economical outlook.

Another warning sign is the number of defaulted publicly issued bond repayments so far in 2018. Up until October, there has been 48.4 billion yuan worth of missed bond repayments. This is significantly higher than the 17.7 billion seen in all of 2017. (Lam E. , 2018) Although this is still a small percentage of the overall non-financial corporate bond market but this recent uptick is an area of concern. As state-owned enterprises see less access to funding through China's commitment to tightening their local government spending, these companies will get squeezed. An economy with less emphasise on infrastructure projects will cause concern for companies in the construction, engineering and other related industries. Looking at figure 4, we can see that the distance between the bond yields of local government financial vehicles and local government bonds issued by the central government is growing. This shows that investors no longer believe they have the full backing of the local governments.

Figure 4: Spread over China's 5-year Ministry of Finance Bond



("As local Chinese governments come clean on debt" 2018)

In 2017 one of the largest rating agencies, S&P global ratings lowered China's sovereign credit rating from an AA- to A+ and stated risks from soaring debt as the reason. An A rating still considers a strong potential to meet its current financial commitments but it differs from the higher-rated categories in that they are "somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions". (Standard & Poor's Ratings, 2011) At the same time the lowered the credit ratings of HSBC China, Hang Seng China and DBS China Ltd because of their considerable exposure in China and the unlikeliness that they would be able to avoid their own default if China was to enter a debt crisis. ("S&P Cuts China's Credit Rating" 2017) Currently China's sovereign credit rating ranks 50th amongst S&P's global ratings, showing they have a long way to go before they are considered to be a stable economy among the top nations. (Cullinan, 2018) This shows that institutional investors have taken notice regarding the systemic risk that lies within the Chinese market.

Implications of These Results

It is no longer feasible for China to grow out of their debt problem as they have done in the past. The debt has grown too large and the growth rate of the once roaring economy has slowed to more reasonable levels. The old model of fueling the economy through credit expansion needs to be developed into investment into assets and industries with greater returns on investment to promote a sustainable level of growth. The implications of drastically low economic growth would be felt throughout their population. China does not have a good social security system in place for economic downturns, which could be disastrous for a large portion of their population. Drastically low economic growth would also reduce the confidence in the economy and lead to outflow of capital, further weakening the financial stability of the country.

WHY WORRY ABOUT CHINA'S DEBT PROBLEMS?

Global Market Implications

A China Debt problem would have a significant affect on the global market because of the importance they have had on global growth over the past decade. As mentioned previously China is the largest single contributor to global growth over the past decade. They are the world's largest exporter and the second largest importer. The United States, Japan and Germany are other notable global market drivers and they are among China's top five trading partners. ("China exports, imports" n.d.) Countries dependent on commodity exports such as Canada, Australia, Brazil and Indonesia would see their own GDP's impacted as demand for their exports slows. If China's credit bubble were to burst then the renminbi (official currency of the People's Republic of China) would depreciated sharply in response, as the government issues more currency to keep the economy solvent. This will cause a deflationary impact on the world and lead to a decline in China's share of global GDP.

China has established themselves as one of the largest lenders to fuel global growth and that could be drastically reduced given any significant economic downturns. A debt crisis in China would be the end to the Belt and Road initiative, which would be a big loss for emerging markets looking for assistance in growing their economies. China's presence as one of the largest donors to the World Bank would no longer be possible, putting greater pressure on the advanced economies to cover the difference. Removing China as global financer could have contagion effects on the global market and lead to further economic crisis's in emerging markets.

Key Markets at Risk

Those countries who rely on China for trade and financial support would be hardest hit by a financial crisis in China. As a nation they would look inward and reduce their demand for foreign commodities. The top five countries they import from are; Korea, Japan, United States, Germany and Australia. ("China exports, imports" n.d.) These nations are vulnerable to an economic slowdown in China, as well as the realignment of their economy. Exports to China accounted for 24.8% of South Korea's exports in 2017, with semiconductors being the main products. According to the Korean International Trade Association, full-blown trade war between China and the U.S would lead to a 6.4% drop in their exports, a loss of $36.7 billion. (Lee, 2018) This shows their reliance on the China market, and exposure to a China financial crisis. China accounted for 27.9% of Australia's exports in 2016 and they focus in raw materials such as coal and ore. (Australia's trade in goods and services, 2017) Their economy is very vulnerable, as China looks to reduce their investment in large scale infrastructure projects and focuses on cleaner energy. The United States have to be conscious through their trade wars with China, that they don't go as far as pushing China into a debt crisis. Their claim that Chinese trade policies are unfair for their nation are not unjust, but their policies favoring big corporations are as much to blame as the Chinese subsidies. Corporate America is vulnerable to China shifting towards a consumer-driven economy in order to refocus their economy and reduce their credit reliance. As Chinese companies rise in the development of advanced goods, the top American companies will lose out on a market that accounts for a significant amount of sales and growth potential.

The countries that have been beneficiaries of China's economic support will also be affected by a debt crisis in China. Starting with the countries within the Belt and Road initiative, in the case of further cases of countries being unable to afford their debt repayments, China would show less leniency towards restructuring and debt-for-equity swaps. Pakistan is at the forefront of the program and is seen as the most vulnerable. Those countries looking for support who do not have projects started yet may see the opportunity for capital injections delayed or be taken away all together. China has come to the aid to emerging markets when the Western nations have said no, most recently helping Turkey through their financial crisis. Countries going through financial difficulties will have to rely solely on the IMF of assistance, if China is to enter an economic depression.

POLICY RECOMMENDATIONS

Improve Liquidity

China currently has the third largest bond market in the world but the presence of foreign investors is limited. Developing a robust local government bond market will improve local government financing and capital market developments. In order to improve the liquidity of the market, they must broaden the investor base to allow for a greater influx of capital from institutional investors. In order to accomplish this it will be necessary to increase investor confidence. As previously stated China's sovereign credit rating of A+ by S&P shows investors are cautious regarding their debt situation. Investors will demand higher return to compensate for their increased risk. Clear policy actions and increased transparency will help to build confidence within the rating agencies.

Another method for improving liquidity would be to promote the swap of debt for equity stakes to institutional investors. This would further allow for a heavily indebted corporate sector to lower their leverage ratios. This would also align with their move to allowing the economy to become more market driven and less government determined. In 2016, China started allowing the big four state-owned banks to set up asset management companies to exchange the debt of companies facing temporary difficulties or equity stakes. By 2017 the banks converted $149.2 billion of debt held by over 70 state-owned enterprises into stock holdings. (Yeung 2017) The issue is this there is significant moral hazard to this system, because the banks know they are protected and it is the taxpayers who will see the costs. It defers contagion risks to a later date but the risks still remain within the Chinese economic system. The banks also forfeited the business opportunity to receive interest and principal payments. In order to improve this program, it is necessary to improve the interest of the private sector investors, especially those outside of China. Currently the banks are selling the bad debt at face value and swapping it for equity at the same value. (Yeung 2017) This signals that state owned enterprises are unwilling to accept losses from government assets. Private sector investors will want to see debt offered at a discounted rate in order to be enticed into the deal. If the prices for debt to equity swaps is allowed to be set by the market, then this will reduce the contagion risks in China and improve the liquidity of the state owned enterprises.

Consolidate Local Government Debt

In an effort to clean up the balance sheets of local governments, China needs to ensure their financing quota is large enough to include all off-budget LGFV fiscal spending within the budget. An effort has been made to reduce the reliance on off-budget spending but tighter fiscal responsibility is still needed. This will improve the resiliency of the local government bond market and improve their transparency to all stake holders. Institutional investors are worry about the Chinese market because the ambiguity associated with their reporting of their economic statistics. Increased openness will go a long way in gaining investors trust and help transition their economy to one that is market driven.

Improve Government Efficiency and Increase Revenue

Intergovernmental fiscal reform is needed in order to reduce the local government expense down from the current 80% of general government expenditure. In many areas the government from top to bottom is operating incredibly inefficiently. Since 2008, there has been inefficient resource allocation and it is imperative this changes in order to solve this situation. Further decentralization is needed in order to improve accountability and allow local governments to tailor their fiscal policy to greater represent the needs of their region. For example, tax rates are currently set on a national level and often do not match the needs of the individual regions. A national guideline could be established with federal benchmarks, which allow for local governments to tailor to the unique features of their region. The return on investment through capital injections has been low and it is important that they focus on assets with higher potential for revenue, such as the development of high quality commodities.

Shift the Focus of the Economy

China rise as a developing economy has been largely thanks to their use of infrastructure as an engine for economic growth. Debt financing is the fuel for that engine, but its time for China to find more sustainable and efficient fuels for their economies. The "Made in China 2025" initiative is on the right track but more can be done. The policy outlines arguably the ten largest industries but does not go into specifics on how they plan to become a leader in each industry. In order to ensure their allocation of capital is done efficiently and to avoid being spread out to thin, China should narrow the list to five sectors. Further analyses is needed to understand which industries China can offer the most comparative advantage towards, but an example would be ocean engineering equipment and high-end vessels since China is home to seven of the top ten shipping ports by volume. (Top 50 World Container Ports, n.d.) The importance of the success of this shift in their economy was one stressed by Dr. Wong as a necessary step to reduce their reliance on debt-intensive heavy industry. Shenzhen has become a leader in digital technology developments and similar economic zones can be established for the other key industries.

CONCLUSION

China is not on the brink of a debt crisis in the short term but there are serious concerns to the sustainability of their debt load and decisive policy actions are needed to correct their current course. Analyzing debt sustainability and debt vulnerabilities is a complicated task, especially when the economy is as large as China's. There is no signal indicator that can determine when a financial crisis will take place or what level of debt a given country can withstand. What is known through the analysis of China's current situation is there needs to be continued emphasis on changing the drivers of their economy to more sustainable and less debt intensive industries. Further investments by local governments and state-owned enterprises need to strong potential for a return on investment. It is clear that China's debt sustainability and their economic growth rate are directly linked. If the growth rate is to further decrease then their debt becomes increasingly more difficult to pay off. If a debt crisis were to take place then their growth rate would sharply decline, and become a drag on global growth. Lastly, the entire Chinese system is riddled with moral hazard, which makes their system vulnerable to future economic downturns. The mentality of government officials needs to change away from believing they will always be bailed out, towards profitable investments that can lead their country towards being an advanced economy. There is great potential for this nation but a naive approach to their current situation could be very costly.

REFERENCES

A to Z Textile Mills Ltd. (n.d.). *Company Profile*. Retrieved 2015 йил 29-November from A to Z Textile Mills: http://www.azpfl.com/index.php/en/profile/company-profile

A.E. (2014, April 4). *Weaning Poland off Russian Gas.* Retrieved from The Economist: https://www.economist.com/blogs/easternapproaches/2014/04/poland-and-russia

Adamus, W., & Wojciech, F. J. (2016). The evolution of shale gas development and and energy security in Poland: presenting a hierarchical choice of priorities. *Energy Research and Social Science, 20*, 168-178. doi:http://dx.dio.org/10.1016/j.erss.2016.08.010

Aguilera, R. V., Rupp, D. E., Williams, C. A., & Ganapathi, J. (2007). Putting the S Back in Corporate Social Responsibility: A Multilevel Theory of Social Change in Organizations . *Academy of Management Review*, 836-862.

Alidina, Z., Colaco, R., Alic, A. S., Mchac, J. H., Mwalimud, C. D., Thawera, N. G., . . . Ngon, J. M. (2015). Taking local ownership: government and household contribution to indoor residual spraying in Zanzibar and mainland Tanzania. *International Health, Oxford Journals*.

Australia's trade in goods and services. (2017, June). Retrieved from Australian Government: Department of Foreign Affairs: https://dfat.gov.au/about-us/publications/trade-investment/australias-trade-in-goods-and-services/Pages/australias-trade-in-goods-and-services-2016.aspx

Baltensberger, T. e. (2017, July 15). European Union gas market development. *Energy Economics, 66*, 466-479. doi:10.1016/j.eneco.2017.07.0020140-9883/

Barteczko, A. (2017, June 23). *INTERVIEW-Poland eyes more U.S. LNG supplies following Trump's visit- minister.* Retrieved from Reuters: https://in.reuters.com/article/poland-trump-lng/interview-poland-eyes-more-u-s-lng-supplies-following-trumps-visit-minister-idINL8N1JK2CF

Bauerowa, L., & Martewicz, M. (2016, June 24). *As Europe drops coal, Poland embraces it.* Retrieved from Bloomberg Businessweek: https://www.bloomberg.com/news/articles/2016-06-24/as-europe-drops-coal-poland-embraces-it

Baxter, V., & Kroll-Smith, S. (2005). Normalizing the Workplace Nap. *Current Socialogy*, 33-56. BBC. (2017, December 12). *Poland profile - timeline.* Retrieved from BBC News: http://www.bbc.com/news/world-europe-17754512

Berlin, & Jena. (2014). *Still not over the wall*. Retrieved November 2017, from The Economist: https://www.economist.com/news/business/21631048-few-big-companies-have-headquarters-east-germanys-old-internal-border-still-not-over-wall

Bjorkman, I., Fey, C., & Jeong Park, H. (2007). Institutional theory and MNC subsidiary HRM Practices . *Journal of International Business Studies*, 430-446.

BMW. (2017). *BMW Leipzig*. Retrieved November 2017, from BMW Group Werke: https://www.bmwgroup-werke.com/leipzig/de.html

Boardman, C. M., & Kato, H. K. (2003). The Confucian Roots of Business Kyosei. *Journal of Business Ethics*, 317-333.

Bontje, M., Musterd, S., & Pelzer, P. (2011). *Inventive City Regions.* Ney York, USA: Routledge.

Bouzarovski, S., & Konieczny, M. (2010). Landscapes of paradox: public discourses and policies in Poland's relationship with the Nord Stream Pipeline. *Geopolitics, 15*(1), 1-21. doi:https://doi-org.ezproxy.library.uvic.ca/10.1080/14650040903420362

Brada, J. (1996). Privatization is Transition – Or Is It? *Journal of Economic Perspectives , 10*, 67-86.

Burgen, S. (2016, April 5). *Adios Siesta*. Retrieved from The Guardian: https://www.theguardian.com/world/shortcuts/2016/apr/05/adios-siesta-is-it-goodbye-to-spains-national-nap

Canada: National debt from 2012 to 2022 in relation to gross domestic product (GDP). (2018). Retrieved December 10, 2018, from Statista: https://www.statista.com/statistics/271233/national-debt-of-canada-in-relation-to-gross-domestic-product-gdp/

Caprio, G., Folkerts-Landau, D., & Lane, T. (1994). *Building Sound Finance in Emerging Market Economies.* Washingnton, USA: International Monetary Fund World Bank.

Carlin, W. (1994). Privatization, distribution and economic justice: efficiency in transition-Privatization in Central and Eastern Europe. *Longman*.

Cassala, C. (2016, January 1). *Innovative start-ups*. Retrieved November 2017, from Business & Innovation: https://www.tatsachen-ueber-deutschland.de/en/chapter/business-innovation/innovative-start-ups

Cavendish, R. (2006). Charles V Spanish Abdication. *History Today*.

Cerdeira Bento, J. P. (2017, June). Fossil fuel power generation and economic growth in Poland. *Energy Sources, Part B: Economics, Planning, and Policy, 12*(10), 930-935. doi:https://doi-org.ezproxy.library.uvic.ca/10.1080/15567249.2017.1324536

Chambers, M. (2015). *West Germany and the former Communist East are still 'astonishingly different'.* Retrieved November 2017, from Business Insider: http://www.businessinsider.com/west-germany-and-the-former-communist-east-are-still-astonishingly-different-2015-7?IR=T

Chen, S., & Kang, J. S. (2018, January 5). Credit Booms—Is China Different? *IMF Working Papers*, 22.

Cheng, K., & Low, P. (2014). *Corporate Social Responsibility in Asia.* Switerzerland: Springer International Publishing.

China exports, imports and trade balance By Country 2016. (n.d.). Retrieved December 3, 2018, from World Bank: World Integrated Trade Solution: https://wits.worldbank.org/CountryProfile/en/Country/CHN/Year/2016/TradeFlow/EXPIMP/Partner/by-country

China Gross External Debt. (2018, December). Retrieved from Trading Economies: https://tradingeconomics.com/china/external-debt

China's vanished current-account surplus will change the world economy. (2018, May 17). Retrieved from Economist: https://www.economist.com/finance-and-economics/2018/05/17/chinas-vanished-current-account-surplus-will-change-the-world-economy

China's leaders set economic priorities for 2018. (2017, December 21). Retrieved from China Economic Review: https://chinaeconomicreview.com/chinas-leaders-set-economic-priorities-2018/

Connoly, K. (2015). *German reunification 25 years on: how different are east and west really.* Retrieved December 2017, from The Gauridian : https://www.theguardian.com/world/2015/oct/02/german-reunification-25-years-on-how-different-are-east-and-west-really

Cullinan, T. (2018, September 5). *Sovereign Ratings List*. Retrieved from S&P Global Ratings: https://www.capitaliq.com/CIQDotNet/CreditResearch/RenderArticle.aspx?articleId=2094866&SctArtId=460712&from=CM&nsl_code=LIME&sourceObjectId=10686413&sourceRevId=1&fee_ind=N&exp_date=20281001-19:20:54

Cutts, R. L. (1992). Capitalism in Japan: Cartels and Keiretsu. *Harvard Business Review*, 48-55.

Davis, S. (2010). Strategic CSR in the Japanese Context (Chapter 17). In S. Davis, *Innovative CSR: From Risk Management to Value Creation* (pp. 374-396). South Yorkshire, United Kingdom: Greenleaf Publishing Limited.

DCED. (2017, May 01). *Increased productivity creates economic growth*. Retrieved November 2017, from DCED: https://www.enterprise-development.org/what-works-and-why/evidence-framework/increased-productivity-creates-economic-growth/

Deutsche Welle. (2017). *The History of East Germany*. Retrieved November 2017, from Deutsche Welle: http://www.dw.com/en/the-history-of-east-germany/a-16311777

Dyck, I. (1997). Privatization in Eastern Germany: Management Selection and Economic Transition. *87*, 565-597.

Eichengreen, B., & Ritschl, A. (2008). *Understanding West German Economic Growth in the 1950s.* Retrieved November 2017, from http://eprints.lse.ac.uk/22304/

Encyclopædia Britannica. (2017). *Comecon*. (Encyclopædia Britannica, inc.) Retrieved December 2017, from Encyclopædia Britannica: https://www.britannica.com/topic/Comecon

European Commission. (2014, July 2). *In-depth study of European Energy Security.* Retrieved from Europa: https://ec.europa.eu/energy/sites/ener/files/documents/20140528_energy_security_study.pdf

Eurostat. (2016). *Energy Dependence.* Retrieved from Europa Eurostat: http://ec.europa.eu/eurostat/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tsdcc310&language=en

Eurostat. (2016). *Energy Intensity of the Economy.* Retrieved from Europa Eurostat: http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tsdec360&plugin=1

Eurostat. (2016). *Simplified energy balances - annual data.* Retrieved from Europa Eurostat: http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do

Eurostat. (2017). *Gas prices by type of user.* Retrieved from Europa Eurostat: http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=ten00118&plugin=1

Fielding, C., Jimenez, J., Orlik, T., & Wan, Q. (2018, February 9). *Sizing up Chinas Debt Bubble Bloomberg Economics.* Retrieved from Bloomberg: https://www.bloomberg.com/news/articles/2018-02-08/sizing-up-china-s-debt-bubble-bloomberg-economics

Gale Cengage Learning. (2014). *East Germany from Stalinization to the New Economic Policy*. Retrieved October 2017, from Archives Unbound: http://gdc.gale.com/archivesunbound/archives-unbound-east-germany-from-stalinization-to-the-new-economic-policy-19501963/

Gaz-System. (2017). *About Us*. Retrieved December 15, 2017, from Gaz-System: http://en.gaz-system.pl/about-us/

Ghaussy, A., & Schäfer, W. (1993). The Economics of German Unification. *Routledge*, 120-140.

Günther, J., & Gebhart, O. (2005). Eastern Germany in the Process of Catching up: The Role of Foreign and West German Investors in Technological Renewal. *Eastern European Economics, 43*(3), 78-102.

Hajdu, J. (2013). *Berlin Story Verlag: Berlin Today.* Berlin , Germany: Alles über Berlin GmbH.

Hanson, K. (2004). PUBLIC AND PRIVATE ROLES IN MALARIA CONTROL: THE CONTRIBUTIONS OF ECONOMIC ANALYSIS. *The American Journal of TropicalMedicine and Hygiene*, 168-173.

Heather, J., Hamerow, T., Wallace-Hadrill, J., Duggan, L., Barkin, B., & Elkins, T. (2017). *Germany*. (Encyclopædia Britannica, inc.) Retrieved November 2017, from Encyclopædia Britannica: https://www.britannica.com/place/Germany

Henderson, J. (2016, January). *Gazprom – is 2016 the year for a change of pricing strategy in Europe?* Retrieved from The Oxford Institute for Energy Studies: https://www.oxfordenergy.org/wpcms/wp-content/uploads/2016/01/Gazprom-Is-2016-the-Year-for-a-Change-of-Pricing-Strategy-in-Europe.pdf

Historiana. (2017). *The Cold War: The Division of Germany*. Retrieved November 2017, from Historiana: http://historiana.eu/case-study/cold-war/division-germany

Hunt, J. (2006). *The Economics of German Reunification.* McGill University. Montreal: McGill University.

Immowelt . (2017). *Hauspreise in Deutschland*. Retrieved December 2017, from Immowelt : https://www.immowelt.de/immobilienpreise/deutschland/hauspreise

INFRA Update. (2010, June). Retrieved from World Bank: http://siteresources.worldbank.org/INTSDNET/Resources/5944695-1247775731647/INFRA_China_Newsletter.pdf

Janusz, M. (2014, September 12). *Poland looks to import natural gas from United States, Canada.* Retrieved from Reuters: https://www.reuters.com/article/energy-poland-lng-usa/poland-looks-to-import-natural-gas-from-united-states-canada-idUSL5N0RB3J720140910

Jennings, M. (2011). *Economic Impact of Local Manufacturing of Bednets: A Survey.* London, England: SOAS, University of London.

Jensen, R., & Szulanski, G. (2004). Stickiness and the adaptation of organizational practices in cross-border knowledge transfers. *Journal of International Business Studies*, 508-523.

Johnmann. (2017, April). Divison of east and west Germany. *Washinton State University*.

Johnmann, O. (2017). *Divison of east and west Germany.* Washington State University. Washington State University.

Johnson, C. (2001). Japanese "Capitalism" Revisted. *SAGE Social Science Collections*, 57-79.

Jowett, M., & Miller, N. J. (2005). The financial burden of malaria in Tanzania: Implications for future government policy. *International Jounal of Health Planning and Management*, 67-84.

Kaufman, M. R., Rweyemamu, D., Koenker, H., & Macha, J. (2012). “My children and I will no longer suffer from malaria”: a qualitative study of the acceptance and rejection of indoor residual spraying to prevent malaria in Tanzania. *Malaria Journal*.

Kostova, T. (1999). Transnational Transfer of Strategic Organizational Practices. *Academy of Management Review*, 308-324.

Kostova, T., & Roth, K. (2002). Adoption of an Organizational Practice by Subsidiaries of Multinational Corporations. *Academy of Management Journal*, 215-233.

Krawczyk, D. (2016, September). Analysis of Energy Consumption for Heating in a Residential House in Poland. *Energy Procedia, 95*, 216-222. doi:https://doi.org/10.1016/j.egypro.2016.09.053

Kwok, C. C., & Tadesse, S. (2006). The MNC as a agent of change for host-country institutions. *Journal of International Business Studies*, 767-787.

Lam, E. (2018, October 16). *China May Have $5.8 Trillion in Hidden Debt With ‘Titanic’ Risks*. Retrieved from Bloomberg: https://www.bloomberg.com/news/articles/2018-10-16/china-may-have-5-8-trillion-in-hidden-debt-with-titanic-risks

Lam, R. W., & Wang, J. (September 2018). China’s Local Government Bond Market. *IMF Working Paper*.

Lawler, J. J., Chen, S.-j., Wu, P.-C., Bae, J., & Bai, B. (2011). High-performance work systems in foreign subsidaries of American Multinationals. *Journal of International Business Studies*, 202-220.

Lee, J.-h. (2018, July 4). *South Korea will be one of ‘hardest hit economies’ if trade war breaks out*. Retrieved from South China Morning Post: https://www.scmp.com/news/china/diplomacy-defence/article/2153645/south-korean-firms-may-get-caught-crossfire-us-trade

Leick, R., Schreiber, M., & Stoldt, H.-U. (2017). *Out of the Ashes: A New Look at Germany's Postwar Reconstruction* . Retrieved Decemeber 2017, from Spiegel Online: http://www.spiegel.de/international/germany/out-of-the-ashes-a-new-look-at-germany-s-postwar-reconstruction-a-702856.html

Li, Y. (2017, November). *China's Debt Problem and Rising Systemic Risks*. Retrieved from South Centre: https://www.southcentre.int/wp-content/uploads/2017/11/RP83_Chinas-Debt-Problem-and-Rising-Systemic-Risks_EN.pdf

Lovato, N., & Lack, L. (2010). The effects of napping on cognitive functioning. *Progress in Brain Research*.

MacDougall, W. (2016). *Eastern Germany Investment and Innovation Location* . Retrieved from Germany Trade and Investment Association : https://www.gtai.de/GTAI/Content/EN/Invest/_SharedDocs/Downloads/GTAI/Fact-sheets/PEG/eastern-germany-investment-innovation-location.pdf?v=9

Marketline. (2014). *Germany: Unified Nation, Devided Economy?* Journal, Marketline.

McMillan, S. (2017, September 1). Why Poland is a threat to the European Union. *New Zealand International Review, 42*(5), pp. 1-4. Retrieved from http://ezproxy.library.uvic.ca/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=125240017&site=ehost-live&scope=site

McNerney, D. J. (1995, March). Napping at Work. *Opinion and Insight*.

Munteanu, D., & Sarno, C. (2016). South Stream and Nord Stream 2 - implications for the European energy security. *Análise Europeia, 2*, 60-96. Retrieved from http://www.apeeuropeus.com/uploads/6/6/3/7/66379879/munteanu_daniela__sarno_ciro__2016_.pdf

Nelson, S. (2017, August 1). *Poland clashes with European Union over logging in primeval forest.* Retrieved from National Public Radio: https://www.npr.org/sections/parallels/2017/08/01/540097654/poland-clashes-with-european-union-over-logging-in-primeval-forest

New World Encyclopedia. (2015). *German Reunification*. Retrieved from New World Encyclopedia: http://www.newworldencyclopedia.org/entry/German_reunification

Noack, R. (2014). *The Berlin Wall fell 25 years ago, but Germany is still divided*. Retrieved November 2017, from The Washington Post: https://www.washingtonpost.com/news/worldviews/wp/2014/10/31/the-berlin-wall-fell-25-years-ago-but-germany-is-still-divided/?utm_term=.dabdac0a00ae

OCED. (1989). *OECD Economic Surveys: Germany 1989*. Retrieved from http://dx.doi.org/10.1787/eco_surveys-deu-1989-en

Oskin, B. (2015 йил 07-May). *Japan Earthquake & Tsunami of 2011: Facts and Information*. Retrieved 2015 йил 29-November from livescience: http://www.livescience.com/39110-japan-2011-earthquake-tsunami-facts.html

PGNiG. (2017, March). *Annual report 2016.* Retrieved from PGNiG: http://www.pgnig.pl/annualreport2016/wp-content/uploads/sites/5/2017/03/PGNiG_Annual-Report-2016-1.pdf

PGNiG. (2017, November 21). *PGNiG signed a 5-year contract for LNG with Centrica.* Retrieved from PGNiG News: http://en.pgnig.pl/news/-/news-list/id/pgnig-signed-a-5-year-contract-for-lng-with-centrica/newsGroupId/1910852

Pham, P. (2018, March 7). *What Will China's Future Look Like?* Retrieved from Forbes: https://www.forbes.com/sites/peterpham/2018/03/07/what-will-chinas-future-look-like/#ecf54207488d

Polski LNG S.A. (2017). *Energy Security for Poland.* Retrieved from LNG.PL.EDU Education Portal: http://lng.edu.pl/en/about-lng/energy-security/energy-security-for-poland/

Porsche . (2017). *Porsche Leipzig*. Retrieved November 2017, from Porshce AG: https://www.porsche-leipzig.com/en/home/

Porter, M. (1979, May). The five competitive forces that shape strategy. *Harvard Business Review, 59*(2), pp. 137-145. Retrieved from https://s3.amazonaws.com/academia.edu.documents/32580687/HBR_on_Strategy.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1513245795&Signature=KVRpkUBmUFjU8XgnOTaGBwZ3OiI%3D&response-content-disposition=inline%3B%20filename%3DHBR_on_Strategy.pdf#page=25

Rapoza, K. (2016, August 12). *Poland roadblocks Russia's Nord Stream 2 Pipeline.* Retrieved from Forbes: https://www.forbes.com/sites/kenrapoza/2016/08/12/poland-roadblocks-russias-nord-stream-2-pipeline/#12730f774baf

Reilly, K. (2016, April 5). Spanish Priminister Proposes Ending the Siesta. *Time Magazine* .

Sagers, J. (2014). Shibusawa Eiichi, Dai Ichi Bank, and the Spirit of Japanese Capitalism, 1860-1930. *The Journal of Japanese Business and Comapny History*, 3-13.

Sarra, J., & Nakahigashi, M. (2002). Balancing Social and Corporate Culture in the Global Economy: The Evolution of Japanese Corporate Structure and Norms. *Law and Policy*, 299-354.

Sawa, L. (2013, April 10). *Diversification of Polish natural gas supply*. Retrieved from Ministry of Treasury Republic of Poland: https://msp.gov.pl/en/polish-economy/economic-news/4924,Diversification-of-Polish-natural-gas-supply.html

Shagina, M. (2017, November 22). *EU divisions and US sanctions to delay Nord Stream 2.* Retrieved from Global Risk Insights: https://globalriskinsights.com/2017/11/nord-stream-2-delayed/

Sharp Trader. (2017). *Overview of the DAX 30 Stock Market Index*. Retrieved December 2017, from Sharp Trader: http://www.sharptrader.com/new-to-trading/stock-indices/overview-of-the-dax-30-stock-market-index/

Slumberwise. (2013, June 10). Retrieved from Slumberwise: http://slumberwise.com/health/siesta-the-little-nap-with-a-big-history/

Stampi, C. (1992). *Why we nap.* Boston: Birkhauser.

Standard & Poor's Ratings. (2011, April 27). Retrieved from Standard & Poors: http://img.en25.com/Web/StandardandPoors/Ratings_Definitions.pdf

Statistische Ämter des Bundes und der Länder. (1950). *The Five-Year Plan for 1951-1955* . Retrieved November 2017, from Statistische Ämter des Bundes und der Länder: www.statistik-portal.de

Statistisches Bundesamt. (2016). *German unemployment rates in 2016.* Census, Berlin.

Stulberg, A. N. (2015, April 16). Out of Gas?: Russia, Ukraine, Europe, and the Changing Geopolitics of Natural Gas. *Problems of Post-Communism, 62*(2), 112-130. doi:https://doi-org.ezproxy.library.uvic.ca/10.1080/10758216.2015.1010914

Stulberg, A. N. (2017, February). Natural gas and the Russia-Ukraine crisis: Strategic restraint and the emerging Europe-Eurasia gas network. *Energy Reserach & Social Science, 24*, 71-85. doi:https://doi.org/10.1016/j.erss.2016.12.017

Sumitomo Chemicals. (2006). *Sumitomo Chemical donates Olyset nets to Africa's Millennium Villages.* Chemical Business Newsbase, Business Collection .

Sumitomo Chemicals. (2015). *CSR Report 2015- Sustainable Chemistry.*

Sumitomo Chemicals. (n.d.). *CSR Global management*. Retrieved 2015 йил 29-November from Sumitomo Chemicals: http://www.sumitomo-chem.co.jp/english/csr/management/global.html

Sumitomo Chemicals. (n.d.). *Local Production of Olyset Net*. Retrieved 2015 йил 29-November from Sumitomo Chemicals: http://www.sumitomo-chem.co.jp/english/csr/olysetnet/production.html

Sumitomo Chemicals. (October 2015). Vice President of Tanzania dedicates Olyset Net Factory in Arusha. Arusha, Tanzania: The Flag Ship Group.

Sumitomo Chemicals. (n.d.). *Providing Disaster Recovery Support*. Retrieved 2015 йил 29-November from Sumitomo Chemical: http://www.sumitomo-chem.co.jp/english/csr/disaster_recovery/

Sumitomo Chemicals. (n.d.). *University of London School of Oriental and African Studies (SOAS) REleases Economic Impact Study.* Retrieved 2015 йил 29-November from Sumitomo Chemicals, Environmental Health Division: http://sumivector.com/news/university-london-school-oriental-and-african-studies-soas-releases-economic-impact-study

Sumitomo Corporation. (n.d.). *Sumitomo's History*. Retrieved 2015 йил 29-November from Sumitomo Corporation: http://www.sumitomocorp.co.jp/english/company/history/

Szurlej, A. (2013). The state policy for natural gas sector. *Archives of Mining Science, 58*(3), 925-940. doi:10.2478/amsc-2013-0065

Tanimoto, K. (2013). *Encyclopedia of Corporate Social Responsibility.* Berlin Heidelberg: Springer-Verlag.

Telefonica. (2016). *About Us*. Retrieved from Telefonica: https://www.telefonica.com/en/web/about_telefonica/in-brief

The Economist. (1999, February 6). Europe: Selling the Spanish Siesta. p. 54.

The Economist. (2016, November 10). *Poland plans to exhume plane-crash victims to prove a Russian conspiracy.* Retrieved from The Economist: https://www.economist.com/news/europe/21709992-far-right-government-thinks-president-lech-kaczynskis-death-was-no-accident-poland-plans

The White House. (206, July 8). *Fact Sheet: US-Poland Relations.* Retrieved from The White House of President Obama Archives: https://obamawhitehouse.archives.gov/the-press-office/2016/07/08/fact-sheet-us-poland-relations

Top 50 World Container Ports. (n.d.). Retrieved December 2, 2018, from World Shipping Council: http://www.worldshipping.org/about-the-industry/global-trade/top-50-world-container-ports

Total credit to the non-financial sector. (n.d.). Retrieved November 20, 2018, from Bank for International Settlements: https://stats.bis.org/statx/srs/table/f1.2

USAID. (2007). *Task Order Malaria: FY2007 Annual Report.* USAID.

Vodafone. (2016). *About us*. Retrieved from Vodafone Website: https://www.vodafone.com/content/index/about/where.html#

Watts, G. (2018, August 21). *Beneath the tip of China's nightmare debt mountain*. Retrieved from Asia Times: http://www.atimes.com/article/beneath-the-tip-of-chinas-nightmare-debt-mountain/

Zajaczkowa, M. (2016). *Threats and challanges to EU energy security.* Crakow: Crakow University of Economics.