Capital Markets INITIATIVE

A Primer on Borrowing

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CAPITAL MARKETS 101

A third way fresh thinking publication

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INTRODUCTION

The financial crisis of 2008 had a devastating impact on the American and global economy, in part because different sectors of the economy took on too much debt. America is home to $52 trillion in cumulative debt when government, business, and personal debt are added together—nearly four times the output of the entire American economy.[1]

But is debt bad? The simple fact is that debt, in the right amount, is an essential part of healthy capital markets and a pillar of economic growth.

The story of economic growth is in many ways a story of debt. As historian Niall Ferguson points out, "the evolution of credit and debt was as important as any technological innovation in the rise of civilization… without the foundation of borrowing and lending, the economic history of our world would scarcely have gotten off the ground."[2]

Debt, in the right amount, is an essential part of healthy capital markets and a pillar of economic growth.

From Mesopotamian farmers to medieval Venetian merchants to British industrialists to American entrepreneurs, debt has been used to create value and economic growth. It is as essential to the functioning of the economy as blood is to the heart.

What is the Right Amount of Debt?

Table A: United States Debt as a % of GDP by Sector[3]

	1980	1990	2000	2009
Government	38%	57%	57%	67%
Non-Financial Business	52%	65%	67%	79%
Financial Institutions	16%	24%	43%	53%
Household	49%	59%	72%	97%
Total Debt	**154%**	**204%**	**227%**	**296%**

In fact, without healthy capital markets, businesses, governments, and households would be unable to obtain a loan—to create a business and hire workers, to issue bonds to build infrastructure, or to obtain an education through a student loan. It is important for policymakers to understand the central role that debt plays in creating economic growth, because whether America stands atop the medal stand in the world economy will be determined in part by how wisely we—government, business, and citizens—borrow for our future.

IS DEBT ALWAYS BAD?

Debt can be classified as productive and unproductive.

Productive debt is used to create assets that will yield enough income to pay back both the principal and interest on a loan, or that facilitates the management of day-to-day business operations. Unproductive debt is used to create assets that will not pay back the loan or is used for expenditures that do not increase revenues.

There are no hard and fast rules that ensure borrowing will be productive. Successful borrowing depends on such things as overall and specific industry business cycles, the individual circumstances of businesses and consumers, the political environment and macroeconomic events.

But for borrowers—businesses, governments, and individuals—it is crucial to consider whether the debt will improve future business revenues, tax reciepts, and personal income.

As you can see in Table A, debt in the United States as a share of the Gross Domestic Product (GDP) rose significantly from 154% in 1980 to 296% in 2009. This increase in debt occurred in all sectors of the economy. How much is too much debt? It depends on how much can reasonably be expected to generate revenue. A lot of the debt we incur is necessary for robust economic growth.

HOW TO GET A LOAN

There are two major ways to obtain a loan—through a bank or through bonds.

Banks

When a person or a business needs a loan, one option is a bank. Banks evaluate borrowers based on their likely ability to pay back the loan, and charge higher interest rates to riskier borrowers. Banks serve an important intermediary role by collecting the savings of a wide range of individuals—attracting deposits by offering to pay interest—and loaning those funds to businesses and individuals that can use them productively.

Short-Term vs. Long-Term Lending

An important aspect of successful borrowing can be to match the length of the loan (maturity) with the term of the capital project. For example, say GE would like to borrow to build a new factory to manufacture jet fighter engines. It can take years for the company to create the factory to specifications, hire employees to produce the engines, and to earn revenues on the sale of the engines.

Given the length of time it will take to earn revenues to pay off the loan, it can be beneficial to borrow the funds for a similar amount of time. If GE borrowed the money for only 90 days at a time, it would be forced to repeatedly renew its loans before the project is completed. If changes occur in investor sentiment—for example, doubts about the company or a severe recession—GE may not be able to extend its loans, potentialy putting the project in doubt.

The Bond Market

The stock market usually gets most of the press attention, with television and newspapers commenting daily on the fluctuations of major stock indices like the Dow Jones Industrial Average. Yet the bond market is larger. The total size (market capitalization) of the stock market in the U.S. is $14.3 trillion, while the total size of the American bond market is $31.2 trillion.[4]

The bond market allows businesses and countries access to a wider range of investors, while typically lowering the costs of borrowing. Banks provide valuable funding to companies, but to protect their loans, banks often attach clauses that restrict the activities of the borrower. While bonds can also have clauses, businesses—particularly large and successful corporations—are attracted to the bond market because it can be viewed as less restrictive.[5]

When a company or country wants to borrow funds, it can issue bonds to the public. The bonds specify the loan amount (principal), the annual interest rate the company or country will pay the investor who purchased the bonds, and the maturity date—which means the date when the bond issuer will return the full amount of the bond to the investor. Bonds come in a variety of loan amounts and maturity dates. Unlike stocks, which allow investors to own a share of a company, bonds are simply IOUs.

How Do Bonds Really Work?

Say Apple issues bonds that have a face (par) value of $10,000 each. The bond pays a 5% rate of annual interest—the prevailing market rate—on the face value of the bond with a maturity of 10 years. The investor would give Apple $10,000 when purchasing the bond. Apple would then make annual interest payments of $500 to the investor (this $500 is also known as the coupon). At the end of the 10 year period, Apple would return the initial $10,000 to the investor. This would mean that the investor would have received $15,000 at the end of 10 years: ($500 x 10) + $10,000 = $15,000.

If an investor holds the bond to maturity, then he or she doesn't have to worry about the price of the bond. However, there is a large secondary market where bonds trade after their initial purchase, and investors can sell their bonds before the maturity date.

Investors may want to sell early for a variety of reasons. For example, they may have other investment opportunities that would allow them to earn a higher return than they are currently receiving on their bond. Without a market where investors can sell their bonds before their maturity date, investors would be hesitant to tie up large amounts of their money for an extended period of time. This would reduce the overall amount of money available to borrow in the bond market, which in turn would make borrowing more expensive.

Unlike stocks, the value of bonds are directly affected by interest rates. Take the Apple example. Suppose the prevailing market rate for corporate bonds is now 10%. Purchasers of newly issued $10,000 bonds could typically receive a 10% interest rate—or $1,000 a year in income. So what happens to the value of the bond issued at 5% interest? It declines—if investors can get $1,000 a year by paying $10,000 for a newly issued bond, they would pay much less for a bond that only yielded $500 of annual income.

The exact price of this bond would be determined by a formula that represents the present value of the future coupon payments and principal repayment of the bond. The important thing to remember is that the price of a bond has an inverse relationship with interest rates, meaning that when interest rates rise the prices of bonds fall, and vice versa.

Credit Rating Agencies

In addition to worrying about interest rates, bond investors also worry about default risk—meaning that a corporation or government is unable to return the full amount of the loan to the investor. Credit rating agencies provide ratings to the issuers of bonds, both corporate and government. These ratings are intended to express the likelihood that the bond issuer will default as well as the magnitude of the expected loss to bond holders.

Given the large volume of bonds available, these ratings provide the average investor a tool to evaluate individual bond issues. There are three major credit rating agencies: Moody's, Standard & Poors, and Fitch. Some entities—such as pension funds—can only invest in bonds that have received a high rating from one of these three credit rating agencies. However, many investors are hesitant to rely solely on these ratings. During the housing boom, the credit rating agencies gave their highest ratings to many mortgage-backed securities that eventually soured, tarnishing their record in the eyes of many investors.

Investors demand higher interest rates for bonds they percieve as riskier investments. For example, Greece is currently mired in a debt crisis and as a result, interest rates on their bonds are extremely high. On the other hand, United States Treasury bonds are still considered one of the safest investments in the world compared to other options, which is reflected by the low interest rates on its bonds.

In addition, when a bond is downgraded investors perceive the bond issuer as more likely to default. As a result, the price of the bond declines in the market, and the interest rates demanded for newly issued bonds rise.

Credit Ratings

AAA is the highest rating that is issued and is reserved for issuers such as Microsoft, ExxonMobil, or Johnson & Johnson.[6] Bonds that are rated below BB- are considered non-investment grade, or junk bonds. That does not mean that a junk bond is a bad bond, rather it is a riskier bond. And to entice investors to purchase a junk bond, the issuer must offer a higher interest rate. The general meaning of our credit rating opinions is summarized below.[7]

AAA Extremely strong capacity to meet financial commitments. Highest rating.

AA Very strong capacity to meet financial commitments.

A Strong capacity to meet financial commitments, but somewhat susceptible to adverse economic conditions and changes in circumstances.

BBB Adequate capacity to meet financial commitments, but more subject to adverse economic conditions.

BBB- Considered lowest investment grade by market participants.

BB+ Considered highest speculative grade by market participants.

BB Less vulnerable in the near-term but faces major ongoing uncertainties to adverse business, financial and economic conditions.

B More vulnerable to adverse business, financial and economic conditions but currently has the capacity to meet financial commitments.

CCC Currently vulnerable and dependent on favorable business, financial and economic conditions to meet financial commitments.

CC Currently highly vulnerable.

C Currently highly vulnerable obligations and other defined circumstances.

D Payment default on financial commitments.

NOTE: Ratings from 'AA' to 'CCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

HOW BUSINESSES USE DEBT

Businesses use debt to grow and operate by making productive investments. There are several ways businesses productively use debt. One example is when a company borrows to create assets that will, at minimum, produce enough revenue to cover the principal and interest on a loan, with a goal of making a profit. This can be to build a factory, upgrade software and computer systems, or to acquire another company that can be successfully integrated into the existing business.

Another type of business debt is sometimes known as *revolving debt*. Many small businesses establish a line of credit with a bank. The bank issues a credit card to the small business owner to pay for the day-to-day operations of a business. The bank establishes a credit limit for the small business owner based on the business model (i.e. the ability to pay off debts with revenues from the business) and personal assets.

One use of revolving debt is to pay employees and suppliers. A firm will usually have assets that it could sell to cover these costs, but that would disrupt the production process and ultimately reduce revenues. By obtaining a loan to pay the day-to-day costs of business, the firm can increase its revenues in the long run. Borrowing in this way allows businesses to create value and economic growth.

Did You Know Debt Interest is Tax Deductible?

One reason borrowing is attractive for a business is that interest costs on business debt are 100% tax deductible in the United States. On the other hand, public companies that issue stocks must pay taxes on any dividends they issue to shareholders, making debt a more attractive option than issuing stock to the public, all other things being equal. The tax advantage of debt is referred to as the "tax shield."[8] There is vigorous debate among tax experts regarding the tax shield, and critics argue that it encourages corporations to load up on debt, contributing to an overleveraged economy.

How Can a Banking Crisis Bring Commerce to a Halt?

When banks face a crisis they often tighten lending standards and reduce overall lending, which can cause revolving loans to be reduced or eliminated.[9] The many complaints from small business owners during our recent financial crisis reflect this phenomenon. When small businesses can't borrow from banks, or access their lines of credit, they are often forced to lay off workers or close down altogether. Many policymakers have been focused on ensuring small businesses have access to credit, because a lack of credit can cause significant damage to small businesses and the overall economy.

Borrowing to Grow

Some growing companies depend upon debt to acquire other companies and increase profits. Maryland-based McCormick & Co. was founded in 1889 by Willoughby M. McCormick, who made root beer and fruit syrups in his Baltimore cellar.[10] By the 2000s, McCormick had grown into an S&P 500 company. The business now manufactures and distributes a variety of spices and specialty food products and employs more than 7,000 workers. Known for its consistent growth, the company has paid dividends for 75 straight years and has increased dividends for 25 consecutive years.[11]

McCormick recently capitalized on its success with its greatest acquisition yet: In 2008 the company purchased Lawry's for $604 million. At the time, McCormick held assets worth about $3 billion, but only about $40 million was in cash. To raise cash for the acquisition, McCormick sold one of its brands, Season-All, for $15 million. But the company still needed more funds to buy Lawry's—and debt was its solution. McCormick sold to investors $500 million in five and ten-year bonds, which paid between 5.25% and 5.75% interest.[12]

In their 2010 Annual Report, McCormick executives wrote that their largely debt-financed acquisition of Lawry's was a great success. By 2009, McCormick's profits had grown 10 percent, enough to pay off all the debt used to buy Lawry's, with enough cash remaining to make new acquisitions, increase dividend payments and buy back $400 million in stock.[13]

HOW CONSUMERS USE DEBT

Consumer debt exploded over the last 30 years. With the cost of borrowing at historic lows, consumers took on more and more debt. In 2011, household debt was 90% of GDP, down from its peak of almost 100%[14] in 2008, but far higher than 72% in 2000. Like government and businesses, individuals may use debt productively or unproductively. Using a credit card to buy a $120 shirt may be an enjoyable and satisfying experience at the time, but it is not a productive use of debt. However, consumers may decide, based a number of reasons, that buying the shirt and paying interest are worth the cost.

In 2011, household debt is 90% of gross domestic product.

Borrowing to improve future earnings is a productive investment, and student loans are a prime example. Successfully completing college is expected to add $1 million to an individual's lifetime earnings, according to a study by Anthony P. Carnevale and Stephen J. Rose.[15]

While credit ratings agencies rate government and corporate bonds, consumer reporting agencies determine the credit worthiness of consumers. There are three major consumer reporting agencies: Experian, TransUnion, and Equifax. These agencies gather personal credit information and use a formula to determine a consumer's credit score, also known as a FICO score. These scores, based on a model created by the Fair Isaac Corporation (FICO), depict a consumer's history of debt and are often used by lenders, landlords and even potential employers to determine whether they should lend to them or in some cases hire them.

With high consumer debt levels, it is not surprising that today's consumer has on average thirteen credit obligations on record at a credit bureau.[16] These include credit cards (such as department store charge cards, gas cards, and bank cards) and installment loans (auto loans, mortgage loans, student loans, etc.).[17] Of these thirteen credit obligations, nine are likely to be credit cards and four are likely to be installment loans.[18]

It is generally agreed that consumers borrowed too much over the past decade. In the years ahead, many individuals will have to bring down their debt levels, also known as deleveraging. In the short run, the deleveraging of household balance sheets will reduce overall demand, slowing the economy. According to the Federal Reserve Bank of Atlanta, deleveraging of households, businesses and governments "has proved to be a potent force that has reduced the economy's ability to heal quickly after the last financial crisis and the ensuing recession."[19] However, lower debt levels for consumers will allow them to better manage their finances in the future, including the capacity to borrow productively.

When Should You Borrow?

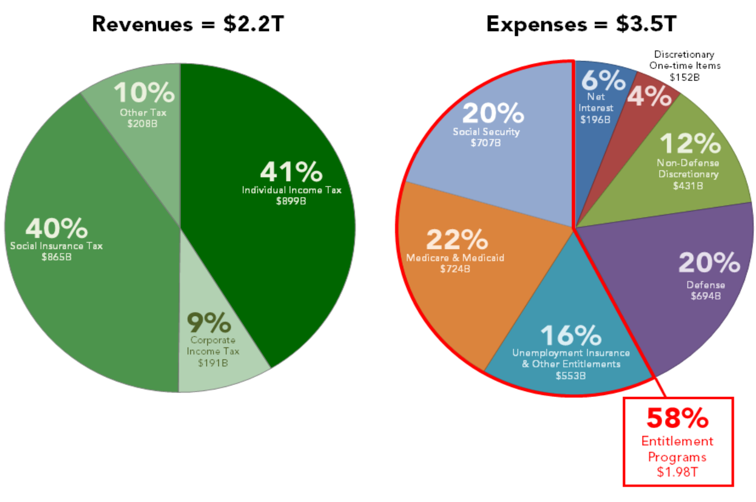
Like corporations that face the ups and downs of a business cycle, individuals also face a "business cycle" when it comes to debt and a capacity for borrowing. Generally speaking, safe borrowing is heavily influenced by both age and income—households typically borrow when they are young, save during their peak earning years, and live off of savings during retirement. Peak earnings for the average worker occur from age 35-54.[20]

HOW GOVERNMENTS USE DEBT

The debate over our national debt has become too simplified—treating all debt as bad, regardless of how it is used.Often missing is a basic discussion about the productive and unproductive uses of government debt. Government investment in productive assets such as infrastructure, education, and research and development increases the productivity and capacity for economic growth of the underlying economy.

Below are two pie charts that break down both the revenues and expenditures of the federal government for Fiscal Year 2010. As you can see, a majority of our budget is spent on entitlements such as Medicare and Social Security. Non-defense discretionary spending makes up only 12% of the budget, and defense 20%. Entitlement spending is important but is generally not productive spending.

FY2010 At-A-Glance[21]



The federal deficit is the amount the government spends beyond what it receives in tax revenues in any one year. For Fiscal Year 2010, the federal deficit was $1.3 trillion. Whenever government expenditures are more than government revenues for a fiscal year, the government must borrow to make up the difference. The federal government does this by issuing Treasury bonds to the public.

For the federal government, the money it borrows from the public is not devoted to any particular item or purpose, but is used to pay whatever bills it is presented that are not covered by tax revenues.

Productive Uses of Government Debt

Government plays a critical role in improving the underlying productive capacity of the economy, which helps businesses to create value and growth. The private sector will always be the engine of economic growth, but government can improve that engine by providing tools that will help businesses expand and prosper. These are tools that would be difficult, if not impossible, for the private sector to provide.

For example, without a well maintained highway system and air traffic control system, the shipping company FedEx would not be able to operate its business profitably. By providing transportation infrastructure, the government ensures companies like FedEx and UPS are able to deliver a service, hire workers, and create value and economic growth.

To be clear, there is vigorous debate over the scope of productive investments that can adequately be addressed by the private sector and those that require government support. However, there are clearly some investments that lay beyond the capacity of the private sector alone. U.S. history is replete with examples of public investment that supported private commerce. For example, the Erie Canal in New York would not have been built without a public-private partnership.

This means government borrowing can be essential even in times of overall debt reduction. As Mary Meeker, a partner at the venture capital firm Kleiner, Perkins, Caufield, and Byers points out, “When companies’ backs are to the wall, the knee-jerk reaction is to cut everything. But good business leaders preserve spending on research and development because eating one’s seed corn is self-defeating. The same goes for USA Inc.”[22]

Indiscriminately slashing government spending or refusing to borrow for productive investment would constitute eating our seed corn. Borrowing that is used to increase America’s future tax revenues can be a productive use of debt.

DEBT IS NOT ALWAYS A FOUR LETTER WORD

Despite the hand-wringing, debt is not always a bad thing. Debt is essential for the smooth functioning of America's highly complex economy.

It is true that just like food, you can overindulge in debt. Too much debt has serious repercussions. However, the right amount of debt is as essential to our economy as proteins are to a healthy body.

Imagine a country without debt; it would be like an engine without oil. It would just stop. As Niall Ferguson points out, "without the ever-growing network of relationships between creditors and debtors, today's global economy would grind to a halt."[23]

Without debt, entrepreneurs with an idea would not be able to start a company, build a factory or hire workers to make and sell products. Governments would not be able to issue bonds for infrastructure projects like better roads that help to cut commutes in half. Students who need a loan to go to college would not be able to get a degree to advance their career.

America's capital markets provide a crucial function for the country; they issue all kinds of debt, including mortgages, credit cards, and bonds. People, businesses, and governments borrow every day, allowing the wheels of commerce to continue turning.

THE CAPITAL MARKETS INITIATIVE

About CMI

Third Way created the Capital Markets Initiative (CMI) to unpack the opaque issues that decision makers confront when working on financial policy. Instead of the dense approach used in a basic economics or finance class, CMI's goal is to make these topics much more lively and accessible.

The different formats—timely short papers called Hot Issue Briefs, a dynamic distinguished speaker series called Capital Markets 101, and informative primers on the basics—allow policymakers to more easily understand how capital markets really work and add value.

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For more information about Third Way or the Capital Markets Initiative, please visit www.thirdway.org.

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