It is accepted as fact that "there is no [public] money" for higher education in our country today. And it is a political reality that the tax increases that could provide more revenue for it are often unpopular. Working Americans, suffering from high levels of unemployment and declining real wages, beleaguered by mortgage, college loan, and other debt, are understandably resistant to the idea of increasing taxes, even though they are being effectively "taxed" through higher tuition and other increased costs for public services.

*As Rudy Fichtenbaum's paper emphasizes, there **is** money in this country, and there **are** sources of revenue that could be tapped if there were the political will to do so. Fichtenbaum's paper discusses the value of a new tax on selected Wall Street financial transactions that could generate, according to a number of experts, anywhere from $176.9 to $353.8 billion in revenue **per year,** enough to adequately fund public higher education with money to spare.*

This proposal would undoubtedly encounter powerful and well-funded opposition and actually has encountered such when it has been proposed in the past. Yet, such a tax would provide much needed revenue and, as the title of a bill (HR 4191) introduced in the House of Representatives by Cong. Pete DeFazio suggests, it would provide a valuable way for Wall Street to help rebuild Main Street. If we are serious about the importance of higher education in the 21st Century, Fichtenbaum concludes, such a tax proposal should be on the table.

How to Invest in Higher Education: A Financial Speculation Tax

By Rudy Fichtenbaum
President, American Association of University Professors
Professor of Economics, Wright State University

The Affordability Gap

Over recent years, most states have severely reduced their support for public higher education. Institutions of higher education have responded by replacing public support with ever-rising levels of tuition.

Data shows that in 1986 public educational appropriations (state, local and federal) per full-time equivalent student was $8,025 (constant 2011 dollars, i.e., adjusted for inflation). By 2011, that support was down to $6,290. Meanwhile, net tuition per full-time equivalent student at public institutions was $2,484 in 1986; by 2011, it was up to $4,774. (Source: State Higher Education Executive Officers)

Clearly as public support per student declined, public institutions replaced public funding by increasing tuition.

To put tuition increases in historical perspective relative to family income, consider these facts:

- In 1969, tuition at a public 4-year institution was roughly 8% of median family income, and tuition at a public 2-year institution was only 2.7% of median family income.

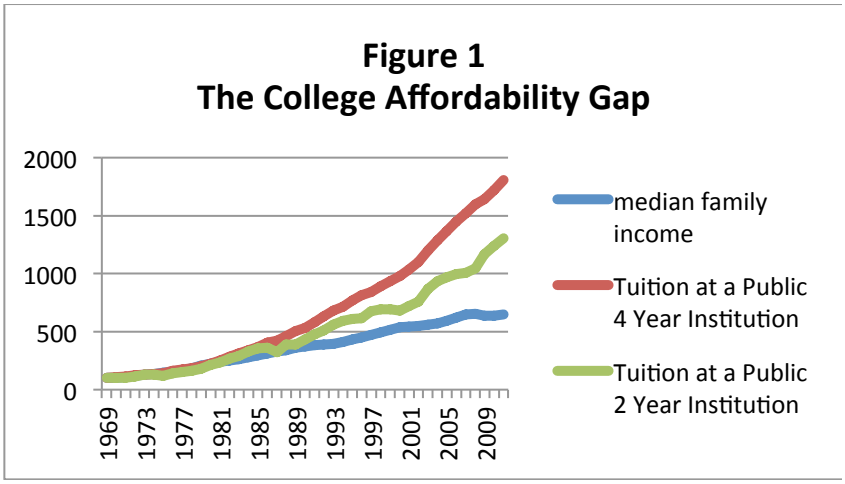
- By 2011, tuition at a public 4-year institution had risen to 22.3% of median family income while tuition at public 2-year institutions had more than doubled, reaching 5.3% of median family income

  (Source: Digest of Educational Statistics and Bureau of Census).

These increases mean that the responsibility to pay for higher education has shifted more and more heavily onto working and middle-class families at a time when they can least afford it.

While some may argue that working and middle-income families should simply save more to pay for education, this is virtually impossible since tuition rates are increasing at twice the rate of inflation and median family income has been declining for more than a decade. In fact, real median family income in 2011 was actually lower than it was in 1989.

With tuition costs rising faster than incomes, working class families are being forced either to give up on sending their children to college or to take on increasing levels of debt.



Source: Digest of Educational Statistics & Bureau of Census

Figure 1 shows the affordability gap that began to develop in 1981 at public 4-year and 2-year institutions roughly a decade later.

A major consequence of the affordability gap is the rise in student debt.

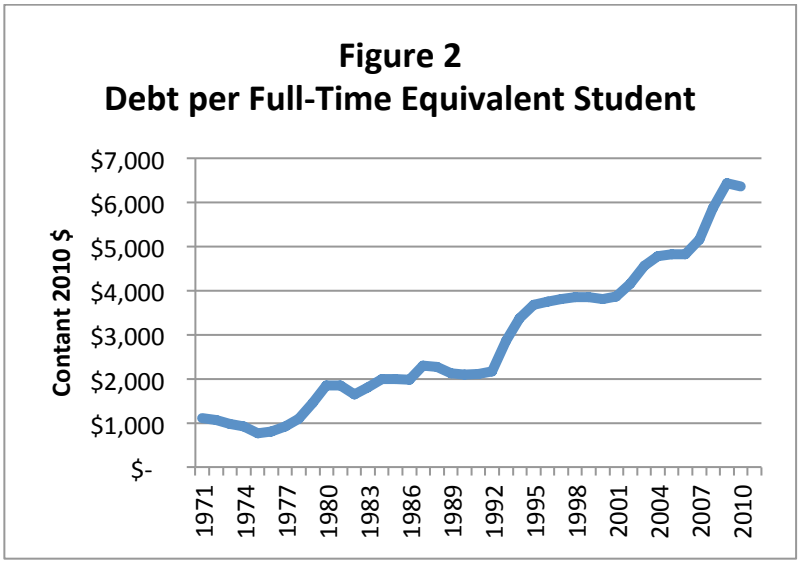


Figure 2 shows student debt (adjusted for inflation) has risen from $1108 in 1971 to $6368 in 2010.

Source: The College Board

Ultimately, rising tuition along with the crushing burden of student debt will put higher education out of reach for millions of working-class and middle-class families in the U.S.

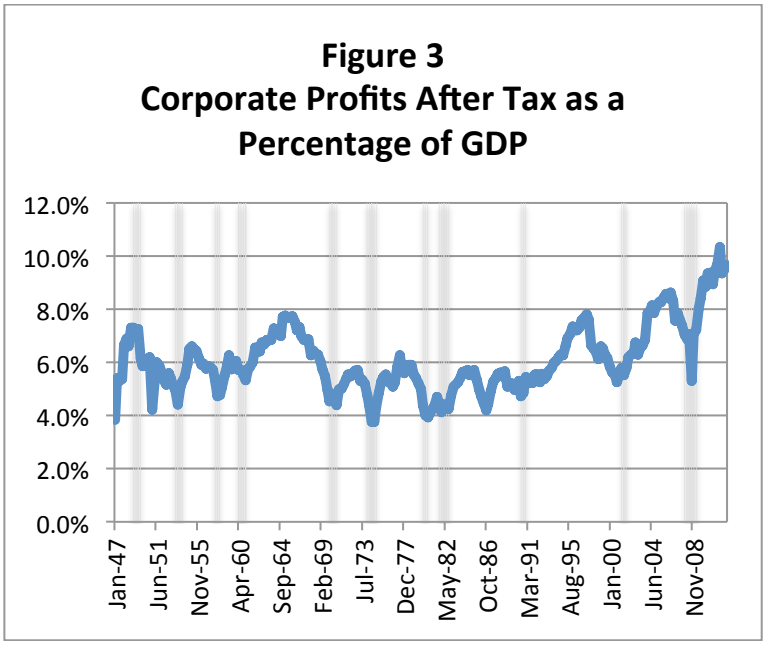
While there are other dimensions to rising tuition, including the growth of administrative spending, in recent years the primary culprit has been declining public appropriations for higher education.

The solution to the current crisis of affordability requires that we find an alternative source of public funding.

Can we afford more public funding?

There are some who would argue that we just do not have the money to invest in higher education. **The facts, however, prove otherwise**.

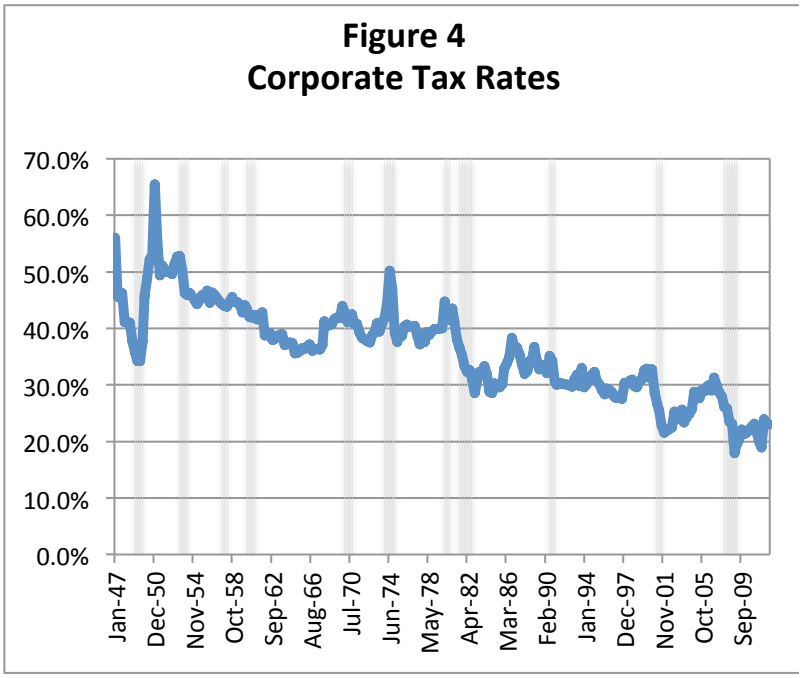
Corporate profits after tax as a per cent of General Domestic Product, for instance, have been rising since the 1980s, interrupted for brief periods by recessions. While the effects of the Great Recession (2007-2009) in terms of employment linger on, it is clearly business as usual with respect to corporate profits.



Source: Bureau of Economic Analysis

Figure 3 shows that corporate profits, after declining sharply, have now recovered and in fact are at an all time post-war high.

Meantime, the effective tax rate paid by U.S. corporations has been declining. While corporate leaders often complain that the U.S. has the highest corporate tax rates, in reality there are so many loopholes and strategies for tax avoidance that the amount of taxes paid by U.S. corporations as a percentage of corporate profits continue to decline.



Source: Bureau of Economic Analysis

Figure 4 shows the decline in corporate tax rates (after tax breaks and deductions)

Now, look at one more piece of the corporate profit picture—the profits of financial corporations, mainly banks and insurance companies, as a percentage of all-corporate profits.

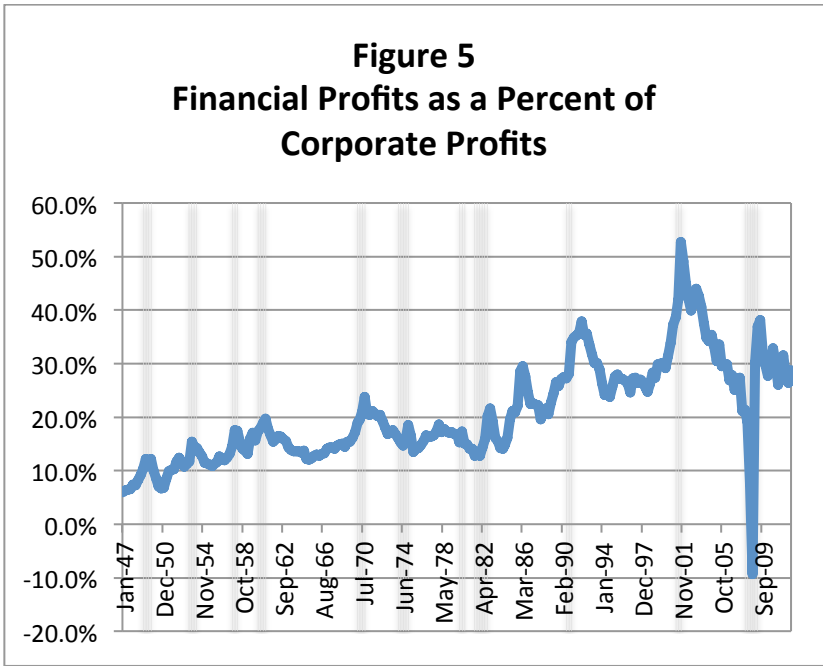


Figure 5 shows that while there was a sharp decline in financial corporate profits and, in fact, significant losses for financial corporations during the Great Recession, there was an ***equally*** sharp recovery.

Source: Bureau of Economic Analysis

Wages are a different story. While corporate profits have risen and corporate taxes fallen, wages (adjusted for inflation) for most Americans have been stagnant or declining.

From 1947 until about 1973, wages as a percent of GDP were fairly stable. This meant that as the GDP grew, workers actually shared in that growth and achieved a higher standard of living.

Since 1973 wages as a percentage of the GDP have been declining for most categories of workers. Wages reached an all-time post-WorldWar2 low in 2012 (Source: Bureau of Economic Analysis).

Yet, the decline in wages as a share of GDP is just part of this story because the salary earnings of the wealthiest Americans are included in this total. While the wages of most Americans have fallen, those of the wealthiest Americans have grown dramatically.

In fact, virtually all of the increase in wage inequality since the mid-1980s has been due to growing incomes for the top 5% of wage earners with most of the gains concentrated in the share going to the top 1% of wage earners (Source: Picketty and Saez).

Of course, wage income is only one source of income. If one looks at the total income earned by the top 1% of all Americans, including capital gains earnings, one sees that the share of this group has increased even more dramatically.

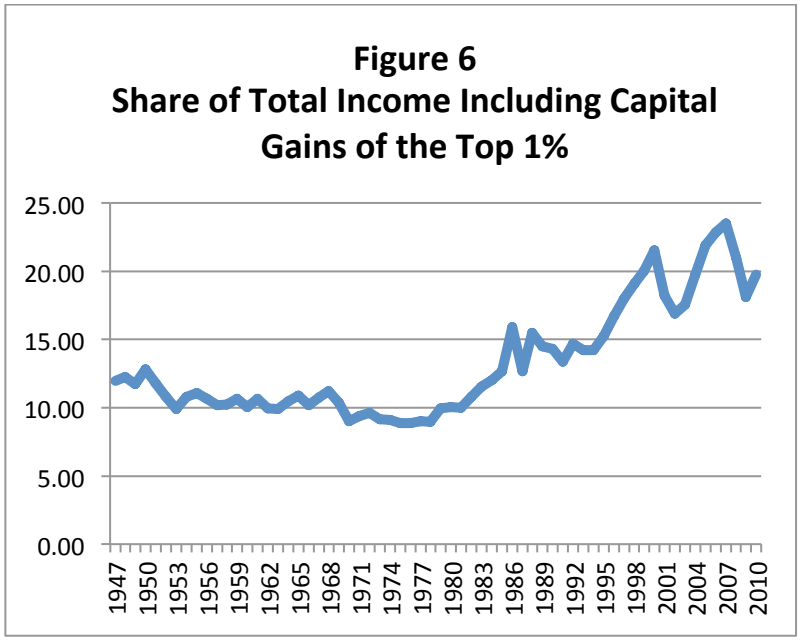


Figure 6 shows the dramatic increase in total income of the top 1% in the U.S.

Source: Picketty and Saez

This dramatic increase in inequality comes at a time when tax rates for the wealthiest Americans have been reduced.

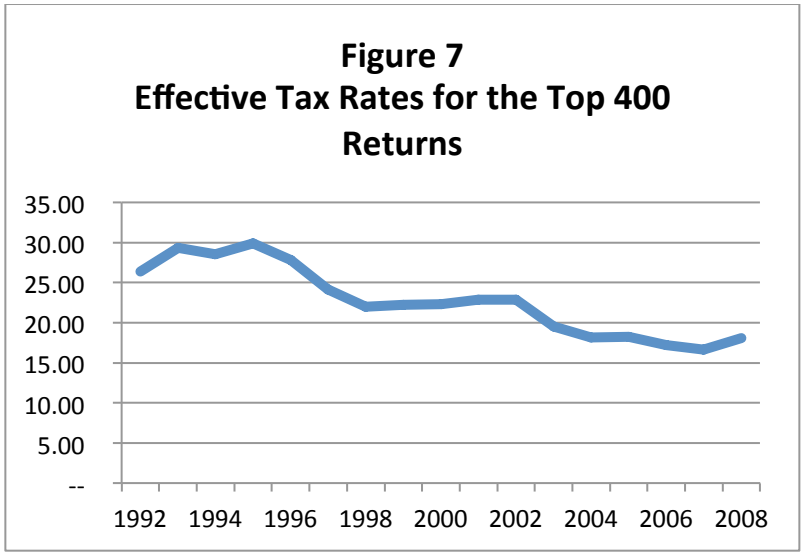


Figure 7 shows the effective tax rate for individuals with the top 400 returns.

Source: Tax Policy Center

So the economic bottom line for Americans is a stark one: the wealthiest among us are receiving record levels of income and paying less in taxes while higher education, historically a vehicle for upward mobility, has become more expensive.

Increasingly, working-class and middle-class Americans are unable to gain access to higher education or are taking on crushing levels of debt to do so. We are told that all of this is necessary because there is no money to fund higher education in the richest country in the world.

Funding Higher Education with a Tax on Financial Speculation

One way to begin funding higher education more adequately and more fairly would be with a financial speculation transactions tax—that is, a tax on financial transactions such as trades in stocks, bonds, and selected other financial instruments.

The United States would not be alone if it were to institute a financial transactions tax—many countries, including the United Kingdom, Switzerland, Sweden, Taiwan, Singapore, France, Finland, Poland, and Columbia have them. In fact, even the U.S. had a financial transactions tax from 1914 to 1966 and still has a very small transactions tax to support the work of the Securities and Exchange Commission.

To understand the potential benefits of a tax on financial transactions, it's helpful to know a little about the stated purpose of so-called capital markets. See the side-bar at the end of this paper (pages 11-12) for an overview of this topic.

Proposals for such taxes have actually been introduced in both the House and the Senate. In the House, Representative Pete DeFazio introduced a bill calling for a tax on speculators, HR 4191 "Let Wall Street Pay for the Restoration of Main Street Act." In the Senate, Tom Harkin sponsored a bill S2927, "Wall Street Fair Share Act."

The value of a financial transactions tax is that, given the volume of transactions, even at a very low rate it can raise an enormous sum of money.

According to a study by Dean Baker, Robert Pollin, Travis McArthur and Matt Sherman published by the Center for Economic and Policy Research, a financial transactions tax could generate $176.9 to $353.8 billion in revenue per year.

Table 1 shows the amount of money that could be raised by transaction type, depending on the level of reduction in the number of transactions the tax might cause. The tax rates needed to generate the revenue shown in Table 1 vary from 0.01% on foreign exchange spot transactions to 0.5% on stocks and equities and options premiums.

Table 1: Estimated Revenue from Financial Transactions Taxes by Source
(Billions of $)

			Assumed Reduction in Trading Volume		
			0%	25%	50%
	Tax Rates	Transactions in 2008		Revenue	
Stocks & Equities	0.50%	$43,325.6	$216.6	$162.5	$108.3
Bonds	0.02%	$262,143.9	$52.4	$39.3	$26.2
Options Premiums	0.50%	$1,680.3	$8.4	$6.3	$4.2
Foreign Exchange Spot Transactions	0.01%	$156,634.5	$15.7	$11.7	$7.8
Futures (notional amount outstanding)	0.02%	$71,449.7	$14.3	$10.7	$7.1
Swaps (notional amount outstanding)	0.04%	$115,867.8	$46.3	$34.8	$23.2
Total			**$353.8**	**$265.3**	**$176.9**

Source: http://www.cepr.net/index.php/publications/reports/ftt-revenue

As you can see these are very low tax rates. Even the highest rate is more than 10 times lower than most state sales tax rates.

The most likely scenario, given the experience of other countries, is that the taxes proposed in the type of tax outlined by Baker, Pollin, McArthur and Sherman would reduce trading volume somewhere between 0% and 25%.

So in other words, a financial transactions tax could be expected to yield somewhere between $265 billion and $354 billion a year.

Some might worry that such a tax could reduce efficiency in financial markets and lead to slower economic growth. The fact is, however, that many taxes create some type of economic distortion by providing incentives for people to act in ways that reduce some kinds of economic "efficiency." For example, corporate executives choose to take large portions of their incomes in stock options because capital gains are taxed at lower rates than ordinary income. As a result they worry more about stock prices than the long-term investments needed to spur economic growth.

Other taxes, such as those on cigarettes or alcohol, are widely recognized as promoting "efficiency" by providing incentives for people to reduce unproductive activity.

Many economists believe that a small tax on financial transactions could have similarly beneficial economic effects beyond the revenue generated. These experts consider many characteristics of today's speculative financial activity (e.g., high-frequency trading, and trading in mortgage-backed securities and credit default swaps) to be of dubious value and to be actually harmful to the nation's economy. Some argue that the additional costs generated by the dramatic increase in such trading far outweigh any potential benefits and that the economy would be better off if we reduced the volume of this kind of trading.

These are reasons that a financial transaction tax has been supported by prominent economists, including James Gailbraith, Dean Baker, Simon Johnson, Lawrence Summers, Thea Lee, Jeffrey Sachs, and Nobel laureates Joseph Stiglitz and Paul Krugman.

How the Additional Federal Revenue Could Be Used

To invest in higher education, my proposal would use $75 billion of revenue generated by a financial transactions tax to provide additional funding for public higher education. How much money is $75 billion? In Fiscal Year 2012, all of the states taken together spent about $72.5 billion on higher education (source: http://grapevine.illinoisstate.edu/tables/index.htm). It represents about 5% of what the U.S spends on the military.

What could public higher education do with an additional $75 billion?

1 – CUT TUITION ($28 billion). The first priority should be cutting tuition to ensure that higher education is affordable for more families.

Using Fiscal Year 2010 data as an example, we see that tuition at all public institutions was approximately $56 billion. Using $28 billion from a financial transactions tax, tuition rates could be cut by 50% — to approximately $28 billion. In FY2010 the average tuition per full-time equivalent student at a public 4-year institution was $7,275 and tuition per FTES at 2-year public institutions was $2,091. So average tuition could be cut to $3,638 at 4-year public institutions and $1,046 at public 2-year institutions. (Source: Digest of Educational Statistics)

2 – INCREASE INSTRUCTIONAL SPENDING ($47 billion). The second priority should be to increase instructional spending, first to step up advising students so that they are more likely to enroll in classes in which they can succeed, and second to hire more tenure-track faculty to increase instructional quality, increase graduation rates, and reduce the amount of time it takes to attain a degree.

The effect of these increased expenditures for improving quality in higher education and student success could be very significant. In 2010, instructional spending was $76 billion, which was only 27% of total expenses. The additional $47 billion would bring instructional spending to 43% of total expenses.

What would it mean to increase instructional spending to 43% of total expenses? At public 4-year institutions, assuming that it costs $70,000 a year plus 30% for benefits to hire a tenure-track assistant professor, public 4-year institutions could hire an additional 394,000 tenure-track assistant professors. This would more than double the size of the full-time faculty at public 4-year institutions and allow for all part-time positions to be converted to full-time.

To put it more plainly, virtually all classes taken by your daughter or son would be taught by faculty whose time was fully committed to their institution and who were fully supported by their institution. At 2-year institutions, assuming a tenure-track assistant professor makes about $55,000 plus 30% for benefits, public 2-year institutions could hire 155,000 tenure-track assistant professors. This would more than double the size of the full-time faculty at 2-year public institutions where currently only 32% of the faculty is full-time.

The examples above are meant to be illustrative. Of course, there are other ways to allocate this money, such as increasing scholarships, hiring more academic advisors, and reducing class sizes, all of which can improve the learning experience of students and lead to greater success and higher graduation rates.

Conclusion

A modest tax on financial transactions, a tax that would primarily affect wealthy speculators, many of whom have benefited from the government bail-out of Wall Street banks during the Great Recession, would be an important piece of adequate funding for public higher education.

Traditionally, the burden of funding public higher education has fallen on the states. However, over a period of years states have been disinvesting in public higher education, transforming it from a public good into a private good. In the process they have greatly increased the cost of attending college, forcing students and their families to take on ever increasing piles of debt.

If current trends continue, higher education will no longer be available to the vast majority of working-class and middle-income families. Yet, given the changing nature of jobs in our economy, we need to increase, not decrease, access to higher education. We must ensure that future generations will be prepared for the jobs of the future. As globalization makes the world smaller, we need a more educated citizenry to help address problems —violence, pollution, energy, global warming, poverty— that threaten the very existence of human society.

We could qualitatively change the nature of public higher education by additional spending that amounts to just 5% of what we spend on the military. With this proposed tax, we could go a long way toward providing everyone in our country with the opportunity to receive a high quality college education. And there would be revenue left over. Our nation could put this money to use addressing the many additional challenges we face.

An Overview of Capital Markets

Capital markets are organized to bring savers and investors together and to move capital from sectors where it is less productive to sectors where it will be more productive. Consequently, most economists think that capital markets help promote efficiency and economic growth.

If individual businesses had to rely on generating their own capital for future investment, they would only be able to invest funds they had set aside from their own profits. However, some individuals have excess savings because they have made profits, but opportunities to expand their own business are limited. On the other hand, there are new innovations and new businesses that do not have the funds they need to expand production. In this respect, then, financial markets can play a useful role by bringing together people with excess funds (savings) with people who have ideas about how to use those funds for productive investment.

Historically, there have been two major vehicles to raise capital—stocks and bonds. Selling stock is a way to raise capital by conferring ownership on stockholders who stand to gain by sharing in future profits. But stockholders incur risk, too, since the company may not make profits (thus neither distributing dividends nor enjoying a rise in share prices); and ultimately, if the company goes bankrupt, stockholders may lose their investment altogether.

Selling bonds is an alternative way for companies to raise funds for investing. When a company sells a bond, it is taking out a loan from the bondholder and promising to pay interest and ultimately return the lenders' principal.

When people invest in stocks and bonds, they should do so based on the belief that the companies in which they are investing are fundamentally sound. In theory, this means that investors should analyze the past performance of a company and have an understanding of the company's position in the market and thereby make an educated guess at the potential for success in the future. This is known as examining market fundamentals. But most individuals do not have the time or possess the knowledge to make these judgments. So, they either hire someone or pool their funds with a large group of people who, in effect, hire an expert by purchasing shares in a mutual fund.

In order for financial markets to function in this textbook fashion, there must be rules. For example, companies must disclose their financial position and all potential investors must have access to the same information. If companies fail to disclose pertinent information or certain individuals have access to information before it is widely disclosed, then markets will not function efficiently. One might say in addition that markets will not function *fairly* either.

Today, however, financial markets are a far cry from the textbook version described above. According to the *New York Times*, 50% to 70% of all trades on stock exchanges today are done by high frequency traders. High frequency trading involves borrowing huge sums of money and writing computer algorithms to buy and sell large volumes financial instruments in the space of a few seconds in order to take advantage of very small movements in the prices of assets. Decisions about buying and selling have nothing to do with underlying fundamentals or with allocating capital resources. The activity of high frequency traders is much more akin to casino gambling but with very real potential to destabilize financial markets.

CONTINUED

In addition to high frequency trading, financial markets have been transformed by the tremendous growth in the market for derivatives. A derivative is any financial asset that is based on the market value of some other underlying assets. Futures markets are a long-established example of derivatives; they determine prices for crude oil and for crops (soybeans) and other agricultural commodities (pork bellies). The market for mortgage-backed securities, which collapsed when the housing bubble burst, is a more recent example of a derivative.

Economists have argued that derivatives can act like insurance policies protecting investors against risk. If you make just a few housing loans in a local market and a big plant closes and many people in an area lose their jobs, there is a high risk that many in that local market will default on their mortgages. To protect against this risk, local banks sell their mortgages to investment banks, which in turn create mortgage-backed securities that bundle together these mortgages. This allows for greater diversification and can offer better protection against default. However, recognizing that even with this diversification, there remains a certain level of risk, investment banks created yet another derivative, a credit default swap, which is, in effect, an insurance policy against default.

The problem with pricing a credit default swap, or any other insurance policy, is that the insurer needs to understand the underlying risk. For example, to sell a life insurance policy, one needs to understand the probability that the insured individual will die. This is fairly easy for life insurance companies to determine. However, in the market for mortgage-backed securities, one must be able to estimate the probability of default, and this in turn depends in part on estimating whether housing prices will go up or down.

Unfortunately, as we now know, the very existence of mortgage-backed securities, fueled by low interest rates, helped drive up housing prices creating a speculative bubble in the housing market. The very nature of speculative bubbles makes it virtually impossible to predict exactly when they will burst. Although a few economists recognized that a housing bubble existed, no one knew exactly when housing prices would collapse. Therefore, it was virtually impossible to correctly price credit default swaps (insurance policies) for mortgage-backed securities.

In the end, investments in credit default swaps expanded exponentially, with hedge funds in effect buying insurance policies on mortgages that they did not own. An analogy would be you buying life insurance policies on people you didn't even know—just betting that a certain number of them would die and allowing you to collect on the insurance policy.

When housing prices started declining, the entire market for mortgage-backed securities collapsed and credit markets froze (no one could borrow money), events that threatened the existence of our entire financial system. Although the government bailout of Wall Street ultimately saved our financial system, ordinary working Americans and others around the world paid a heavy toll. Millions of working families lost their jobs, their homes, and their retirement savings. Although the Great Recession is officially over, and it is business as usual on Wall Street, it is anything but business as usual for working families who are still reeling from the effects of the financial collapse.

The problem with these types of transactions (e.g., high-frequency trading and trading in mortgage-backed securities and credit default swaps) is that while under certain circumstances they may protect individual investors, they also create the potential for what economists call systemic risk. Systemic risk is different than individual risk in that there is no way to estimate the underlying probability of this risk and hence no way to insure against it. Derivatives were major contributors to the systemic risk that led to the collapse of financial markets and the subsequent collapse of the U.S. economy.

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