This is the twelfth year that Professor Deardorff has invited me to share with his class my experiences since leaving Michigan with my degrees in Economics in 1959. I keep asking him every year, “Do students still want to hear what somebody who is their grandfather’s age has to say?” He tells me he gets good feedback so I’m back.

First, I’d like to learn something about you!

- Econ?
- International Economics?
- MBA?
- Law?
- Graduate School in Economics?
- Other fields?
- In State?
- Out of State?
- International?

Over these past years that I have been meeting with this class, I have tried to do three things:

First, to sketch briefly my career over these past fifty years in order to give you some idea of the challenges you will face, the variety of different circumstances you will encounter and to share with you how Michigan, and particularly the Department of Economics, prepared me for the myriad dimensions of the business world.
Secondly, to share with you the changes I have observed for the past fifty + years and to suggest the likelihood of ever more dramatic changes that each of you will confront. You are part of a generation that has already seen rapid change. One only has to think iPod, iPhone and now iPad as witness to the rapidly changing environment in communications. Just a couple of years ago, “tweet” was the sound a bird made – but not now! This pace of change requires a solid grounding not only in your education but, more importantly, on your understanding of the world around you.

Thirdly, to give you some insight into facets of my experiences. For example, like many, I have been fascinated with the rise of China. Paul Kennedy, a historian from Yale, wrote his most important book, “The Rise and Fall of the Great Powers” in 1987, covering the period from the sixteenth to the twentieth century. At that time, Japan was perceived as the economic threat to the U.S. It was taking increasing market share in autos and electronics and was even picking off real estate trophies such as Rockefeller Center in New York, and Pebble Beach Golf Course in California. Kennedy looked to China because of its potential as a coming power in the twenty-first century. But when the book was written, China was yet to emerge as an economic power.

The trip to China that Susan and I took some four years ago was an absolute eye opener. We’ve seen many, many parts of the world – from Europe to Asia – but nothing compared to the astonishing achievements that China has made in these past twenty years. In its cities, its infrastructure and the growth of its economy – mind boggling!
Over these past years, we’ve discussed many topics, among them:

- The changing social contract that shapes our lives – from the security of the post World War II era with its pension and health insurance provisions to a world of 401(k) plans where the retirement risk has been passed from the employer to the employee and the rapidly increasing cost of medical insurance;
- The role of anti-dumping practices and how they affect international trade and competition in U.S. markets;
- The melt-down in 2008 of the western world’s financial markets – what brought it about, why it happened, and what may be the likely outcome.

Michigan has played a very important part in my life. I can recall vividly my freshman orientation. One of the early sessions was held in Hill Auditorium. The whole class was there – about 3,000 students. My high school class was 45. And they came from all over the country – indeed the world! Quite a contrast to the insular world of a central Michigan farming community of 1,000 where my father was a Baptist minister. But the thing that most impressed me was when the speaker pointed out the buildings on campus that were gifts from alumni and friends – the Law Quad, Burton Tower, the Rackham building, Hill Auditorium, Michigan Union and Michigan League, among many others – making Michigan unique among the nation’s public universities. That has stuck with me these 50+ years later and has become part of my life. That’s why toward the end of my business career when I cashed in some of my chips, one of my early gifts was to
fund the Professorship in International Economics which, from its inception, has been held by Professor Deardorff. Then in recognition of the life and writing talents of my wife, Gayle, who died in 1996, I funded the creation of the Gayle Morris Sweetland Center for Writing. Over 100,000 students have benefitted from one-on-one counseling and help from the faculty of the Center and its Peer Tutors. I have been told by hundreds of students how important that part of Michigan is to them. So I hope you keep that in mind when you leave this special place. Michigan recently ranked #12 nationally in its peer ranking, but 105 in its alumni giving rank. As the state of Michigan reduces its funding for higher education – in current but especially inflation-adjusted dollars – the responsibility for keeping Michigan at the top of the public universities and competitive with the best of the privates will fall on us who have benefited from the richness of this school.

My first two and a half years at Michigan could not be described, in any way, as academically successful. Part of this was my immaturity – only barely 17 when I enrolled. But another part was conflicting goals between what my father thought my goals should be and my uncertainty about what I really wanted. As a result, after the first semester of my junior year I dropped out.

Dropping out in early ’53 meant a sure draft into the army – this was during the Korean War – but it turned out for the best. After basic training I applied for and was accepted into officer’s school. On about the same day I would have graduated from Michigan, I was commissioned a 2nd Lieutenant in the Corps of Engineers at Fort Belvoir, Virginia.
I was fortunate in my assignments over the next three years – and especially fortunate in serving under excellent mentors. Two and a half years were spent on Guam rebuilding a World War II airbase to Strategic Air Command specifications – specifically for the B-52 bomber. As Commanding Officer of Company “C”, 809th Engineer Battalion (Heavy Construction), I was responsible for 250 men plus a significant portion of the reconstruction of the airbase – all at age 22. While on Guam, I took my first courses in Economics – 101 and 102 – at the Territorial College of Guam, sponsored by Ohio State University. After having sampled a good deal of the LS&A curriculum during my first two and a half years, I finally found a subject I really liked and I was determined to return to Michigan and complete my degree in Economics.

While at Michigan, I took the undergraduate class in International Economics – it wasn’t too interesting – a lot of discussion of exchange rates, items likely to be subject to international trade (cement was the example of what was not likely to be traded internationally – more on that later). In fact, there was limited international trade in the 50’s. Japan, China and Europe were still in disarray from World War II and the United States was in a strong post war domestic recovery.

My area of concentration was industrial organization, particularly anti-trust. I wrote my master’s thesis on the pricing practices of the Midwest cement industry in 1958 compared to those the U.S. Supreme Court had found illegal in 1948 – the so called Basing-Point Decision. Because I worked through my last
years of undergraduate and graduate school for a company that was a major buyer of cement as well as other building materials, my curiosity was aroused when, during the severe recession of 1957-58 that hit Michigan hard, I noticed the price of cement from all companies rose by the same amount while prices of other building materials fell. The president of the company supported my request to do original research by interviewing the senior executives of the major cement suppliers. Professor Shorey Peterson, my mentor, concurred with this idea and it turned out to be an interesting, indeed fascinating, project, earning an “A” from Shorey Peterson and a job offer from one of the companies, Peerless Cement in Detroit.

As you may find, not every job will turn out to be the right one. This one was not. An old company, going nowhere. But while there, I met Jim Giles, President of our eastern affiliate – and selected to be the next President of the parent company, American Cement Corporation. When I decided to leave Peerless, Jim asked me to become his Assistant. In those days, Assistant to the President was the most sought after title for a young ambitious person. To be the Assistant to a Baker Scholar from Harvard Business School was icing on the cake.

What I could not have contemplated were the interesting and demanding challenges I would face in my first ten years after graduating from Michigan. They would result in going from the number two person in a two-person divisional economic research office to being elected Executive Vice President, Chief Operating Officer and a member of the Board of Directors of the parent corporation, a major New York stock exchange company.
One of the experiences that shaped that journey occurred only months into my employment when I was selected to represent Peerless on a special corporate committee headed by a senior vice president to analyze and recommend a course of action on the highly debated subject of vertical integration; i.e. should cement companies own their largest customers – the ready mix concrete companies. Four members of this committee represented the three other operating companies and the corporate staff. All of the members except me were recent graduates of Harvard Business School.

We met over a number of months at corporate headquarters in Philadelphia. I found that my academic grounding in industrial organization plus my experience in selling ready-mix concrete during my time at Michigan placed me in a favorable position compared to the case study method at Harvard. We had a great time together, presented a decent analysis and a prospective path; and, perhaps more importantly, created long-lasting friendships.

Added to my role as Assistant to the President was the additional responsibility of Director of Corporate Development. One early assignment was to evaluate and recommend the feasibility of constructing new cement plants in developing countries under President Kennedy’s program to encourage American industry to invest abroad. American was the only cement company to take advantage of this opportunity. My team investigated three opportunities with extensive on-site visits to Pakistan, Greece and Brazil. Our recommendation was
to build a new plant at Patras, Greece in a joint venture with Titan, a Greek cement company. That plant is still operating today, some 40 years later.

As I progressed in positions at the corporate staff level and later as President of Peerless, other challenges arose such as responding to a Federal Trade Commission charge of an illegal acquisition under Section 7 of the FTC Act, settling the first strike in over 30 years at Peerless Cement in Detroit and accepting the invitation of Mayor Cavanagh and the New Detroit Coalition to become Deputy Mayor of Detroit in 1968 following the devastating riots in the summer of 1967.

None of this prepared me for what I would encounter when I left the Mayor’s office; not to return as President of Peerless in Detroit but to become Executive Vice President and Chief Operating Officer and a member of the Board of Directors of the parent company, American Cement in Los Angeles. The corporation was experiencing serious problems, complicated by two recent unwise acquisitions. The unease amongst the staff and the Board and the rapidly declining financial condition prompted an effort by some board members to oust the President. An internal proxy fight was threatened by the two largest shareholder groups. I became a central pawn in this contest to determine who would control the company by being proposed as the new President, acceptable to all factions. However, I declined the overture because I could not bring myself to be part of the process that deposed my mentor but also because I could not trust the agenda nor the longer term objectives of the “other” side. I resigned. Having sold our home in Ann Arbor where we lived when I headed Peerless and
then served as Deputy Mayor, and having bought a home in Los Angeles, we
decided, jobless or not, to make the move to Los Angeles.

My next role was as President of a Los Angeles/New York based major
money management firm – mutual funds and institutional management (pension
funds) with a newly acquired real estate development/investment capability. The
challenges came fast and furious. In my first month – January – the Security and
Exchange Commission halted sales and redemptions of our largest equity fund –
Enterprise, the first ever billion dollar fund. None of this involved the fault of the
company but rather the ineptness of the funds transfer agent, a major bank in
Boston. However, the financial impact was major and the negotiations with the
SEC long and arduous. Sales resumed in September.

It was in this role that I also learned how to deal with European
government agencies, which began requiring funds marketed in Europe to comply
with recently adopted rules similar to those instituted in the United States during
the 30’s – especially the Investment Act of 1940 which regulates mutual funds
and requires extensive disclosure. Germany was the largest market for us and the
most demanding in its requirements. We were the first company to have all of
our funds brought into compliance with these new regulations.

After fourteen years of corporate life, rising to the top of two disparate
corporations, I decided that I didn’t want to work in the public sector for others;
I wanted to work for myself.
I teamed up with a partner to start a consulting company that would work with institutional lenders on problem loans. One of our early assignments on behalf of a large eastern bank put us back into the cement business but in a far different way – not as a producer but as an importer. An old-line northeastern cement company had been bought by investors who really didn’t know very much about the cement industry. But they did know enough to build a nice import operation in Florida. In the mid 70’s they ran out of money and the bank stepped in. We recommended that the bank separate the two operations and let us manage the import operation. Over time the port lease and labor contracts were renegotiated, far more favorable international supply and shipping contracts were entered into and the size of the facility was doubled. A top marketing and operating organization was built and, in time, we acquired 100% of the equity.

Now, when we took over the Florida operation, neither my partner nor I knew little about the international trading of cement. But the purpose of schools like Harvard and Michigan is not to train you for a “job” but to give you a set of analytical skills that can serve any number of situations. It didn’t take long to sort out what made an international cement import operation work. Since we lived blocks away from each other in Los Angeles, we decided to start a similar company in Southern California. Marshalling a strong partner, Phillip Brothers, the largest commodity trading company in the world, together with the support of the Port of Long Beach, we launched Pacific Coast Cement Corporation from a clean sheet of paper.
Between National Cement in Florida and Pacific Coast Cement in California, we became the largest cement importers into the United States – and also the most profitable. Importing from Europe (Spain & France) and Asia (Japan, Korea & Australia), we had the top companies in the world for suppliers; the most favorable shipping contracts; the most efficient facilities; the largest markets – Southern California and Florida; and well known in the industry, the best operating and marketing organizations. In the late 1980’s as a result of the Plaza Accord, which dramatically changed the value of the dollar, international markets changed considerably - currencies, shipping rates, supplies, demand, etc. We worked very diligently and quietly to sell both companies at the top of the market to two of the largest cement companies in the world. The sales were completed in 1990.

The last chapter – so far – in my business career was launched in 1985 when we acquired a small manufacturing company to solve a personal holding company problem. The company, Forbes Industries, has become a major international supplier of restaurant and hotel equipment to leading hotels around the world. We have as our customers all the top names – Four Seasons, Ritz Carlton, Marriott, Hyatt, Sheraton, Hilton, and Westin, among others – all over the world. Every year we ship to over fifty countries. China, Japan, Europe, Russia, the Middle East, Southeast Asia, Africa and Latin America – all purchase Forbes products. Generally, more than 25% of our sales are to international markets and in 2008, we created Forbes Asia, a subsidiary in Singapore with responsibilities for all of Asia from the Middle East to Korea. In time, we may manufacture some product in Asia.
The most certain thing that you will face, as graduates, is the certainty of change and unpredictability. The world will not continue to be like it is today. In fact, it will be remarkably different. And you will not be able to anticipate all that you will face. In this context, it might be interesting to imagine what it would have been like for me to have had someone who graduated from Michigan fifty years prior address my class in my junior or senior year and talk about what the world was like in 1907 when he finished his degree in economics and thought about what the future might hold for him and his classmates.

Upon graduation, let’s call him “Old John”, faced a world that was largely optimistic. Europe had not had a major war for almost forty years and talk was about the increasing level of trade. Indeed, war was thought unlikely since it would be disruptive to the bonds of trade and finance. The entire world was in the largest international trade era ever.

Great technical discoveries were occurring. Electricity was finding its way into cities with the new “Edison” light bulb all the rage. Autos were starting to grow exponentially – Henry Ford would introduce his “new” Model T in 1908 and begin production at a new plant in Highland Park, Michigan. In fact, Detroit was becoming known as the center of the auto industry and would likely become the “hottest” city in America.

Andrew Carnegie had just sold his steel company to form U.S. Steel for $120 billion (in current dollars) in gold backed bonds to make him the richest man
in the world. The financial panics that gripped the country in the late 1800’s and in 1907 were quieted by J.P. Morgan and talk about a central bank for the U.S. was beginning.

In short, it was a time of great hope and great change. A popular president, Theodore Roosevelt, had broken the trusts that strangled economic activity and expanded our influence in the Caribbean and Pacific by defeating Spain and occupying Cuba – thereby protecting our Atlantic gateway to the planned Panama Canal by acquiring rights to the naval base at Guantanamo Bay in perpetuity. He also began the process of establishing our national parks. All seemed well.

Then, within the next 10 years, this optimism crashed. The bloodiest of all European wars broke out in 1914 over an assassination in the Balkans and within months all of Europe was involved. In the end, some sixteen million died with millions more injured. Trench warfare, mustard gas, airplanes and tanks made their way into the battlefield in what was called The Great War. In 1917 the United States reluctantly entered the war on the side of our allies, Britain and France. In November 1918 an armistice was signed but the conflict was only quieted for 20 years.

The resumption of warfare in 1939 had to await the greatest economic collapse the modern world has ever seen. The Great Depression, which began in 1929 and would not be overcome for 10 years, impacted the western world – the U.S., Canada and Europe. Unemployment soared – up to 25% in the U.S., homes and farms were foreclosed, businesses declared bankruptcy and homelessness
was everywhere. From the tenements in New York to the factories in Michigan to the “dust bowl” in the Midwest to the Central Valley in California – there was little hope.

What caused the Great Depression and what ended it has led to endless speculation. But there is little doubt that the buildup of arms starting in Germany in the mid 1930’s, then to England & France and finally to the U.S. in the late 1930’s, contributed mightily to the rise in employment, wages and prosperity.

This, of course, was the opening act of World War II much more deadly and truly worldwide than what we now call World War I. It would involve not just continental Europe, but Russia, Japan, China, Southeast Asia and North Africa. The scope of armament, ships, planes, tanks and artillery rockets was breathtaking – beyond imagination compared with any past war. It was culminated by the most ferocious weapon known to mankind – the Atomic Bomb – detonated over Japan in August 1945, thereby ending this war. Total casualties, military and civilian, totaled over 70 million – of which, 40-50 million were civilians. Of these civilian casualties, some 8 million died in the most extreme example of man’s inhumanity to man in the execution centers and slave labor camps of Nazi Germany – the overwhelming number were Jews.

Following the war, the United States entered a period of great prosperity, rapidly repaying the costs of such a war and providing for its people a stable and growing sense of well-being. The period from 1945 to the 1970’s was probably the most equalitarian of any period in U.S. history.
Change, at an increasingly rapid pace, was embedded in my time after graduate school. Among the most dramatic were:

- The Xerox copier – the Guttenberg press of the 1960’s. It made possible the communication to few or hundreds of people at the press of a button – a far cry from the “carbon copy” or stencil means then available.
- Credit cards – changed the ways people and businesses handled their money and paid their bills. It also changed consumer credit and lending practices.
- Telephone deregulation – allowed freedom to create the 800 number, the facsimile and lower rates.
- Computers – changed information transfer and capabilities at a level never imagined.
- The Internet – a revolution in knowledge transfer and communication. The events of last week in Cairo were evidence of what is possible.

There are many, many others – you know as well or better than me. But I’d like to move up to the challenges and changes that await you.

The threat of war continued to hang over the world. But the “Cold War” between the bipolar powers, the U.S. and the U.S.S.R., never became “hot” and finally ended in 1989.
The question that looms over your generation probably more than usual is, in short, what kind of world will you be facing over the coming decades? It’s more complicated with fewer certainties and even greater challenges than recent the past. At its heart, the question is often reduced to, “Will America remain number one in the world and will the dollar continue as the world’s leading currency?”

Let’s look at the “economic world” as it exists today. Two large groupings make up most of the world’s population and wealth – Asia and the Western World (Europe and North America). Between them, they hold two-thirds of the world’s population and three-fourths of its wealth (attachment).

But these two worlds are vastly different. Asia, with a population of 3.5 billion, has 52% of the world’s population but only 21% of its wealth. The Western World has less than 1 billion (939 million), or 14% of the world’s population, but holds 55% of its wealth. Per capita income for Asia is $3,735; for the western world, $35,447. The two leading nations in each sector mirror this difference; China at $3,240 and the U.S. at $45,307.

This “snapshot” of our world is certain to change; if the past is any guide, it is likely to change dramatically. Some changes will be felt in your lifetime; others will require more time. To put these potential changes in historical perspective, let your minds float back in time – seemingly a long time in some ways but short in others. I’m asking you to envision the world 600 years ago – the 15th century or 1400.
In 1400, what we are calling the Western World was either in shambles (Europe) or did not exist economically (North America). The glories of Athens and Rome were far in the past. 900 years after the fall of the Roman Empire, Europe was a primitive forest, controlled by marauding bands of Huns, Goths and other assorted barbarians. There were essentially no governing institutions, laws or even roads – the only ones still passable were built by the Roman Empire. Most wealth was consumed by warfare or by the Church.

On the other side of the world, China was thriving. Angus Maddison, the Cambridge-educated, world-leading economic historian, has estimated that China’s GDP then represented 30% of the world’s total. Together with its neighbors with whom it maintained excellent trade and diplomatic relations some 50% of the world’s GDP was in Southeast Asia. China had a functioning central government, an efficient bureaucracy and a reasonably stable transfer of power to successive regimes. Some of China’s wealth, talent and technology had been evident for centuries with its invention of gunpowder, silk weaving, paper, its art and other commodities. And it had an effective language system.

But these worlds, western and Asia, were not destined to continue in their 1400 A.D. status. Over the next four centuries, Europe was changed by, successively, the Renaissance, the Protestant Reformation and the Enlightenment. These three social movements dramatically shaped Europe and by 1800 it was ready to embark on a radically different course.
The Renaissance, which began in Italy around 1400, is primarily remembered for its promotion and acceptance of the Arts – maybe because of its close association with Florence. However, as Lisa Jardine so aptly demonstrated in her book, *Worldly Goods*, it also led to a major step forward in economic terms. It was the first burst of consumerism in a dull and dying Europe. The desire for books which had to be hand copied, one at a time, led Johannes Gutenberg to develop his movable-type printing press in 1450. The subsequent demand for printed material created, also as noted by Lisa Jardine, the first industry to require large amounts of capital – the manufacturing and distribution of paper.

Gutenberg’s press led to an explosion of universities throughout Europe. Prior to the printed word, most learning was by direct vocal transmission, resulting in small learning centers created in the 12th & 13th centuries in Bologna, Oxford, Cambridge, Heidelberg and Paris. The expansion of these universities and the start of others awaited the Renaissance and Gutenberg’s press and printed material in the 15th century. In the period between the late 1400’s and the early 1500’s, universities were established in Scotland (Glasgow, Edinburgh and St. Andrews), Ireland (Trinity), Sweden (Uppsala), Italy (Genoa), Germany (Munich, Wittenberg and Freiburg) and Spain (Valencia and Santiago).

This expansion of learning, made possible through the rapid transmission of knowledge, led to the development of Humanism that altered the course of both learning and civilization and, in turn, led to the social movements that influenced the Reformation, Rationalization and the Enlightenment. The universities also
unleashed scientific knowledge, which together with these changes in the social arenas, created the environment for the further change.

The Reformation was one of the seminal events that changed Europe. Since this is a class in economics, we will leave the theological arguments to others. The Reformation challenged the political and economic landscape of Europe in very specific ways.

Political, in that it changed the influence and the control, of the Church’s hold over the political structure. By Church, I mean the Roman Catholic Church, which dominated all of Europe. The countries of Northern Europe – England, Scotland, the Scandinavian countries, northern Germany and Holland – freed themselves from domination from Rome; a freedom directly related to the Reformation.

Economic, because the Reformation challenged existing thought about the two central factors in economic development – capital and labor. Calvin, more than Luther, led the way here. Pre-reformation theology held that all interest was usury – a difficult barrier to banking and the aggregation of capital for investment. Labor’s value was considered only in terms of its use for the Church – for the Glory of God. Calvin’s insight that “vocation becomes avocation” placed a value on all work not just that devoted toward heavenly purposes. This concept honored the work of a laborer as well as a banker and capital as well as labor. Calvin was French but Geneva, Switzerland was his intellectual base. It is not a
coincidence that Switzerland became – and continues to be – a central cog in the world banking system.

Contributing in large measure to the success of the Reformation was the increased level of literacy among the people of Europe, attributed by many to the translation of the Bible into common languages. The translation into German by Martin Luther established High German as the literary language throughout Germany. Up until then, it had been only translated into 4th century Latin. The English translations were led by William Tyndale from Oxford and became the foundation of the King James Version in 1611. The Bible became the most widely read book of that era. Literacy rates soared in these countries as well as others, such as Holland.

The intellectual changes that prompted the Renaissance and the Reformation changed European history – but it was not easy! Bitter battles consumed Europe. The thirty year war that concluded in 1648 with the Peace of Westphalia established the centrality of the State as the unit of government and was thought – and hoped – to be the end of conflicts. But Europe continued to be riled by wars between England and Spain, Spain and Holland, and Napoleon against the world with targets in Egypt, Venice, Russia before finally meeting his “waterloo” in 1821.

Amongst this turmoil, the transformation that would change Europe in ways never imagined was beginning to brew. Like success, it could claim many fathers but one person in my mind stands out.
Scotland in the mid 1700’s was a most interesting place. In that cold, distant land, there was an intellectual fire, fanned by the Universities of Glasgow, Edinburgh and St. Andrews, and helped along by an active protestant faith based on Calvin but brought to force in Scotland by John Knox.

Of the many intellectual forces in Scotland, no one would match Adam Smith in influence over the coming centuries. A moral philosopher, his treaty on economics published in 1776, the *Wealth of Nations*, altered the economic landscape of Scotland, England, Europe and ultimately the world. It was perhaps the key spark that began the Industrial Revolution. No other economic text has had the immediate and lasting impact of that book.

The Industrial Revolution dramatically changed the path of past centuries. It made Europe the richest and most powerful area in the world, diminished the wealth of Asia and created, albeit unknowingly, the world’s super power – the United States. Together with North American 55% of the world’s wealth would be held by its constituent countries.

On the other side of the world, the opposite was happening. China began its long descent in the early 1800’s and would not be an economic factor for the next 300 years. The decline encompassed governmental, social and economic failure; each hastening the end of China’s isolation. Currency imbalances led England to sell large amounts of India-produced opium within China to gain silver.
to exchange for the increasing quantities of Chinese tea consumed in England. This practice violated the trade laws of China and led to the Opium War in 1839 in which the British navy overpowered the more primitive Chinese fleet. The cost of defeat included the transfer of Hong Kong to England as well as access to trade through five ports and a large indemnity. France, Germany, Russia and Japan forced China to grant them similar trading privileges. The end of China’s protection from outside influences weakened the central government and led to regional friction throughout the country.

World War II and its aftermath further weakened China and diminished its economy. It was the first country to experience invasion in that most devastating war when Japan invaded China in 1938. During the war, Japanese forces controlled China, its ports and its interiors. After victory was declared by the allies with the surrender of Germany in May and Japan in August of 1945, Europe and Japan began the long and arduous process of rebuilding the economic structure that was devastated by the war. The United States gave substantial economic help to its conquered foes through the Marshall Plan for Europe and similar help to Japan. Part of this stemmed from the natural sense of generosity of America; part from the need for strong allies against an increasingly strident USSR.

In China, the opposite was taking place. The end of World War II in August of 1945 changed the fight the two factions within China had been directing toward Japan towards each other. The Chinese Nationalists, led by Chiang Kai-shek, had been the United States ally during the war and that support was
continued afterward. However, Mao Zedong, the leader of the Communist party, had support from a wide swath of the Chinese people. The Nationalists were seen within China as a corrupt force led by a corrupt leader. This struggle continued until 1949 when the Peoples Republic of China, under Mao, gained control of all of China. Chiang Kai-shek and the remnants of his Nationalist Army retreated to Taiwan. Differences still remain between these “two Chinas” but have diminished over the years.

Under Mao, little economic progress was made. Indeed, China continued its long decline. His Great Leap Forward and the Cultural Revolution resulted in a confused and conflicted society and a damaged economy. Millions of Chinese died as a direct result of such programs. His death in 1976 was probably the low point in China’s economy and its relationship with the Western World.

Deng Xiaoping became the head of the government in 1978 following two years of unrest within China. While elderly, he was a transformational leader. His decision in 1989 to allow capitalist practices in an area in Southern China created a wave that would, in time, sweep across China and within thirty years place it second only to the United States in the size of its economy with a rate of growth likely to make it the world’s largest economy by mid-century. China is already the world’s largest manufacturer, exporter and potential problem.

But China is not alone. Like the 15th century, China’s growth has spurred its neighbors as well. Asia, together with fast-growing India, will result in the largest contiguous economy in the world.
The rapid growth of the Asian economies and the slower growth and aging population of the Western World creates, in the words of Martin Wolf, the Financial Times economist, a “great conversion”. Productivity and GDP per head between the two economic worlds will come closer together – almost certainly more than they have ever been with neither world collapsing. While this means that China with 1.3 billion people and India with 1.2 will both likely pass the United States in terms of national gross product, the GDP per head will take much longer. But keep in mind that the U.S. is not the largest in GDP per person today. Yet our living standards are the envy of the world. Number one may be a false measurement.

The future role of the dollar must also be put into perspective. In the course of economic history dating back to the 15\textsuperscript{th} century, there have been six countries whose currency was recognized as the world’s reserve currency – one that all others could depend upon to finance trade. The progression closely tracks economic leadership: Portugal in the 1500’s, Spain in the 1600’s, Holland in the 1700’s, France briefly in the late 1700’s/early 1800’s, the United Kingdom in the 1800’s to 1920 and the U.S. from 1920 to the present.

The rise of the U.S. in international prestige and the process that led to the replacement of sterling by the dollar was ably set out in last year’s book of the year by the Financial Times – \textit{Lords of Finance}. The Great War exhausted the treasuries (and gold reserves) of the three principal European banks – England,
France and Germany. The only country that could bring hope and order was the United States. Why?!

The U.S. was the world’s largest economy and a major factor in international trade. It was regarded as a “fair” player in international diplomatic circles by the leadership of President Theodore Roosevelt in negotiating the end of the Russo-Japanese war in 1905 and by its entry into the Great War in 1917 which helped bring about an armistice within a year. It also had a central bank, albeit only recently created in 1913 after years of debate. The head of the bank was an internationally respected banker, Benjamin Strong. The U.S. had large and transparent commercial banks, skilled in international transactions. Lastly, it had J.P. Morgan, the single most respected banker in the world, whose firm had been acting as a central bank through the panics that marked the U.S. economy in the first decade of the 1900’s. He also had recruited and trained Ben Strong and supported him to be the first head of the Federal Reserve.

There is no other country in the world today that has these qualities. While China – and others – makes noise about the Yuan replacing the dollar, China is far from meeting even the minimum criteria for such a role. It will take years for China to develop the institutions and the people as well as the confidence of the world for such a change to happen. That it may happen, sometime in the future, is a strong probability.

While the future will be shaped by the two major powers, the U.S. and China, they will not be alone. Fast-growing economies, such as those of India,
Brazil, Turkey and others, will also influence the future. But no nation has a path that is without problems.

For China and the U.S. the problems are different but in some ways similar. We’ve discussed China’s barriers to growth in previous classes. They include political and business corruption, pollution of air and water, governmental structure (i.e. cities and provinces vs. national government), restrictions on personal freedom, and an aging population with future declines because of the Mao policy of “one child”. Beyond these, a major question is how long China can base its economic expansion on a mercantilist policy where growth depends largely on exports, requiring the world – especially the United States – to absorb its exports while China adds to its financial resources.

There is little you can do to have any impact on China’s future. However, the task of your generation will be to do all within your power to influence and shape America’s future. The past generation has left you with a national economy burdened by debt at the federal, state and individual levels, a sorry history of questionable wars, a government more divided and less able to compromise than any since the early decades of the last century and a reduced standing in worldwide esteem. To paraphrase Bismarck’s famous remark, all of these powers are traveling on “the stream of time”, which they can “neither create nor direct”, but upon which they can “steer with more or less skill and experience”. How the United States emerges from this voyage depends upon the skills of its peoples and its government. My hope is that Michigan’s graduates can provide that skill through its contributions to the public good.
Our national shortcomings and their possible solutions are the subject of this year’s Financial Times/Goldman Sachs book of the year, *Fault Lines*, by Professor Raghuram Rajan, an economist at the Booth School, University of Chicago. I urge you to read it.

Fault lines in our economy are areas that place us at risk for major economic shocks like those recently experienced in the 2008-09 collapse. Let me just hit the highlights of our economic and political fault lines. For those of you not familiar with geological terms, fault lines are created when the tectonic plates on which the earth’s crust rests collide. Movement along these plates has occurred over eons, shaping earth’s features such as the mountain ranges of India (the Himalayas), Europe (the Alps) and the United States (the Rockies). Living in California, we are keenly aware of the San Andreas Fault which caused the San Francisco earthquake of 1906 and many subsequent lesser quakes. The massive tsunami that caused the great loss of lives and property in Indonesia a few years ago was created by such a tectonic plate movement.

The first fault line that Rajan highlights is income inequality. Its effects reverberate throughout the economy. Wealth is increasingly concentrating towards the top. In 1976 the top 1% of households accounted for 9% of the total income in the U.S. In 2007, that percentage grew to over 23%. Of every dollar of real income growth generated over those 31 years, 58 cents went to the top 1%. Income disparity in this country has risen to the levels of the late 19th and early
20th centuries – the days of the robber barons, monopolistic trusts, bank panics and finally the Great Depression.

Its effects are felt across the entire national spectrum, including political friction. Professor Poole of the University of California-San Diego has charted the degree of political polarization in the U.S. Congress since the 1870’s as measured by the variances in Republic and Democratic votes. Polarization was high and constant between 1870 and 1930. Then it dropped dramatically and stayed low until the 1970’s. It has risen steadily and now exceeds the levels of the late 19th and early 20th centuries. He has also compared political polarization with income disparity and has found a very close correlation.

Political polarization directly affects our economy. Economics was once called political economics because the two are closely related in a national economy where over 25% of GNP is directly related to governmental spending and the balance – consumer spending, residential and industrial investment and exports/imports – heavily influenced by governmental policy. Without cooperation between the two parties, the economic future becomes clouded. This is amply demonstrated by the response to the recently released report on the financial crisis and the sharply different reactions to financial regulation. Reform of our healthcare, immigration, environmental, educational and national debt policies, among others, await the return of political comity.

Income disparity affects all parts of our national well-being. Education and healthcare are two important areas where the rich and middle class have huge
advantages over the working poor and the 13% of Americans that are living below the poverty level. Education is, more than ever, the key to good paying jobs and advancement. Healthcare in the United States – alone among the world’s industrially developed countries – is dependent in most cases on employment. When employment is interrupted for whatever reason, medical insurance ends. Rates of many life-threatening diseases such as diabetes tend to be higher among the poor. The lack of a national healthcare policy that covers all Americans places a huge strain on our states, our hospitals and the entire medical system. The solutions are inevitably tied to politics and any near term resolution seems unlikely.

Education is a significant aspect of income inequality. Higher-educated people contribute more to a modern economy and earn more. Today’s college graduates earn substantially more than high school graduates. High school dropouts earn even less. Yet today, a majority of the lower income classes do not possess the education or the skills that a modern economy demands. Our universities remain the envy of the world but our primary and secondary schools, especially in the major urban areas, are not producing college-prepared students. This growing gap within our society and with many parts of the world threatens our future by lowering our economic growth and increasing the cost of caring for the uneducated and unemployable.

The lack of an adequate national safety net for periodic unemployment caused by economic downturn is another fault line. Studies have shown that the recovery of job losses has been slower in recent downturns then previously
experienced. The loss of income – particularly among those in lower income percentiles – directly affects the largest segment of our economy – consumer spending. Europe, with a far broader income continuation policy, can weather such turndowns more handily.

Other fault lines include the import/export problems exemplified by the mercantilist policies of China, Japan and Germany and their effect on the U.S. economy – its industry and government.

Rajan points out other fault lines but I will conclude with financial regulation. To me, the most revealing statement that came out of the hearings on the reasons behind the recent financial collapse was that of Alan Greenspan, the former head of the Federal Reserve System. Testifying before a congressional committee, he said he was “shocked” by the collapse because he always thought that the management and boards of directors would do a better job of protecting the investor than governmental regulators could ever do. Greenspan, among many, many others, was a champion of de-regulation. Much of it was good but it is important to keep Adam Smith’s words in mind when thinking about the moral underpinnings of our society and the need for oversight. The creator of the term “invisible hand” that is often quoted as a reason for keeping the government out of business also wrote, “People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices”. Adam Smith knew something about fault lines.
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