# MAKENA STRATEGY INSIGHTS – March 31, 2016

A Job or a Career: How Bifurcation of Incomes in the US May Lead to Lower Growth

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## Portfolio Strategy & Macroeconomic Outlook

### *A Rising Tide Does Not Always Lift All Boats*

During our Annual Investor Conference in early May, we had the pleasure of hosting Professor Larry Sabato, a well-known commentator and political analyst from the University of Virginia. A key topic for Professor Sabato was trying to understand the type of economic environment in the US that has driven candidates such as Donald Trump or Bernie Sanders to generate as much support as they have received. Not surprisingly to us, rising economic inequality was one of the clear drivers. Professor Sabato noted that the post-Global Financial Crisis recovery has not benefited the population of the United States equally, with the middle class bearing the brunt. In other words, a rising tide has not lifted all boats.

We are not political scientists and as such, we will not discuss the various topics of this campaign season. Rather, using an analytical and objective approach, we will offer some facts on the changing nature of employment and income in the United States and discuss some consequences of these trends.

Before digging in, it is fitting to review our Q4 2013 letter where we previously covered this topic, and consider whether our thinking was accurate:

> "We will show that the US is unlikely to face significant broad-based wage pressures in the near- to mid-term. Furthermore, with many currencies weakening against the USD, traded goods, which make up about 1/3 of CPI, will be exerting a deflationary effect on the US economy. This implies that measured inflation will most likely remain subdued in the near-term. We will also show that a divergent set of conditions for high-earners versus low-earners creates a number of issues, most importantly implying lower trend growth going forward. The divergence between the two segments of the population also helps explain why we see seemingly contradictory macro data: how can unemployment fall while real disposable household income remains unchanged? This is yet another headwind to growth in addition to increasing rates, increasing taxation and increasing regulation – all reasons why we believe long-term potential growth for the US will remain below the historic potential growth trend of 2.75-3%. Even as the outlook for 2014 US growth is relatively bright at ~3%, it is important to remember (as detailed in previous materials) that in order to "catch-up" to historic trend growth, we would need sustained growth above 3.2% for at least four consecutive years[1].
> What if we were to trim the potential growth rate down to 2.25%, a modest 50 basis point reduction, factoring in the headwinds to growth – increasing taxation, increasing regulation, increasing age of the population, increasing entitlements, and so forth? The answer would be lower returns on capital in general, less investment opportunities, continued subdued inflation, and bond yields below the CBO forecasts."

We now turn to our update on employment, income and inequality in the United States.

### *A Job or a Career*

As job creation continues, it is important to understand the quality of those jobs in terms of the income they provide. The following analysis will shed some light on why real disposable US household income growth has been subdued for nearly a decade, and why it seems likely that the trend will continue.

Figure 1 below shows unemployment by educational achievement. Most of the rise in unemployment predictably affected those with high school degrees or less. College graduate unemployment has since fallen back to levels where we could see modest wage pressures develop in the future. Similarly, unemployment rates amongst less educated segments of the labor force have made notable progress in returning to long-term levels. Unfortunately, headline unemployment numbers don't capture what is happening to incomes, and this is where the story gets interesting.

[1] Outside of the dot-come bubble, the Reagan era and the Carter stimulus, there have been no such extended growth periods since the 60's

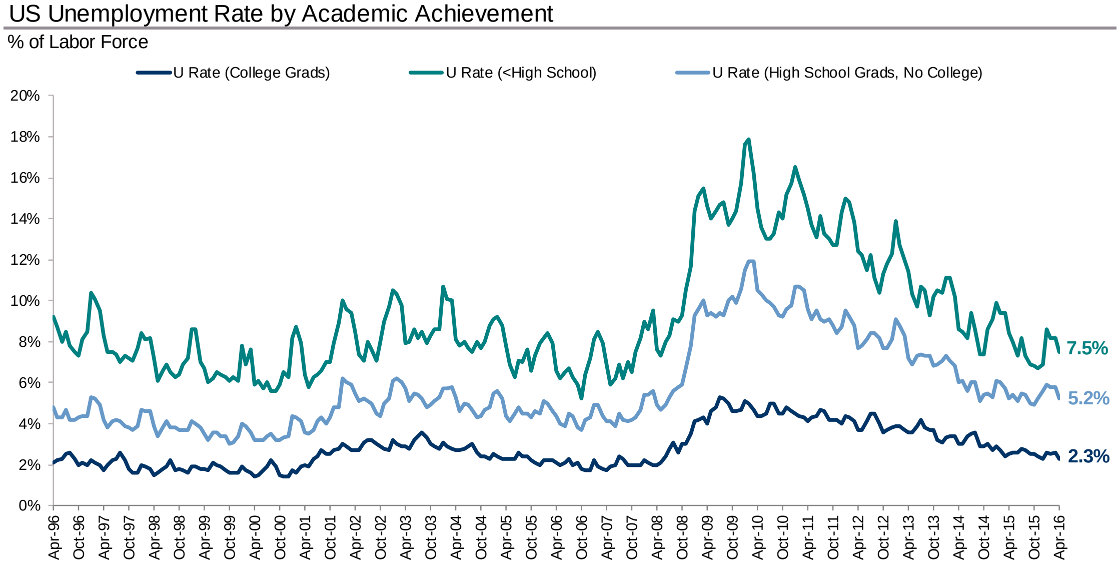



**Figure 1: Unemployment by Academic Achievement**

A large proportion of the new jobs being created are low-wage jobs. Perhaps this is not surprising since most of the unemployed have relatively lower skills. However, it is important to think of the change in incomes that these workers have suffered. Consider the former construction worker earning $50,000 a year building homes now working a few hours a week at a home improvement store for $10 an hour or less – technically that person is no longer unemployed, even though from an economic standpoint, that person is but a shadow of their former economic self.

Figure 2 below clearly illustrates that the employment share of bottom quartile income occupations have increased, while occupations in the second and third quartile of income are shrinking. Over 2/3 of jobs created since the recession are bottom-quartile income occupations, with net losses coming out of the second and third quartiles. Indeed, an update of a previous study by the National Employment Law Project finds that nearly 44% of net employment growth since the recession has been in the lowest income job categories (i.e. in the low end of the bottom quartile), e.g. food preparation, retail sales, freight, home-care aides and so on[2].

[2] The Low-Wage Recovery and Growing Inequality, NELP, April 2014

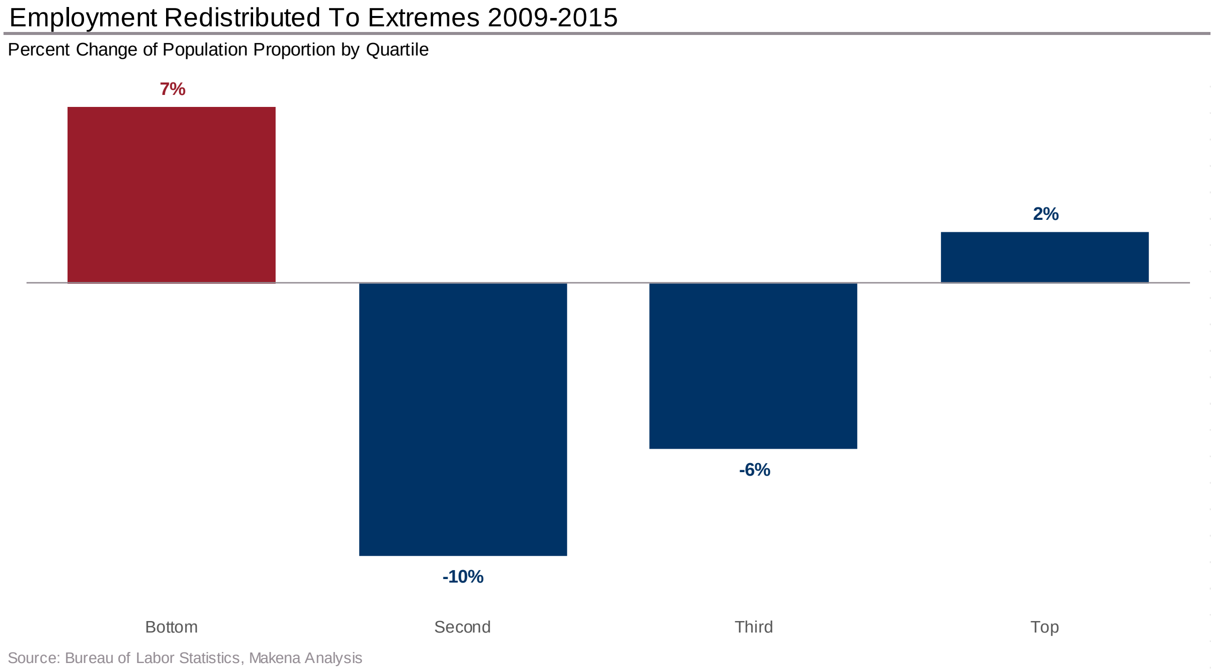



**Figure 2: Employment Shares by Income Quartiles – The Hollowing Out of the Middle Class**

Therefore, while jobs are being created in the US, they are of lower "quality" than the jobs that were lost during the recession. It is important to note that the much-celebrated re-industrialization of the US that occurred prior to the dollar rally of 2014-15 is not necessarily a positive: the typical income generated by non-union blue collar workers in the American southeast (where the reindustrialization is focused) is most likely below median US income levels. Meanwhile, manufacturing jobs in many EM countries are above average income occupations, so the re-industrialization of the US hurts EM countries more than it benefits the US. Furthermore, this has a knock-on effect on potential growth for the US, as many of these low wage jobs offer little chance for workers to increase their wages over time. Said differently, these are jobs being created, not careers. Since one of the fundamental drivers of GDP growth is income growth, this is yet another headwind to US growth to add to our list.

Finally, let us note that this increase in low-wage jobs is not a US-only phenomenon, but is one that is being actively documented across the developed world. A set of books published as part of a research program known as *The Future of Work* highlighted the following[3]: "Soon one in four of those working in the most developed economies of the western hemisphere may be low paid and find themselves at increased risk of poverty. [...] These low-wage jobs [...] are concentrated in hotels, catering and retail industries." Figure 3 below shows the size of the low-wage phenomenon across several key countries. We will address the question of what are the potential drivers of this low-wage phenomenon further on in this letter.

[3] Case Studies of Job Quality in Advanced Economies, 2008, Russell Sage Foundation, New York

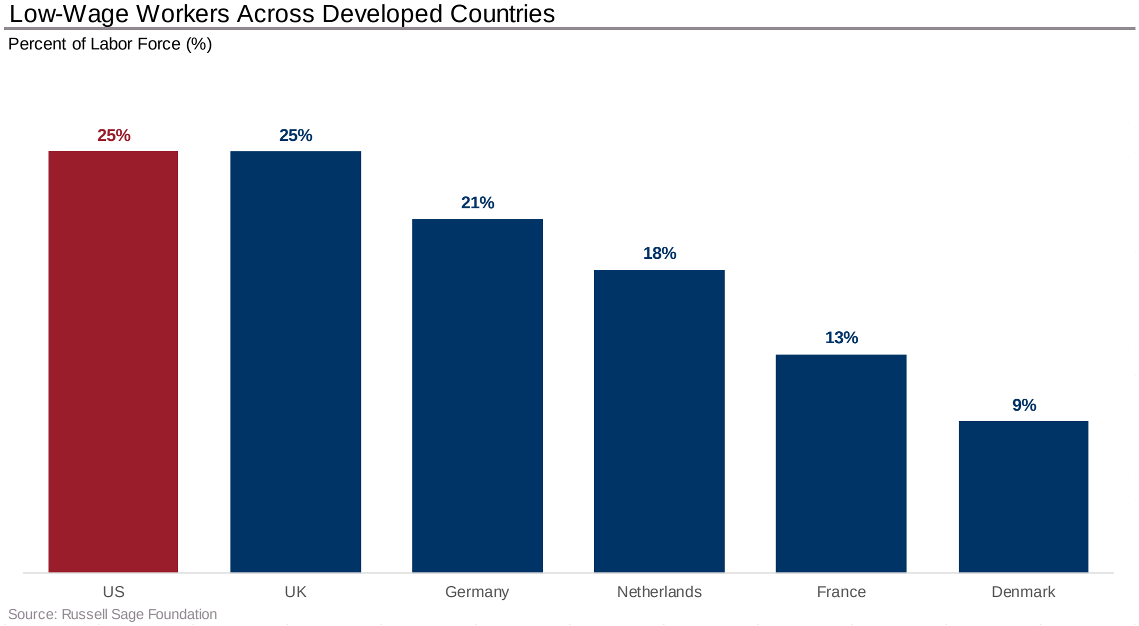



**Figure 3: The Low Wage Phenomenon across the Developed World**

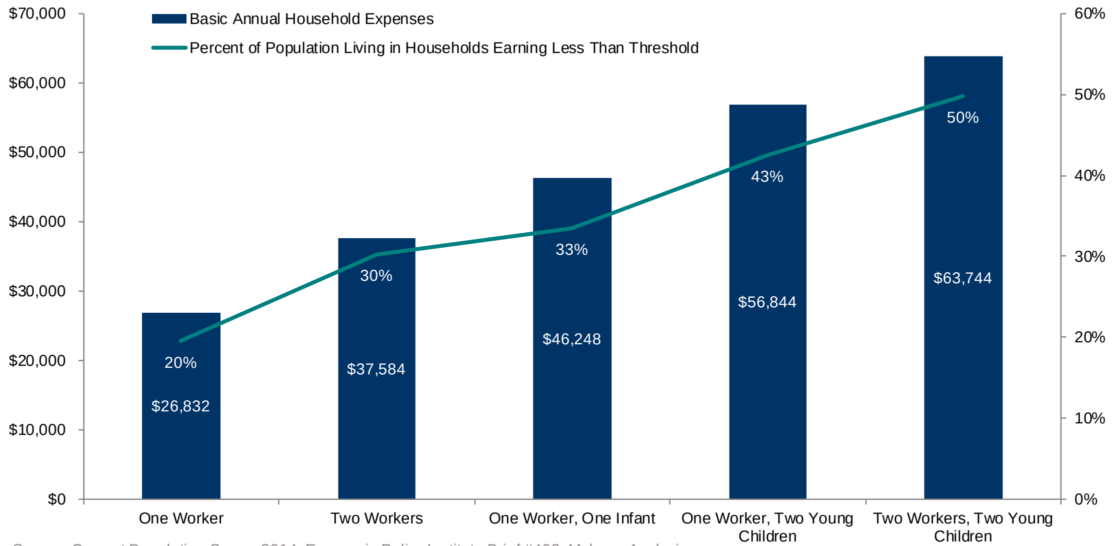
*Low Wages a Drag on Growth*

There is a growing amount of literature that establishes a link between GDP growth and low wages[4,5]. The research indicates that if a household has so little income that it is preoccupied with day to day survival, then it has neither the time nor the money available to invest in developing its own human capital, for instance through formal education.

Having large numbers of people earning less than a certain income level creates insufficient investment in human capital, lowers aggregate demand, and therefore contributes to insufficient business investment. Said differently, if even the poorest American earned more than enough to ensure a relatively comfortable standard of living, low wages would not harm growth. Unfortunately, that is not the situation today. Figure 4 below illustrates the situation for the US, based on the Department of Health and Human Services estimate of the minimum amount of income required to be able to pay for shelter, food, healthcare, childcare and education. For the typical household of four, with two working adults and two children, the minimum income required is estimated at $63,744. Compared with the median household income of $50,000 a year[6], the implication is that ~56% of US households probably do not earn enough to properly invest in developing family members' skills, and "under consume" relative to their needs. Similar conclusions can be drawn for other household types. These shocking numbers are no doubt a significant driver of both Sanders' and Trump's appeal.

4 Inequality and Unsustainable Growth: Two Sides of the Same Coin?, IMF Staff Discussion Note, April 2011
5 Redistribution, Inequality, and Growth, IMF Research Department, April 2014
6 See www.census.gov/hhes/www/income/

Basic Household Expenses and Income Distribution
USD, Percent




Source: Current Population Survey 2014, Economic Policy Institute Brief #403, Makena Analysis

**Figure 4: Minimum Income Requirements for Various Household Types vs US Income Distribution**

### *For Many The American Dream Has Become a Nightmare (Sanders paraphrasing Malcolm X)*

The high and growing size of the low-income phenomenon is likely an important driver of the relatively low social mobility now found in the US. Figure 5 below shows intergenerational income elasticity, i.e. the importance of parents' income in determining children's incomes. The US fares relatively poorly on this measure with parents' incomes being highly predictive of their children's incomes. While there are debates around the validity of social mobility data, one aspect for the US is generally accepted as fact: once a household reaches a very low-income state, it is extremely difficult to break back out of that income level. This is consistent with our finding above that many households in the US lack the income to be able to develop their skills through education. In other words, once a household reaches a very low level of income, it enters a sort of "black hole" from which it is nearly impossible to escape. Add together enough households in this predicament, and dramatic shifts in the political landscape seem likely. Indeed, the past election in the US had President Obama giving speeches that often sounded similar to speeches by social democrats in Europe. We have a long way to go before we reach the levels of bureaucracy and taxation prevalent in Europe; however, the recent tax hikes and entitlement increases seem to be moving us in that direction. President Obama's budgets increased taxation on high earners. It is important to note that a shift towards European-style government has important implications for US growth; potential GDP growth rates in Europe hover around the 1% mark, versus approximately 2% here in the US.

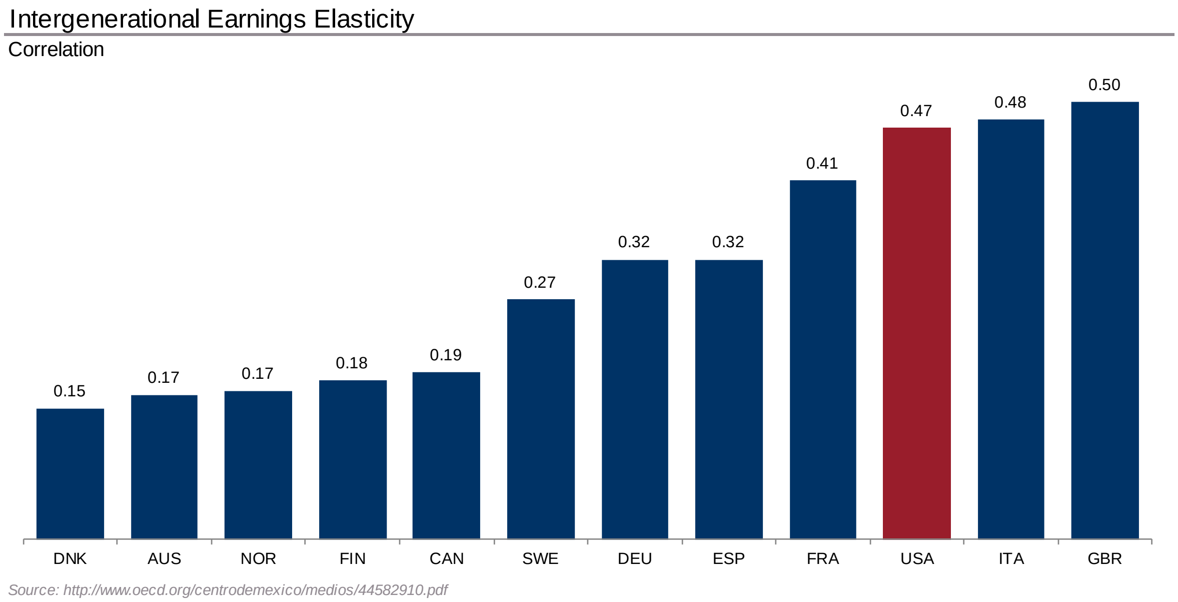



**Figure 5: Correlation between Parents and Children's Incomes**

While evidence indicates that a society with a large segment of the population that is unable to invest in itself will reduce growth, demographics are another important influence on growth rates.

Given that across most of the developed world birthrates have fallen to below the replacement rate, countries are "graying" rapidly. Figure 6 below shows how Germany (a proxy for Europe as a whole) and Japan have 20-25% of their population now over 65, with that share moving above 30% in the next decade or so. As fewer and fewer people work, it naturally follows that growth should slow, and that pro-growth (and therefore pro-inflation) policy will become less and less popular – people on fixed retirement incomes do not want inflation. In this context, the US stands out amongst developed countries with the share of the population over 65 stabilizing at levels much below those in Europe and Japan; based on projections in Figure 6, a decade from now the US share of above 65s will be in the mid-teens or approximately half that of Europe or Japan. Why is the US such an outlier? One word: immigration. More specifically, immigrants are having more children and keeping a healthy share of young people in the workforce – as an example, of the 491,487 births recorded in California in 2015, 314,513 (or 64%) were of children of Asian or Hispanic origin[7].

Often, the political sensationalism surrounding immigration overshadows the economic reality that populations with lower birthrates will see their worker-to-retiree ratio "age into" zero growth. Japan is the textbook example of this dynamic with one of the highest retiree-to-worker ratios of any nation[8]. For every 100 people active in the workforce, there are 42 dependents aged 65 and above, compared to 32 for Germany, 22 for the United States, and 8 for India[9].

Finally, let us work through a very basic analysis of the impact on the US economy of deporting all undocumented immigrants. The arithmetic is simple: the US civilian labor force is 156 million in size[10] with a total population of 320 million[11], and undocumented immigrants are estimated to be 11.3 million people.[12] If we assume the age distribution of the documented population is representative of the undocumented population, which is very conservative, then the proposal is to deport over 3.5% of the US working population or 5.5 million individuals actively contributing to the US economy. This would likely prove a pyrrhic victory at best.

[7] National Vital Statistics Reports Vol. 65 Number 3, June 2, 2016
[8] http://yaleglobal.yale.edu/content/number-workers-retiree-declines-worldwide
[9] http://data.worldbank.org/indicator/SP.POP.DPND.OL
[10] http://data.bls.gov/pdq/SurveyOutputServlet?request_action=wh&graph_name=LN_cpsbref1, end of 2014 data was used for date matching with PEW Data
[11] http://www.census.gov/popest/data/national/totals/2014/index.html
[12] http://www.pewresearch.org/fact-tank/2015/11/19/5-facts-about-illegal-immigration-in-the-u-s/

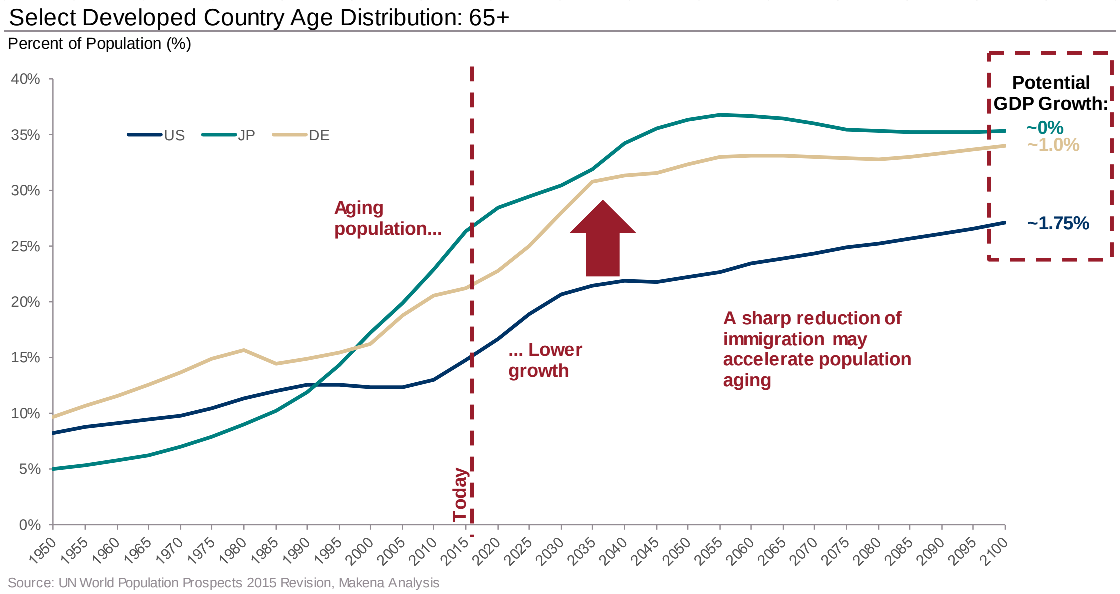



**Figure 6: Immigration Policies May Affect Labor Force**

*The Dark Side of Globalization and Technology*

The preceding discussion raises an important question: are the decline of the middle class and the rising low-wage phenomenon in developed economies the outcomes of a globalized world where developed economy workers are competing with their emerging market counterparts, and with machines or technology?

This is a difficult question to answer conclusively, yet a number of indicators show worrisome trends. For instance, an important economic statistic that has been declining for the past thirty years is the labor share of income. This can be thought of as the amount of business income that is paid to employees in the form of wages or other benefits as opposed to being paid to the owners of capital (i.e. dividends, share buybacks or retained earnings). As can be seen in Figure 7 below, the labor share of income has declined significantly over the last thirty years both in the US and in other developed countries. This latter aspect is important because it suggests that the root cause of the decline is not due to policy differences across countries (e.g. labor laws / collective bargaining).

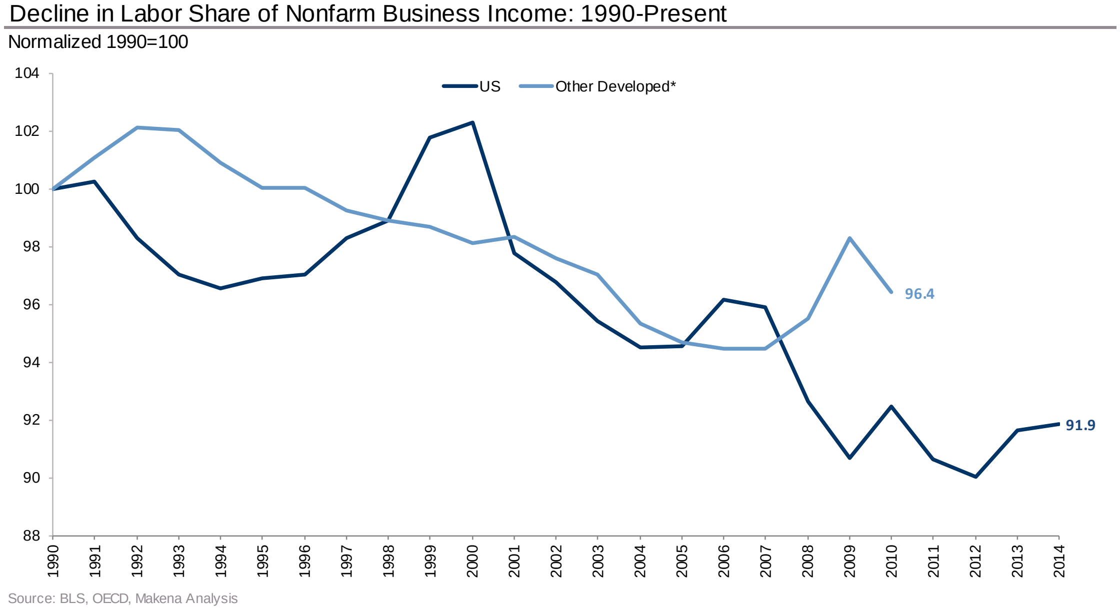
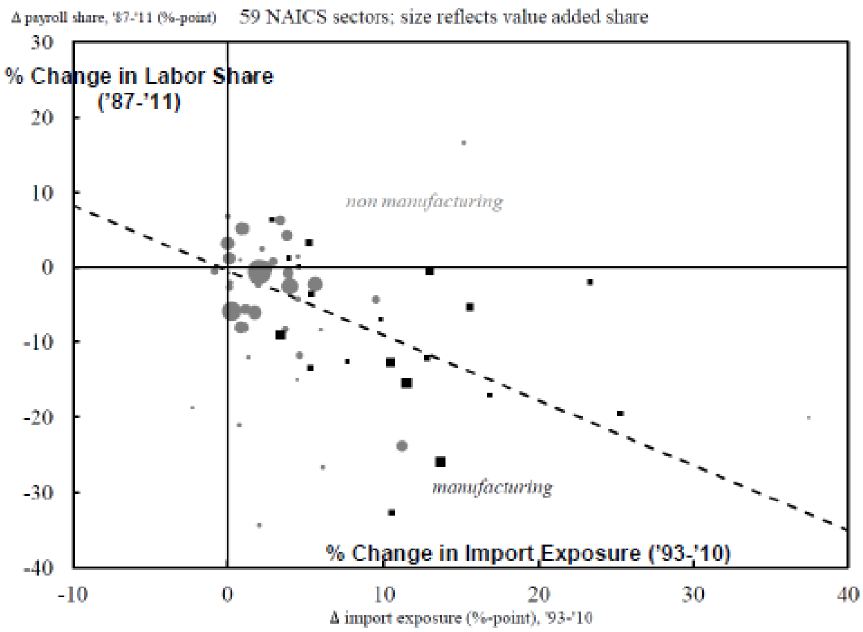



**Figure 7: Decline in Labor Share of Nonfarm Business Income (1990-Present)**

A number of recent studies are increasingly pointing to a combination of globalization and technology driving the lower labor share of income. For instance, a Brookings Institution study estimated that increased exposure of US businesses to competitive imports explains 84% of the decline in the labor share of income over the last 25 years[13]. Figure 8 below from the study clearly shows the relationship between exposure to competing imports and declining labor share of income.




*Source: Bureau of Economic Analysis, Bureau of Labor Statistics, and authors' calculations*

**Figure 8: Reduction in Labor Force Driven by Increase in Import Exposure**

Further research by the University of Chicago found that half of the decline in global labor share of income over the last 35 years was attributable to a decrease in the price of investment goods as a result of improved technology.[14]

The kinds of jobs that are most susceptible to offshoring and to capital substitution (by computers or machines) are precisely the kinds of middle-skill, middle-wage jobs that have been disappearing among the developed economies. The Economist recently published a list of jobs that will disappear or shrink within the next twenty years – some of the occupations included: accountants, auditors, technical writers, economists, and commercial pilots, to name a few[15]. None of these are minimum wage occupations. Figure 9 below is a graphical representation of how this shift manifests itself in pay distribution, with a clustering of job creation at or near to the minimum wage level, and then some growth at the very high end for managerial occupations.

[13] The Decline of the U.S. Labor Share", Elsby, Hobijn and Sahin 2013, Brookings Institution
[14] "The Global Decline of the Labor Share", Karabarbounis and Neiman 2013, The Quarterly Journal of Economics (2014)
[15] "The Economist," January 18th 2014, "The Future of Jobs: The Onrushing Wave"

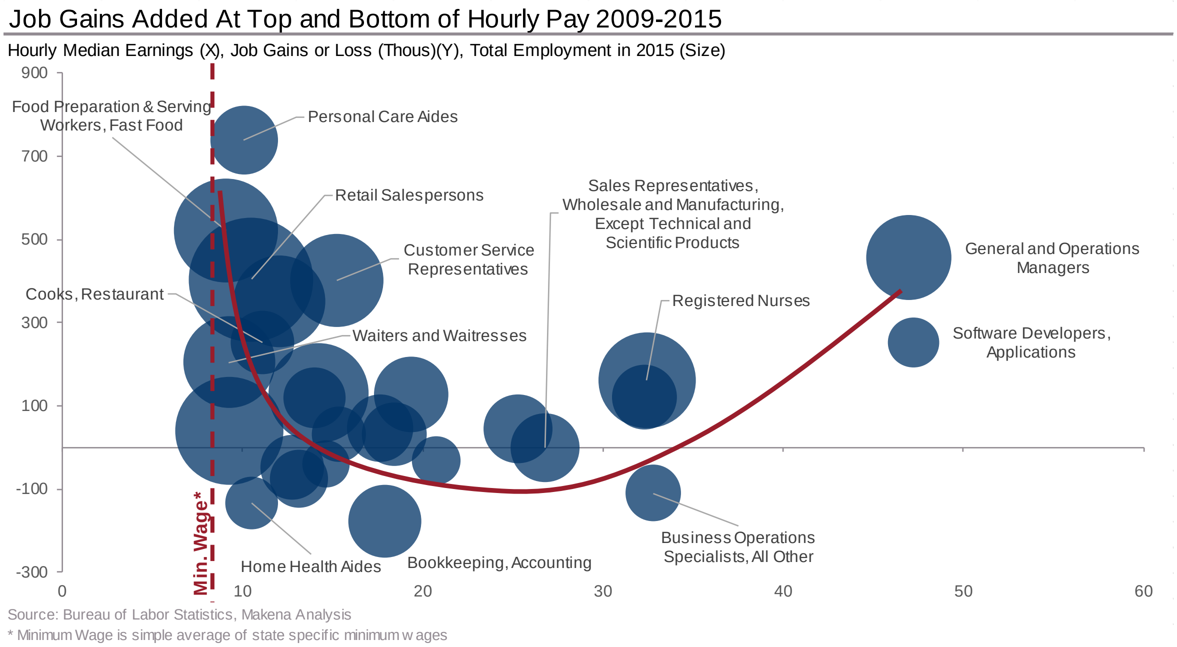



**Figure 9: The Middle Income Pay Grade Sees Minimal, Almost Negative Change**

The corollary of this disappearing middle class is the continuing bifurcation in the US of incomes into high and low income categories as we explored above. Highly skilled workers become more and more in demand in a globalized and technologically savvy world, and therefore command increasing incomes. Meanwhile, medium-skill jobs can easily be offshored while the very low-skilled jobs that require physical presence remain localized. This is the mechanism that drives the decreasing share of labor income. By definition, as the labor share of income declines, average wages will grow more slowly relative to GDP. In other words, most workers benefit less and less from growth. At the same time, the owners of capital or of exceptional skills capture a greater proportion of the returns from growth. Since affluent households own the lion's share of equities, this process becomes a negative feedback loop, accentuating the problem.

But where does that leave us now? All of the forces and trends we have identified result in there being a demand deficit and not just temporarily lower growth but ultimately a reduction in potential growth. Lower growth in turn means less investment opportunities in the US (hence the accumulation of cash on corporate balance sheets). The low-wage problem is therefore important and some measure of income redistribution might well lead to higher long-term growth rates by boosting demand and therefore increasing the opportunities for productive investment.

The Partners of Makena Capital Management

Analysis by Michel Del Buono, Global Investment Strategist

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