



the tampa bay economy

WHY IS INCOME AND WEALTH INEQUALITY WORSENING?

By Vivekanand Jayakumar, Ph.D.

In the 1950s, Nobel Laureate Simon Kuznets famously argued that the economic development process was characterized by an inverse U-shaped relationship between inequality and economic growth. According to the Kuznets Curve, as countries developed, inequality first rose, peaked, and then gradually declined. Utilizing an intuitively appealing industrial development and structural change framework (see Kuznets, S. (1955) "Economic Growth and Income Inequality," American Economic Review, 45(1): 1-28), Kuznets reasoned that during the early stages of development most citizens are based in rural areas confined to small-scale farming-related activities. Low levels of inequality are the norm in that environment. Once industrialization ensues, new industrial centers proliferate and urbanization occurs. Higher productivity from capital-augmented industrial production raises urban wages, entices rural workers to move, and causes cities to become richer than the countryside. Inequality rises during the initial and middle stages of economic development. Over time, however, a turning point is reached when the diminishing number of rural workers and increased mechanization of farming activities narrows the urban-rural divide. With

a majority of the population concentrated in cities, socio-economic changes (recognition of worker rights, spread of unionization/collective bargaining, implementation of progressive taxation and establishment of social safety nets, and ultimately, emergence of a large middle class) bring about a gradual decline in overall inequality.

In the late 19th century and through much of the 20th century, income inequality trends in the US and several other major advanced economies largely followed the Kuznets Curve hypothesis: as economies developed, inequality fell in the 1940s and remained low until the 1970s. Since the 1980s, however, inequality has risen sharply in the US and currently remains at historically high levels. As shown in Figure 1.1 and Figure 1.2, top U.S. earners have garnered an increasingly large share of the U.S. income pie in recent years. The top 10 percent of income earners saw their share of total income (including capital gains) exceed 50 percent in 2015. Meanwhile those in the top 1 percent saw their share of total income (including capital gains) exceed 22 percent in 2015. The wealth gap has also noticeably widened. As shown in Figure 1.3, the top 10 percent of households held around 77 percent of total wealth in 2012, within which the top 1 percent held 41 percent.

Inside this Issue of The Tampa Bay Economy:



F. Frank Ghannadian, Ph.D.
Dean, Sykes College of Business

...1

Why is Income and Wealth Inequality Worsening?

by Vivekanand Jayakumar, Ph.D.
Associate Professor of Economics



...4

The Tampa Bay Economy: August Update

by John R. Stinespring, Ph.D.
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of Economics



To a lesser extent, income and wealth inequality have grown in other advanced economies as well in recent decades, upending the notion that societies become more egalitarian as they become richer. This surge

continued on page 2

Figure 1.1: The Top Decile Income Share, 1917-2015 (%) - United States

Data Source: Piketty and Saez (Updated Data from <https://eml.berkeley.edu/~saez/>)

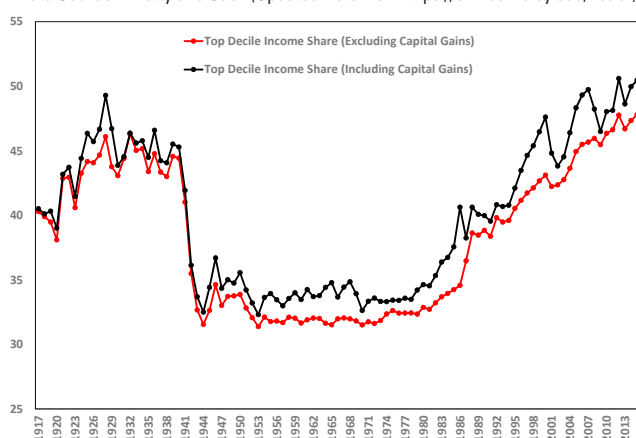


Figure 1.2: The Top 1% Income Share 1913-2015 (%) - United States

Data Source: Piketty and Saez (Updated Data from <https://eml.berkeley.edu/~saez/>)

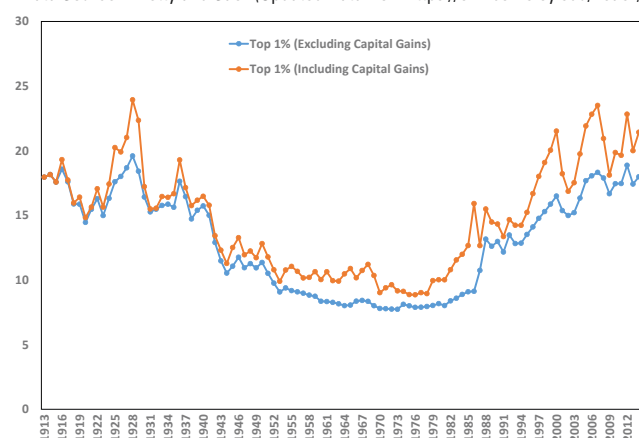
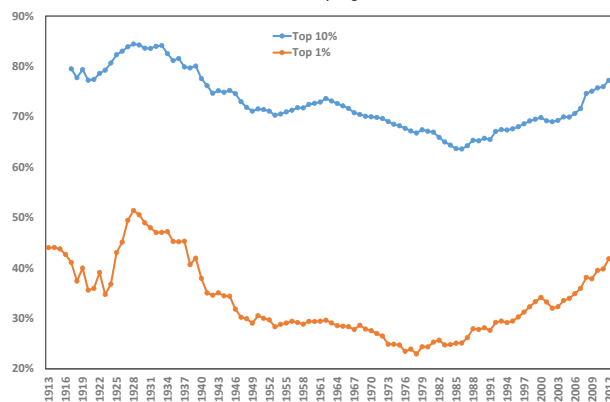
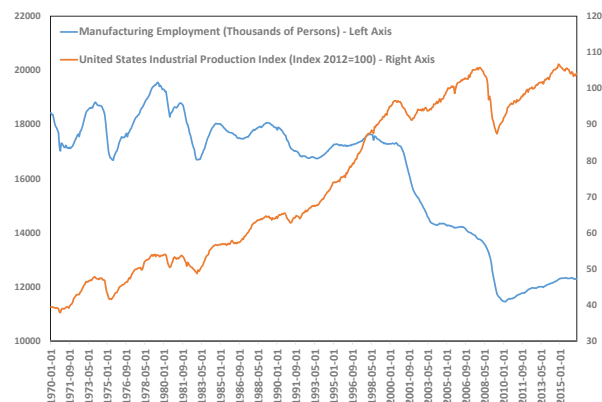


Figure 1.3: Top Wealth Shares (%) - United StatesData Source: Saez and Zuckman (<http://gabriel-zucman.eu/uswealth/>)**Figure 1.4: Industrial Production and Manufacturing Employment - United States**

Data Source: Federal Reserve Bank of St. Louis



Why is Income and Wealth Inequality Worsening?

continued from page 1

in income and wealth inequality has generated considerable attention amongst economists, policymakers, and even the general public. However, given the politically-charged nature of the topic, an objective consideration of the various factors contributing to the spike in income and wealth inequality is often absent in debates involving this important issue. Additionally, evaluation of the potential consequences arising from the spike in inequality is rarely highlighted in public discourses associated with the topic.

Former World Bank economist Branko Milanovic proposes an interesting new hypothesis in his recent book *Global Inequality: A New Approach for the Age of Globalization*. Milanovic persuasively argues that we must consider the recent uptick in within-country inequality as part of a multi-century wave pattern in income distribution. In essence, Milanovic suggests replacing the Kuznets Curve with Kuznets Waves. According to the Kuznets Waves hypothesis, economies are subject to decades-long trends of declining inequality followed by similarly long eras of rising inequality, which in turn give rise to another period of declining income gaps and so on. Historically, these cycles were driven by wars, famines and natural disasters (the so-called Malthusian era). From the 19th century onwards, following the industrial revolution, forces such as technological revolutions, globalization, and policy shifts became the critical drivers of the so-called Kuznets Waves.

The post-1970s spike in inequality was driven by the combination of several powerful forces—rapid and transformative technological changes and globalization,

along with critical policy shifts. Technological changes in recent decades have primarily been of the skill-biased variety—technology that enhances the productivity of, and thus boosts the demand for, high-skilled labor. Additionally, automation has replaced labor in sectors involving routine and non-cognitive tasks. For instance, modern factories are staffed with versatile and powerful robots and require relatively few humans. This has contributed to the reduction in need for basic assembly line workers—often, the gateway to the middle class for Americans in the mid-20th century. Goods production activities in general have experienced a significant technological shock. It is worth noting that currently, the U.S. industrial production index is at an all-time high despite employing substantially fewer workers (see Figure 1.4). Skill-biased technical change has affected the relative demand for skilled workers vis-à-vis unskilled workers. Highly educated workers (including engineers, computer programmers, and designers) have benefited from recent technological breakthroughs whereas those with only a high school level (or less) education have been adversely impacted.

Regarding the extreme inequality trends noted in Figures 1.1 and 1.2, it is important to consider the confluence of recent technological developments with the emergence of a global marketplace. A particularly notable aspect of the combined technological revolution and globalization is the increasing frequency of “winner-take-all” market outcomes. Driven by the rising prominence of network effects and the potential for increasing returns to scale (whereby increases in inputs lead to even larger increases in output), we often observe a few successful firms (and their founders/owners) capturing much of the rents in specific sectors. For instance, if we consider the software industry (one of the

most important sectors of the modern era), it is frequently observed that just a few talented programmers and developers are able to corner a particular market and obtain most of the generated profits because a product even with just a slight edge tends to grab a significant market share. There are substantial built-in positive externalities arising from most users adopting a common platform—Facebook in the social media space, Google in the search engine space, Microsoft Office in the application space, and SAP and Oracle in the business processing space are just a few of the more prominent examples. The fact that the available market space is increasingly global implies that the profit potential for the successful firm is massive because the marginal cost of producing extra units is near zero in the software sector. These economies of scale, whereby unit increases in production lead to lower per-unit costs, provide evidence for increasing returns to scale. The ability to distribute these goods cheaply to all corners of the planet means the returns to the few who succeed are often tallied in billions, if not tens of billions, of dollars.

Two important developments related to globalization have also played a role in driving income distribution trends within countries as well as globally. First, the ability to create efficient global supply chains that allow particular regions to specialize in the production of specific parts allows for the economies of scale dynamic to play an unprecedented role. Monopolies and oligopolies naturally emerge in this environment. Second, with the addition of two billion plus workers to the global pool of workers (following the economic integration of China, India, Southeast Asia and, lately, Africa), higher returns have accrued to capital owners rather than to labor. As economic theory would suggest, in a world where capital is scarce and labor is abundant, a greater share of the global

Figure 1.5: Shares of Top 1% Incomes in Total Pre-Tax Income, 1981–2012 (or Closest)
Data Source: OECD

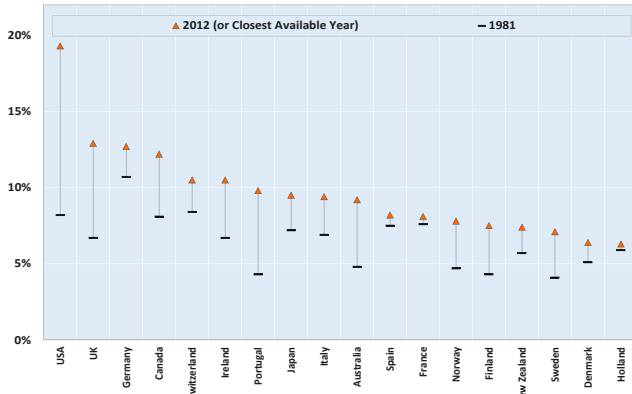
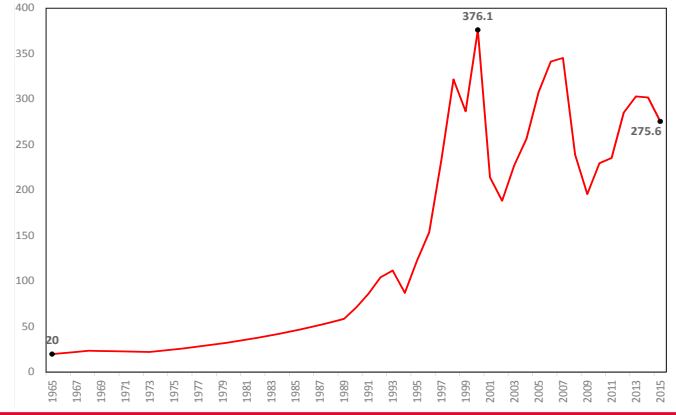


Figure 1.6: CEO-to-Worker Compensation Ratio

Data Source: Lawrence Mishel and Jessica Schieder - Economic Policy Institute (EPI)



income pie will go to capital owners. Wealth distribution data indicate that the already well-off (capital owners) are likely to benefit as capital gains accrue from more efficient and internationally-oriented deployment of capital.

While technological progress and globalization trends are largely driven by secular forces, policy shifts along with fundamental changes in business practices over the past three decades have also contributed to the emergence of extreme inequality, particularly in the U.S. and U.K. Data suggests that the share going to the top 1 percent in the U.S. and U.K. rose more dramatically than elsewhere (see Figure 1.5) signifying a potential role for non-secular forces—in other words, policy and regulatory changes in certain countries may have exacerbated the underlying trend of rising inequality. For instance, evolving compensation metrics (such as the growing usage of stock options) has led to an extraordinary change in the average CEO to worker compensation ratio in recent decades (Figure 1.6). Another shift of particular significance to the U.S. and U.K. was the liberalization of the financial sector in the post-1980 era and the resultant

financialization of the economy. The increased financialization of the U.S. (and U.K.) economy and concomitant growth of the financial sector generated abnormal returns in certain segments—according to *Forbes* magazine, the 25 highest-earning hedge fund managers and traders made a combined \$12 billion in 2015, and \$12.5 billion in 2014. Growth of the financial sector has been driven by the increasing significance of private pools of retirement savings and endowment funds, and by the growing dominance of securities and financial derivatives trading. Recent research (Abowd JM, et al. (2012), Persistent Inter-Industry Wage Differences: Rent Sharing and Opportunity Costs. *IZA Journal of Labor Economics* 1(1): 1–25) indicates the presence of abnormal pay levels (“gratuitous pay” or economic rents) in the finance sector. John Abowd and his co-authors estimated the influence of individual skills on worker earnings in prominent American industries and found that workers in the financial sector (includes securities brokers, investment bankers, hedge fund managers and traders) obtained the highest amount of “excess pay”, earning about 26 percent more, irrespective of skill

level. Absence of effective competition and regulatory barriers are possible contributors to the excess pay for some finance professionals.

Controversially, some have suggested that changes in tax policy may also have contributed to the rise in income and wealth inequality. For instance, the top marginal tax rate in the U.S. has changed markedly since the 1980s (see Figure 1.7). More importantly, differential taxation on capital income relative to labor income (taking into account the 3.8 percent Medicare surcharge faced by high earners, the highest marginal tax rate on long-term capital gains is currently around 23.8 percent and the top marginal income tax rate is currently around 43.4 percent) has likely played a crucial role in generating extreme inequality—this is of particular significance due to the previously noted extra gains accruing to capital owners in recent decades. If we consider the average tax rate faced by the super-rich (Table 1), there is evidence of less progressive taxation at the very top of the income ladder (driven primarily by the fact that the very rich generate significantly more capital income than labor income). Ability to

continued on page 6

Figure 1.7: Top U.S. Marginal Tax Rate (%)

Data Source: Tax Policy Center and IRS Institute (EPI)

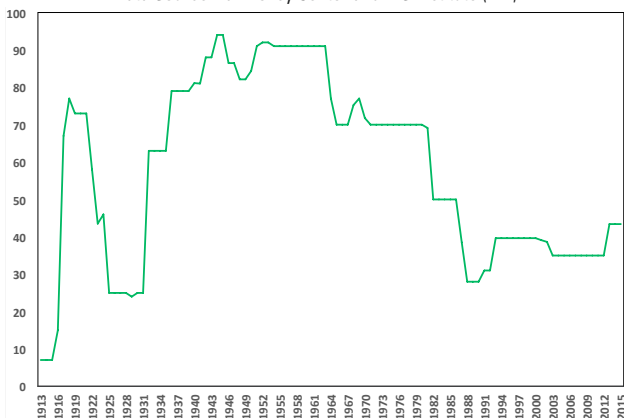


Table 1: Average Income Tax Rate – 2012

Income Percentile	Average Income Tax Rate in 2012 (Data Source: IRS)
Top 50%	14.33
Top 20%	17.04
Top 10%	19.21
Top 5%	20.97
Top 1%	22.83
Top 0.1%	21.67
Top 0.01%	19.53
Top 0.001%	17.6

THE TAMPA BAY ECONOMY: AUGUST UPDATE

By John R. Stinespring, Ph.D.

The economy of Tampa Bay (Hernando, Hillsborough, Pasco and Pinellas counties combined) is in its seventh year of economic expansion, and we expect it to continue growing over the foreseeable months ahead. Though there are potential national headwinds such as a looming interest rate hike, slower real GDP growth, the uncertainty of the presidential election, and the overall age of the expansion itself, economic indicators for the region remain positive. In fact, the Tampa Bay economy is in a Goldilocks position, neither overheating nor slowing notably. As detailed in this update, growth in the region appears on trend in terms of the labor market, the housing market, and measures of economic output.

Like the U.S. economy, the labor market of the Tampa Bay economy (TBE) has been robust of late. As of June 2016, the (seasonally-adjusted) unemployment rate declined for both the nation and Florida to 4.9 percent, while the TBE has seen it fall to 4.6 percent. Figure 2.1 shows the relatively low unemployment rate has been persistent with May 2016 falling to 4.1 percent, the lowest level since May 2007. The decline in unemployment is mirrored by the increase in jobs as seen in Figure 2.2. Year-over-year growth in (seasonally-adjusted) nonfarm payrolls for the first half of 2016 averaged 3.3 percent for TBE, well above the US rate of 1.8 percent. Measures of employment, however, are *lagging indicators* of the economy's direction that tell us how well the economy performed in the recent past to generate these jobs.

For a *coincident indicator*—one that indicates where the economy currently is in the business cycle—we use measures of overall demand in the Tampa Bay economy. Figure 2.3 below shows Gross Sales (solid line) for the TBE increasing from \$7.2 billion in April 2009 (near the end of the Great Recession) to over \$10 billion by April 2016. The graph depicts a growing economy in expansion with a clear upward trend amid seasonal peaks that appear quarterly in December, March, June, and September. Barring any significant economic shocks, our forecast (dotted line) suggests an average monthly increase of \$42 million for the remainder of 2016 equivalent to an additional \$500 million for the year. This implies sales will peak above \$13.5 billion this December.

continued on page 5

Figure 2.1: Unemployment Rate for US, Florida, and Tampa MSA
Source: US Bureau of Labor Statistics (Seasonally-Adjusted)

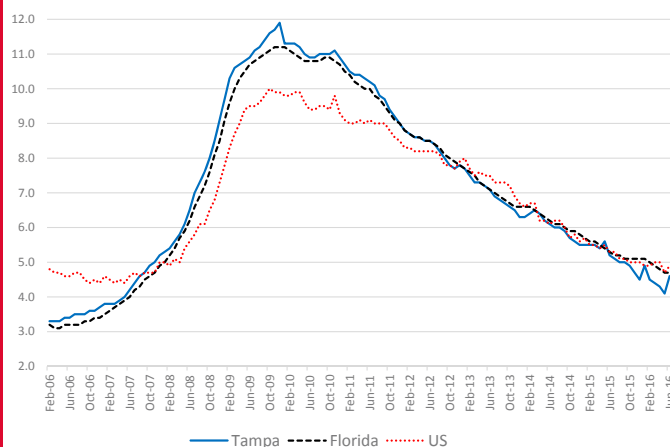


Figure 2.2: Percentage Change in Nonfarm Payrolls for Tampa and US (Seasonally-Adjusted)
Source: Bureau of Labor Statistics

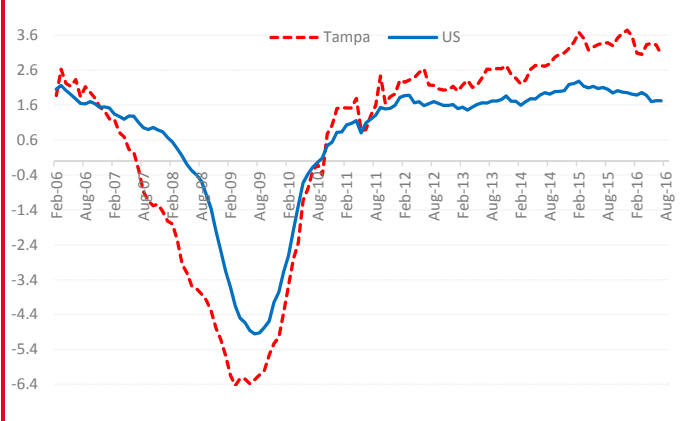
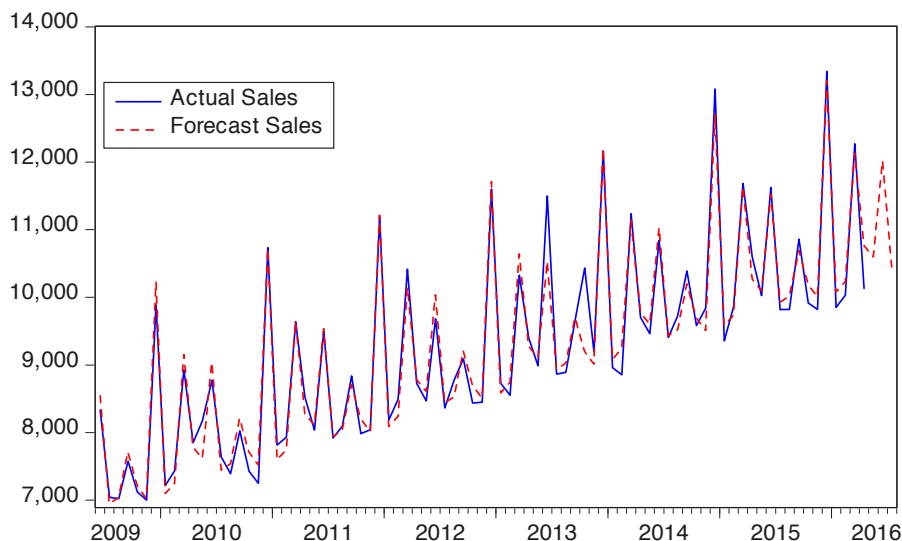


Figure 2.3: Gross Sales in Tampa Bay: January 2009–March 2016
Source: Florida Department of Revenue and author's calculations



The Tampa Bay Economy: August Update

continued from page 4

For *leading indicators* of the economy—those that indicate where the economy is headed—we turn to the housing market. Home construction, in particular, has a significant economic impact on an economy and declines tend to lead recessions while increases in construction bolster economic expansions. Housing Starts by Building Permits, shown in Figure 2.4, is a monthly regional series with an upward trend. Our forecast suggests permits will increase by 6.3 per month on average and an average of 787 per month for the latter half of 2016. In fact our forecast may be conservative as permits for five of the last six months have been above the forecasted values, a positive sign. Another positive sign for the economy is that home prices have been rising along

with sales. The Case-Shiller Index in Figure 2.5 shows an increase with low, medium, and high tier home prices throughout the region. The low tier experienced the greatest percentage decline and increase over the 2001 to 2016 period. The Tampa MSA appears to be on a clear upward trend with much room to go before hitting the price peaks of 2006.

The previous discussion provides an indication of how the economy is growing but does not indicate whether this growth rate is above, below, or at the TBE's potential. To estimate the economy's potential, macroeconomists exploit a relationship known as Okun's law which indicates by how much a 1 percent increase in the growth rate of output decreases unemployment (see *Research Corner* in the Winter 2016 edition of the *Tampa Bay Economy*). Our research indicates every 1 percent increase in real output (proxied here by the Bureau of Economic Analysis's *Earnings by Place of Work*) causes

a 0.3 percent decrease in unemployment for many Florida Metropolitan Statistical Areas (MSAs). This relationship provides a back-of-the-envelope measure of the potential growth rate of the Tampa Bay MSA near 2.7 percent as shown in Figure 2.6 along with other Florida MSAs. Given the years 2012, 2013, and 2014 experienced growth rates of 3.1, 3.0 and 4.0 for inflation-adjusted earnings, respectively, output appears to have grown above trend. Though output data for 2015 at the MSA level is not yet published, the decline in unemployment implies real earnings growth well above 4 percent in 2015, using our Okun's law coefficient of 0.3. This back-of-the-envelope assessment of the TBE's recent strength comports well with the recent spate of news releases praising the TBE as one of the best performing MSAs of late. 📌

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**Figure 2.4: Tampa Bay Housing Start Permits for
June 2009–December 2015**

Source: U.S. Department of Housing and Urban Development and author's calculations

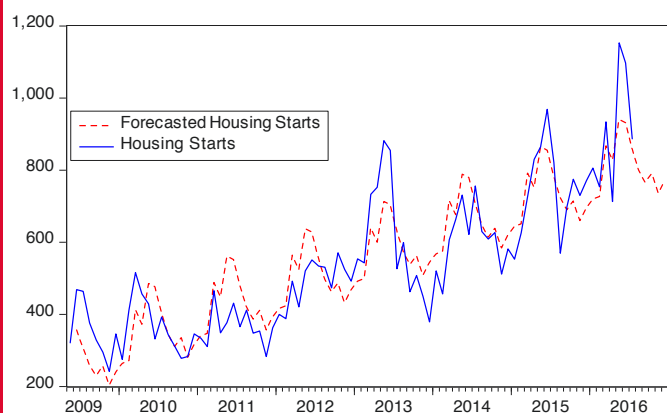


Figure 2.5: Case-Shiller HPI for Tampa Bay: 2000–2016

Source: St. Louis Federal Reserve

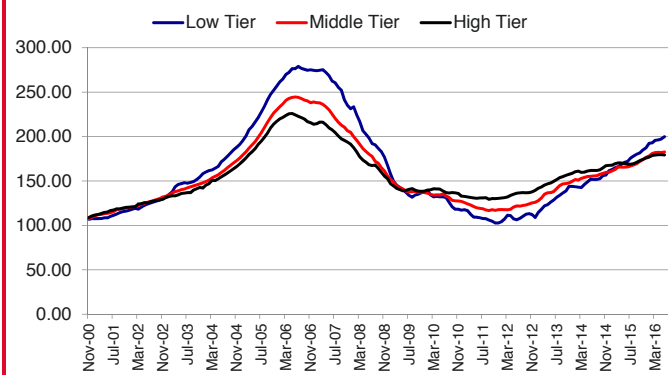
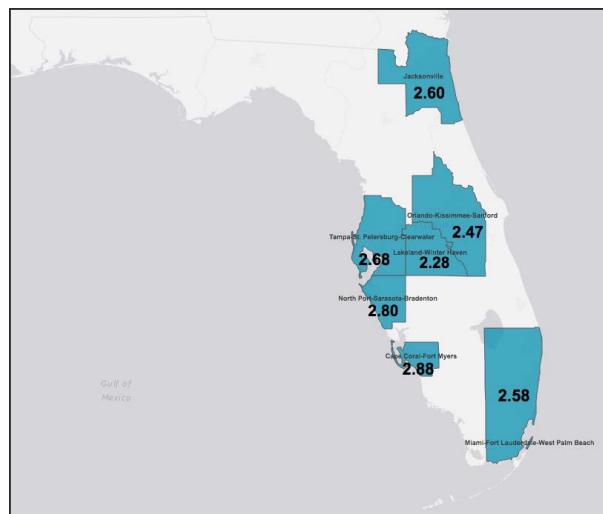


Figure 2.6: Potential Output Growth Rates for FL MSA

Sources: St. Louis Federal Reserve, Bureau of Labor and author's calculations



Why is Income and Wealth Inequality Worsening?

continued from page 3

save and reinvest are crucial determinants of wealth levels, and, as such, a more favorable tax regime enables the super-rich in the U.S. to build upon their existing wealth more rapidly (Looney, A. and Moore, K. B. (2016), *Changes in the Distribution of After-Tax Wealth in the U.S.: Has Income Tax Policy Increased Wealth Inequality?* Fiscal Studies, 37: 77–104).

It is clear from the above discussion that income and wealth inequality has worsened as a consequence of both secular forces (technological revolution and globalization) as well as policy shifts (such as changing pay norms, increasing financialization, and less progressive taxes). A Schumpeterian capitalist system requires certain unequal rewards to encourage risk-taking and entrepreneurship. Additionally, human capital acquisition requiring significant investment of time, effort and money will be undertaken only when sizable rewards are expected in the future. So, a certain level of inequality is in fact

necessary for capitalistic systems to function efficiently. However, extreme inequality, when combined with diminished prospects of inter-generational economic mobility, can be a recipe for economic and social disorder. The recent surge in protectionist sentiments in the U.S., U.K. and elsewhere is one adverse outcome.

Socio-economic changes have negatively impacted inter-generational mobility and created persistent income and wealth gaps. Assortative mating (growing trend of people marrying those of similar educational and income backgrounds) and the rising gap in skill-acquisition (children from high income households are more likely to attend top universities and more likely to complete degree requirements) are two crucial factors that are adversely impacting economic mobility and generating social discord. In a consumer driven economy like that of the United States there are also macroeconomic consequences arising from extreme inequality – the marginal propensity to consume (MPC) is heterogeneous in the real world (typically, the rich have lower MPC than the poor), and therefore, economic growth may be subdued in an environment

where outsized income and wealth gains accrue primarily to those at the very top.

While secular forces will play themselves out in the long run, reforms aimed at boosting competition in both product and labor markets as well as better designed corporate and income tax policies may be the need of the hour. Avoiding regulatory capture (by reducing the role of corporate lobbying) and reforming the antiquated patent system will likely enhance product market competition. On the tax reform front, reduction or elimination of corporate taxes (which currently harm small business much more than large multinational firms) and equal tax treatment of income generated from different sources (that is, taxing labor and capital income at the similar rates) would enhance competitiveness as well as boost the progressivity of the tax regime. Finally, improving access to educational and technical training facilities may help boost prospects for economic mobility and generate greater labor market competition. 📌

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