JM3 PROJECTS

# Defined Contribution Savings:

# Capital Markets & Innovation

**Defined contribution workplace savings plans like the 401(k) have proven their worth as the optimal retirement finance option for American workers. And as plan coverage expands, more workers will be able to benefit from the popular plans. Less well-understood is the fact that workplace savings – accruing one payroll deduction at a time – have become a dominant vehicle for U.S. capital formation and a powerhouse for the U.S. economy.**

Most Americans today now recognize that defined contribution (DC) workplace savings programs like the 401(k) are powerful vehicles for building private, personal retirement assets. When combined with the bedrock benefits of Social Security, U.S DC savings plans have proven successful in replacing working income and delivering outcomes superior to those enjoyed by previous generations of American workers.

Less well understood is the vital role of the U.S. retirement finance system in powering the American economy. In the generations since the Second World War, defined benefit (DB) pensions, and more recently DC savings plans have evolved into an investment system unique in the world. Comprising more than $28 trillion in assets under management and growing by 6 percent annually net of redemptions, U.S. pension funds and retirement savings accounts own fully a third of U.S. stock and bond markets.

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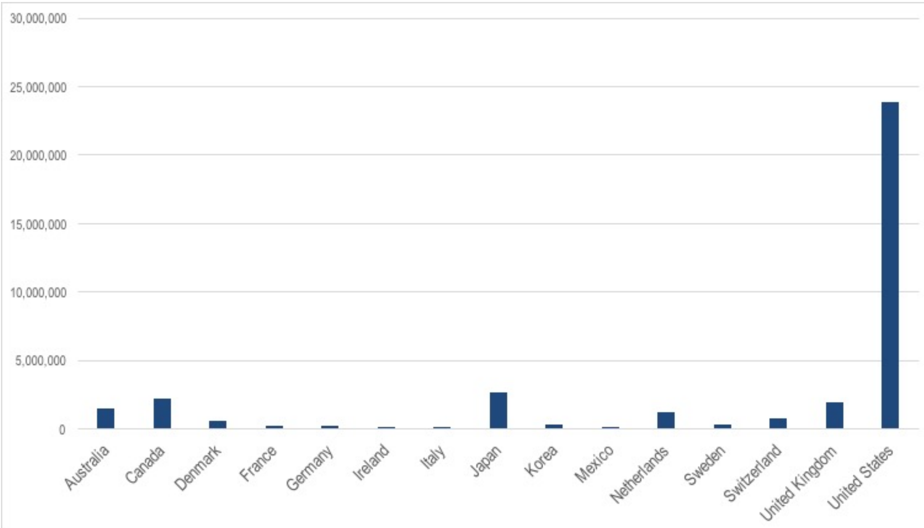
U.S. retirement assets are by far the largest dedicated asset pool on earth – no other nation comes close. U.S. funded pension assets account for fully 80 percent of the $35 trillion in retirement assets controlled by the world's top 19 pension markets. The U.S. system of funded retirement finance is seven times the size of the second largest market, Japan[i].

Large global economies like Germany, France and Italy have only negligible levels of funded pensions or retirement savings. For the most part, these nations finance current retirees with taxes collected from current workers in what is known as a "Pay as You Go" (PAYGO) system. In an era of accelerating global aging, advancing longevity and a declining support ratio (roughly the ratio of workers-per-retiree), PAYGO systems grow more actuarially challenged by the year.




By contrast, America's pool of retirement finance assets is vast, robust and growing at a healthy clip – 6.85 percent annually, net of redemptions, over the past 30 years – notwithstanding substantial financial market corrections in 1988, 2000 and 2008[ii].

And U.S. retirement assets are extraordinarily stable. For example, following the market dislocation of the global financial crisis in 2008, few American retirement investors sold their positions under duress. Instead, tens of millions of workers held firm and continued investing – week-by-week, paycheck-by-paycheck. In this way, U.S. workplace savings plans, in aggregate, constitute a masterpiece of dollar-cost averaging. After the market correction of 2008-2009, it took only two years to recoup losses. And in the decade since, the pool of U.S. retirement finance assets has grown by an average of $1.3 trillion per year.[iii]

## Investment Scale & Quality

The economic impact of U.S. workplace savings plans derives not only from the massive scale of savings, but also from the quality of their investment allocation. Workplace savings are socked away in all manner of investment assets, ranging from government debt and private fixed income, to equities and even some alternative assets. But with over 80% of American workplace savers investing in target date funds (TDFs) that evolve their exposures from equities to fixed income as they approach retirement, the U.S. retirement savings complex is vast, systematic, consistent and predictable.

Investment flows from U.S. workplace savings give the market a significant degree of stability

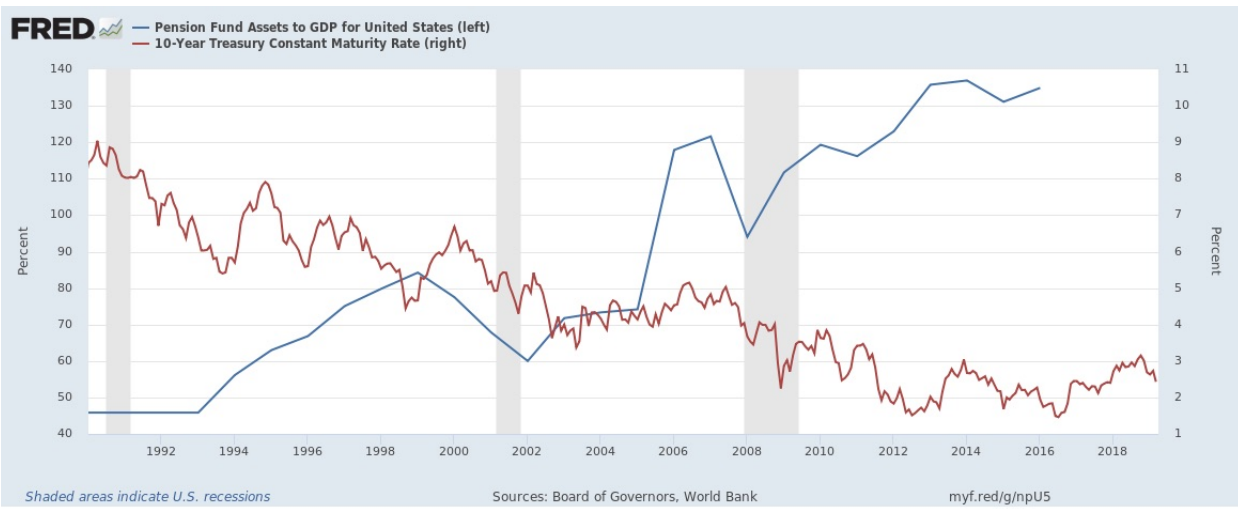
Investments in U.S. workplace savings plans are broadly calibrated across multiple asset markets in a stable and predictable way that provides a significant measure of stability. And because retirement assets are "patient" capital allocated against a multi-decade investment horizon, they are the opposite of volatile "hot" investment flows that jump in and out of markets pursuing – and often exacerbating – volatility. In this way, workplace retirement savers not only derive benefit from the market's capacity to grow their savings, they also help define the overall market through steady, consistent capital inflows that distribute risk and calm volatility.

U.S. pension funds and retirement savings comprise fully 80% of the assets in the top 19 pension markets

Workplace investing by some 80 million U.S. workers (25 million of whom make less than $50,000 per year)[iv] has created a kind of "people's capitalism" that owns and has defined capital markets of depth and liquidity unseen in any other global market. And these liquid capital markets are a primary reason why so many of the world's leading entrepreneurs and corporations come to the United States to establish and grow their businesses.

## Economic Intermediation: Capital Markets and Banks

Workplace savings plans in the U.S. rose in earnest in the 1980s, coinciding with profound macroeconomic trends such as a multi-decade decline in interest rates and growing securities markets. A generation of American workers "caught a wave", profiting from market expansion and, in the process, changing the very nature of U.S. economic intermediation.




These decades of declining interest rates and rising levels of retirement finance assets coincided with a transformation of the U.S. financial system which saw securities markets come to play a much larger role in corporate finance, as compared with traditional bank lending. This transformation can be seen in sharp relief by comparing U.S. and international models of financial intermediation. In the European Union, for example, roughly 80 percent of corporate debt takes the form of bank loans, with just 20 percent of company finance coming from bond markets; in the U.S., these proportions are reversed[1v].

Comparing stock market capitalization and bank assets as a proportion of GDP reveals that the United States (equity market/GDP ratio of 139%) is well over twice as "stock intensive" as Europe (equity market/GDP ratio of 58%), while Japan is three times more "bank intensive" (banking system/GDP ratio of 185%) than the U.S. (banking system/GDP ratio of 60%)[2vi]. While the U.S. and European Union have roughly the same GDP, U.S. stock and bond markets are roughly twice the size of their European counterparts.

Capital markets are intrinsically more flexible in funding innovation than are traditional banks because bank lending is predicated on the capital assets and collateral that can be offered by borrowers – rather than by the ambition and future potential of entrepreneurial strategies.

Banks, for example, are ill-equipped to finance startups. By nature, and by law, they must restrict their lending to well established, credit-worthy customers and avoid high-risk enterprises. Since they lend capital for and rarely take any equity stake, they usually don't take part in the "upside" of client investments. Banks are, however, very much exposed to the underperformance of their client enterprises should they be unable to repay their loans. It follows that economies that are primarily intermediated by banks reflect this bias, tending to favor of existing market champions and economic paradigms, rather than striving for disruption and new ways of doing business.

U.S. retirement savers provide the liquidity that incubates new ideas; they are also the ultimate owners of many startups.

The investment liquidity generated by American retirement savers plays a vital supporting role for entrepreneurs and their backers using capital markets to incubate and launch new ideas. While 401(k) plans generally don't participate in initial public offerings (IPOs), they provide deep liquidity for incumbent companies, allowing more risk-engaging investors to participate in IPOs. U.S. equity markets benefit greatly from this two-tier investment structure, supporting IPOs that, while highly variable year-to-year, have raised an average of $150 billion per annum over the past 15 years[vii].

Even when startups "fail", they play a vital role in keeping capital market and corporations healthy. By introducing new ideas and business practices they force incumbents to stay sharp and innovate. Many an S&P 500 company has opted to "self-disintermediate", shifting investment focus from mature, high margin business lines to emerging (and potentially larger) business segments – to avoid being pushed out of the way by energetic (and well-funded) new startups.

Without the robust investment liquidity provided by retirement savers, this level of capital market dynamism would be impossible to achieve. As workplace savings plans and individual retirement accounts constitute the largest source of investment liquidity in the United States, they have come to play an outsized and irreplaceable role in defining the deep and liquid capital markets that are uniquely found in the United States.

## Investment, Risk and Innovation

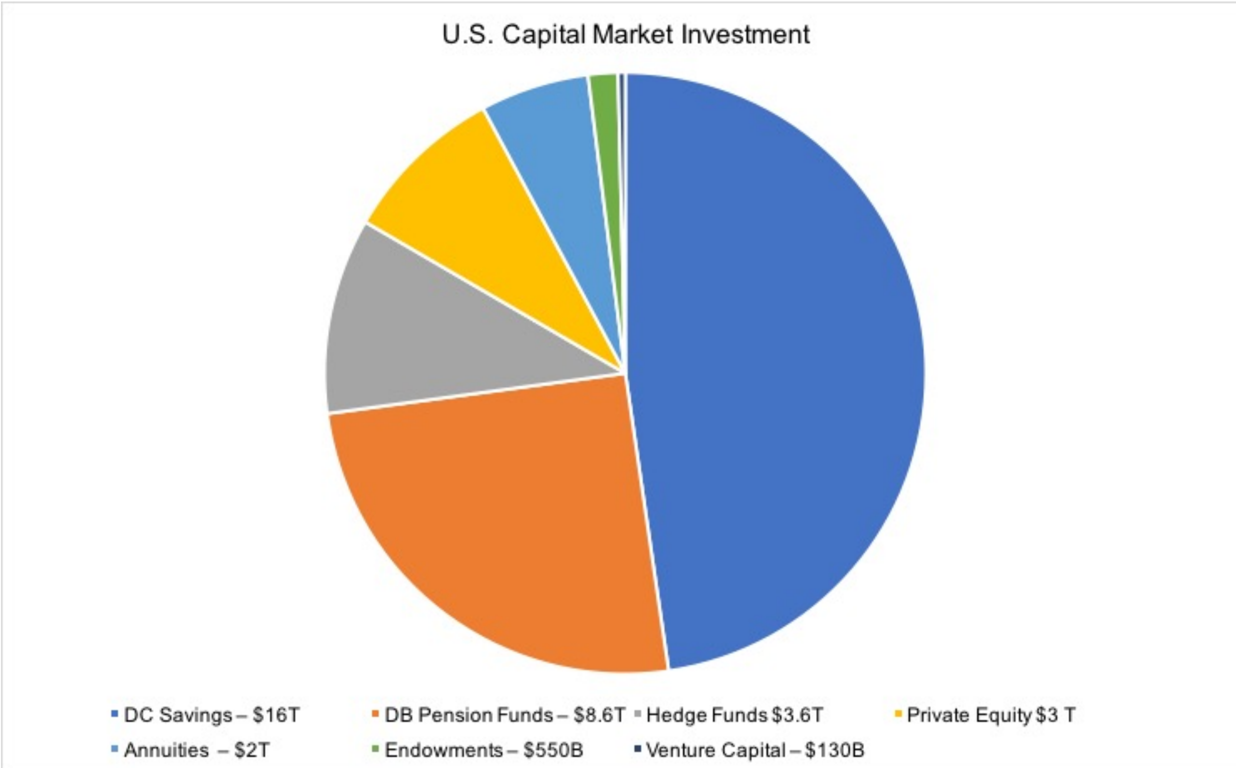
In any economic system, overall savings provide the fuel for new investment. But different forms of savings play distinct roles in the market. In the U.S., workplace savings assets have injected dynamism into capital markets by providing critical savings "ballast" for markets. This stable, "foundational" investment has, in turn, facilitated other, more risk engaging investment flows.

Workplace savings plans generally allocate assets in stock and bond markets, usually through target date funds and managed accounts that "buy and hold" investment positions for decades. Steady and stable workplace savings plans, by generating vast and predictable investment flows to every corner of the market, spur other investors – high net worth investors, hedge funds, private market funds, venture capital and sovereign wealth funds – that that seek higher returns by engaging risk more aggressively.

Workplace savings investment serve this stabilizing function in large measure because of their overwhelming scale. Defined contribution savings assets under management today are roughly equal to the value of all American pension funds, endowments, hedge funds, private equity funds, annuities and venture capital funds *combined*.

Defined contribution savings assets are roughly equal to the value of all U.S. pension funds, endowments and alternative assets *combined*

By providing a foundation for more entrepreneurial investment, U.S. workplace savings plans have served as a key driver for the innovative, disruptive transformative segments of American business – the Internet and e-commerce, digital/mobile telephony, next-generation energy, robotics, cloud computing, autonomous automobiles and drones, new technology for health and financial services and the emerging Internet of Things (IOT).




## Global DC Savings & Markets

The virtuous circle of U.S. workplace savings and growing capital markets has not gone unnoticed. All over the world, policymakers are seeking to foster an evolution from defined benefit to defined contribution retirement finance; and from bank intermediation to capital market finance.

International policymakers have come to understand that personal retirement savings and capital market development go hand-in-hand

In the European Union, the recent advent of the Pan-European Personal Pension Product (PEPP) as a vehicle for individual retirement savings is closely tied to the Europe Commission's agenda for Capital Market Union (CMU). The goal is to aggregate retirement savings from across the Union and deploy them in capital markets, just as U.S. workplace savings plans have done over the last generation.

Policymakers in Asia and elsewhere have likewise come to understand that the development of personal retirement savings and more robust capital market intermediation go hand-in-hand – and that this model, stress-tested and proven in the United States, will be the winning pathway to wealth building, capital formation, and economic innovation for the Twenty First Century.

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[i] OECD Pension Outlook, 2018

[ii] https://www.ici.org/research/stats/retirement/ret_18_q4
[iii] https://www.ici.org/research/stats/retirement/ret_18_q4
[iv] Internal Revenue Service, Statistics on Income (2015)
[v] http://openmarkets.cmegroup.com/10431/how-u-s-and-eu-capital-markets-are-differenthttp://openmarkets.cmegroup.com/10431/how-u-s-and-eu-capital-markets-are-different
[vi] Federal Reserve Economic data, cited in Bob Reynolds, "From Here to Security"
[vii] Renaissance Capital, US IPO Market 2015 Annual Review