Lessons from the Efforts to Manage the Shift Away from Defined Benefit Plans to Defined Contribution Plans in Australia, the United Kingdom, and the United States

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LESSONS FROM THE EFFORTS TO MANAGE THE SHIFT AWAY FROM DEFINED BENEFIT PLANS TO DEFINED CONTRIBUTION PLANS IN AUSTRALIA, THE UNITED KINGDOM, AND THE UNITED STATES

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ABSTRACT

This Article examines what lessons may be learned from examining how Australia, the United Kingdom, and the United States have tried to manage the shift away from defined benefit plans towards defined contribution plans. This shift has fundamentally changed the relationship between workers and the financial industry. While defined contribution plans provide employees with some advantages over defined benefit plans (e.g., portability, early vesting, greater autonomy), they also force employees to manage certain risks (longevity risk, investment risk) that they are ill prepared to manage. In addition, the differences in the way funds in defined contribution plans and defined benefit plans are managed affects the distribution of funds within financial markets that is potentially damaging to the economy. For example, these differences can lead to decreases in efficient allocation of investments and the creation of asset bubbles. These factors played a role in the recent financial crisis and, if left unaddressed, may contribute to future financial crises.

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Introduction

Pensions have played an important role in the financial sectors of Australia, the United Kingdom and the United States. Assets held in pensions were roughly equivalent to two-thirds or more of the annual gross domestic product (GDP) of each nation as illustrated in Figure 1. In addition, Australia, the United Kingdom, and the United States held over 80 percent of the total financial assets invested in funded pensions amongst the OECD countries.

Figure 1: Financial Assets Held in Pensions as a Percent of GDP from 2001 to 2012

Pensions in these countries generally fit within the three pillar framework that the World Bank articulated in 1994 when it published Averting the Old Age Crisis: Policies to

3 OECD Funded Pension Indicators, supra note 1.
PROTECT THE OLD AND PROMOTE GROWTH. The pillars discussed in that publication are: Pillar I - a publicly managed pension system that requires mandatory participation from all members of society but is only aimed at alleviating poverty, not providing a comfortable retirement; Pillar II - a privately managed pension system that ideally would cover all members of society; and Pillar III - voluntary savings by individuals.

This Article focuses on private pensions, which fit within Pillar II of this scheme. Private pensions rose in importance in the economies of these nations over the past 150 years. For much of that period, however, the defined benefit plan was the dominant type of private pension.

A defined benefit plan is a pension plan offered by an employer to an employee under which the employer makes contributions to the plan and the plan guarantees to pay the employee a specific benefit upon retirement. Usually, the benefit confer on the employee is an annuity from the date of the employee’s retirement from his job with the employer or from the date on which the employee turns a particular age (e.g., 55, 60 or 65) until the date of his death. Sometimes a defined benefit plan will pay an employee a lump sum upon retirement rather than paying an annuity. Some defined benefit plans provide additional benefits, like healthcare, in connection with the annuity.

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5 Id. at 15-16.
6 See discussion infra Part II and accompanying notes.
7 See discussion infra Part II and accompanying notes.
8 29 U.S.C §1002(35) (definition of defined benefit plan under U.S. federal law).
9 An annuity is the payment of a fixed sum of money paid to an individual each year, usually for the rest of his life. In the case of most defined benefit plans, the annuity payments are based upon percentage of an employee’s salary. For example, a company might pay 2 percent of an employee’s final salary with the company for each year that the employee worked for the company. Thus, an employee who worked for the company for 20 years and whose salary in his last year with the company was US$50,000 would receive annual pension payments of US$20,000 from the date of his retirement for the rest of his life.
In order to have sufficient funds to fulfill this promise to the employee, the employer will provide a certain amount of money annually to the pension plan to invest with the expectation that the invested funds will grow sufficiently to cover the future pension obligations. Normally, defined benefit pension plans invest in a variety of assets, although a large percentage of them are in financial products, such as stocks, bonds, commodities, and derivatives. Under a defined benefit plan, the employer and the pension plan face the risk that employees will live longer than originally anticipated using actuarial data and that the pension plan funds will not be sufficient to cover the employer’s and the pension plan’s pension obligations to the employee.

Within the last thirty years, however, defined contribution plans have risen in importance and are displacing defined benefit plans. Defined contribution plans are pension plans under which an individual or his employer or both make contributions an account for the individual’s account under the plan. The funds in the account generally are invested in mutual funds or similar financial products. The individual is entitled to the net amount in the account, which would equal his contributions plus or minus the gains or losses from the account’s investments.

This shift in the types of private pensions offered is having dramatic impact on the workers and the financial sectors in each of these nations. Due to the increasing importance of defined contribution plans, a larger percentage of the populations of Australia, the United Kingdom, and the United States are investing in financial products, either directly or indirectly, than they previously did. This means that investment risk is being shifted from business firms onto households.

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10 29 U.S.C §1002(34)(definition of defined benefit plan under U.S. federal law).
11 In some countries, public pension plans also include both defined benefit and defined contribution plans. This Article will not be discussing these plans, although some of the private plans’ effects would also arise in the case of the public plans.
12 Broadbent, Palumbo, and Woodman, supra note 2, at ii.
This shift is problematic for several reasons. First, households lack the financial literacy of institutional investors and are subject to certain behavioral biases to which institutional investors are not prone. Many employees suffer from inertia and leave their funds in the default option in their plans, even when these options are not appropriate for their investment goals. Employees also have a tendency to overinvest in the stock of their employer. Second, defined contribution plans do not currently have access to many of the long-term assets in which defined benefits plans invest, which hinders market efficiency. Third, defined contribution plans also tend to be subject to higher administrative fees than defined benefits plans, which also impairs their efficiency and reduces the amount available for an individual to live on when they retire. As a result, consumer protection considerations should play a greater role in the regulatory structures of Australia, the United Kingdom, and the United States than they do in nations that still primarily rely upon defined benefit plans for retirement.

Part I explains why a comparison of Australia, the United Kingdom, and the United States might be useful. Part II provides a brief history of the rise of pensions in Australia, the United Kingdom, and the United States and the shift away from defined benefit plans to defined contributions that is occurring in each country. Part III then describes the regulatory regimes in each nation that have contributed to this shift. Part IV then discusses the impact that this shift is having on workers, the financial industry, and the economies of these nations. Finally, Part V discusses what lessons might be drawn from the experiences of all three nations and what steps might be taken to mitigate the negative effects of the shift to defined contribution plans.

13 Id. at 42-43.
14 Id. at iii.
15 Id.
16 Id. at 43.
17 Id.
I. Why Compare Australia, the United Kingdom and the United States?

Limiting the comparison to just the United States, the United Kingdom, and Australia makes sense for several reasons. First, all three nations are common law countries. Common law countries enjoy greater similarities with each other with regard to the treatment of property, contracts, and the regulation of financial services than they enjoy with civil law jurisdictions.\(^\text{18}\)

Second, even though the population sizes of all three nations are vastly different, their economies are comparable when one looks at gross domestic product (GDP) per capita, the percentage of the population that is 65 or older, unemployment rates, the portion of GDP derived from financial services, the growth in their housing markets, and homeownership rates.\(^\text{19}\) As Figure 2 illustrates, the population of the United States is about fourteen times as large the population of Australia and five times as large as the population of the United Kingdom.\(^\text{20}\)

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\(^{19}\) For a comparison of the economies in these countries, see *infra* notes 19-61 and accompanying text.


The portion of the population that is age 65 or older in Australia, the United Kingdom, and the United States is roughly the same and has grown over time, as shown in Figure 3. In 1960, the percentage of the population that was age 65 or older in Australia, the United Kingdom, and the United States was 8.5 percent, 11.6 percent, and 9.2 percent, respectively. By 2013, the percentage of the population that was 65 or older in Australia, the United Kingdom, and the United States was 14.4 percent, 17.3 percent, and 14.1 percent, respectively. The portion of the population age 65 or older is important to know when evaluating private pension plans because it is that portion of the population that is most likely to be living off of such plans or at least using them to supplement the funds that they receive from the public pensions plans. The greater the percentage of the population of a country that is age 65 or older, the more important pensions are going to be for that country’s economy.

Thus, the fact that the percentage of the population in Australia, the United Kingdom, and the United States is roughly equivalent means that pensions will likely play similar roles in all three economies. In addition, the importance of pensions to the economies of all three nations has grown over time as the percentage of the population that is age 65 or older has grown.

23 Id.
24 Id.
Figure 3: Percentage of the Population Age 65 or Older\textsuperscript{25}

The importance of pensions to the economies of all three nations is also illustrated by the average effective age of retirement for both men and women in all three countries. When people retire, they usually begin living off of their pension income because they no longer have a salary to rely upon. Again, the average effective age of retirement for both men and women in all three nations has been roughly comparable in recent years as shown in Figures 4 and 5.\textsuperscript{26} Between the early 1980s until roughly 2003, the average effective age of retirement for men, was about two to three years higher in the United States than in Australia and the United Kingdom while the average effective age for women was between three to eight years higher in the United States than in Australia and the United Kingdom.\textsuperscript{27}

\begin{itemize}
\item \textsuperscript{25} \textit{Id.}
\item \textsuperscript{26} OECD, Stat Extracts, Average Effective Age of Retirement for Men, \url{http://www.oecd.org/els/public-pensions/ageingandemploymentpolicies-statisticsonaverageeffectiveageofretirement.htm} (last visited July 23, 2014)[hereinafter OECD Effective Age of Retirement for Men]; OECD, StatExtracts, Average Effective Age of Retirement for Women, \url{http://www.oecd.org/els/public-pensions/ageingandemploymentpolicies-statisticsonaverageeffectiveageofretirement.htm} (last visited July 23, 2014) [hereinafter OECD Effective Age of Retirement for Women].
\item \textsuperscript{27} OECD Effective Age of Retirement for Men, \textit{supra} note 26; OECD Effective Age of Retirement for Women, \textit{supra} note 26.
\end{itemize}
The life expectancies for men and women at age 65 are also comparable and are projected to increase at roughly similar rates between 2010 and 2060-2065 as shown in Figures 6 and 7. The information on life expectancies at age 65 is important because it indicates how long people in Australia, the United Kingdom, and the United States will need pension funds to live on. In the case of defined benefit plans, longer life expectancies at age 65 mean the more money that the pension plan must have invested in order to meet its future payment obligations. Similarly, in the case of defined contribution plans, longer life expectancies at age 65 mean that

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28 OECD Effective Age of Retirement for Men, supra note 26.
29 OECD Effective Age of Retirement for Women, supra note 26.
individuals need to have saved and invested greater sums over the course of their working lives or risk outliving the funds in their defined contribution plans.

**Figure 6: Life Expectancies for Men at Age 65**

![Chart showing life expectancies for men at age 65 in Australia, United Kingdom, and United States.]

**Figure 7: Life Expectancies for Women at Age 65**

![Chart showing life expectancies for women at age 65 in Australia, United Kingdom, and United States.]

Not only are the demographic characteristics of the populations in Australia, the United Kingdom, and the United States comparable, but the economies of Australia, the United

31 Id.
Kingdom, and the United States share many similarities as well. Economic equivalence is important when doing a comparison of pension plans across countries because it means that the populations have roughly the same income levels that they could be using to invest in defined contribution plans or that their employers would be using when calculating future payouts under a defined benefit plan.

One of the most common metrics used for comparing the standard of living within countries and the strength of the economy among countries is gross domestic product (GDP) per capita. The GDP per capita within the United States, the United Kingdom, and Australia are roughly similar to each other and have experienced similar fluctuations for almost thirty years as shown in Figure 8 below.\textsuperscript{32} Figure 8 shows that the difference in the GDP per capita between the United Kingdom and the United States has remained at about $10,000 since 1985 with Australia’s GDP per capita falling in between the two but usually only a couple of thousand dollars more than the United Kingdom’s GDP per capita. This data indicates that the three nations enjoy relatively comparable standards of living.

\textsuperscript{32} See OECD, Stat Extracts, \texttt{http://stats.oecd.org/Index.aspx} (last visited July 24, 2014) (follow “National Accounts” hyperlink under “Browse Themes”; then follow “Annual National Accounts” hyperlink; then follow “Main Aggregates” hyperlink; then follow “Gross domestic product” hyperlink; then follow “GDP per head, US $, constant prices, constant PPPs, reference year 2005” hyperlink) [hereinafter OECD, Stat Extracts, Gross Domestic Product].
These countries also have generally had similar level of unemployment in recent years. The unemployment rates within these countries have converged within the past decade as illustrated in Figure 9. In addition, they have tended to experience comparable cycles of unemployment.

Unemployment is relevant to a comparison of pension plans because unemployment hinders or undermines the ability of individuals to save for retirement in defined contribution plans. In addition, unemployment undermines or limits the benefits that an individual’s ability to might receive from a defined benefit plan. Most defined benefit plans require that an employee work for the employer for a minimum period of time before he is entitled to receive payments

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33 Id.
35 Id.
from the defined benefit plan. When an employee becomes entitled to receive payments under a defined benefit plan, his rights to those payments are said to have “vested.” If an employee is laid off or fired before his rights have vested, then he will receive nothing even if his employer had a defined benefit plan for its employees. In addition, if an employee is laid off or fired after his rights have vested but before he has worked long enough to receive an annual pension payment under the defined benefit plan equal to the maximum permitted, then his future payments from the defined benefit plan will be smaller than what they would have been if he had not lost his job. The unemployment rate provides some indication of the number of working age adults who will have had their ability to invest in a defined contribution plan or receive payments from a defined benefit plan negatively impacted during the course of a particular year.

**Figure 9: Annual Harmonized Unemployment Rate**

![Graph showing annual harmonized unemployment rate from 1983 to 2013 for Australia, United Kingdom, and United States.](image)

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36 *Id.*
In addition, the financial sectors in Australia, the United Kingdom, and the United States are similar. They comprise about the same portion of their countries’ GDP and they have similar levels of development. Between 2000 and 2012, the financial services and insurance sector made up an average of 8.4 percent of Australia’s Gross Value Added (GVA)\(^{37}\) and an average of 8.2 percent of the U.K.’s GVA.\(^{38}\) Between 2000 and 2013, financial services and insurance comprised an average of 7.1 percent of the United States’ GDP.\(^{39}\) The World Economic Forum has consistently ranked these three nations as among the top five countries in terms of financial development in its Financial Development Reports between 2009 and 2012.\(^{40}\) In addition, all three nations undertook significant deregulation of their financial services sectors beginning in


the late 1970s and early 1980s, which ultimately led to the adoption of legislation to significantly restructure how each nation regulated financial services in the late 1990s.  

The size and development of a nation’s financial services sector matters when comparing the role of pension plans in the economy because these factors can affect the types of financial services in which pension plans may invest and the liquidity of the financial assets held by such plans. Pension plans in the Australia, the United Kingdom, and the United States may invest in the widest range of financial products and services available anywhere in the world. In addition, the markets in which these financial products and services are traded are some of the most liquid in the world. As a result, a pension plan manager who is managing a defined benefit plan for hundreds of workers or an individual who is managing his own personal defined contribution plan should be able to sell or buy many financial products and services quickly and easily in Australia, the United Kingdom, and the United States. The same cannot be said for nations with smaller financial services sectors and which are less developed than Australia, the United Kingdom, and the United States.

The housing markets in Australia, the United Kingdom, and the United States also share some common features. All three nations have had relatively similar home owner occupancy rates for more than twenty-five years as shown in Figure 10. They have experienced significant growth in their housing prices over the last twenty-five years as illustrated in Figure 11. Having comparable housing markets is important because of the prominent role that the housing plays in individuals' asset portfolios. In the United States, the equity value of an individual's primary

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residence comprises the largest share of his asset portfolio for any single asset class. Non-financial assets (e.g., dwellings and land) comprise over half of wealth of households in Australia and the United Kingdom.

**Figure 10: Owner-Occupancy Rates**

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43 Isabelle Ynesta, Households’ Wealth Composition Across OECD Countries and Financial Risks Borne by Households, Fin. Market Trends 7 (2008). Non-financial assets comprised over 75 percent of the wealth of households in Australia and over 64 percent of the wealth of households in the United Kingdom. Id. Land, not dwellings, makes up the largest share of non-financial assets held by households. Id.

Another reason to compare how Australia, the United Kingdom, and the United States regulate pensions is because the regulatory structure to supervise the financial services industry and pensions differs significantly in each of these countries. The United States has over 115 separate federal and state regulators covering some aspect of the financial services industry, such as banking, securities, or insurance. Most of these regulators focus on both prudential regulatory issues and market conduct regulatory issues. The goals of these two types of regulation can sometimes conflict. Regulations that might protect consumers can decrease a firm’s profits and may increase the likelihood that the firm will get in financial difficulties or become insolvent. Conversely, a regulation to require a firm, like a bank, to keep more capital in order to meet their future obligations and maintain their solvency might hurt consumers because the firm will have fewer funds that they could use to offer loans to consumers for purchases.

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47 Prudential regulation focuses primarily on the solvency of the institutions being regulated and how to minimize the downside risks if an institution becomes insolvent. Market conduct regulation focuses primarily on the regulation of markets in which financial products and services are offered, sold, or traded in order to protect the market participants, including consumers and investors.
In part because of the potential conflicts between prudential and market conduct regulations, Australia employs a twin peaks approach to financial regulation, in which it has only two financial regulators -- one agency to focus on prudential regulatory issues and another agency to focus on market conduct regulatory issues.\textsuperscript{48} Unlike the U.S. financial regulators, Australia’s two financial regulators are responsible for the entire financial services industry rather than just narrow segments of it.\textsuperscript{49}

For most of the period between 1997 and 2013, the United Kingdom provided a third alternative for how to regulate financial services.\textsuperscript{50} It had a single regulator, the Financial Services Authority (“U.K. FSA”), who was responsible for both prudential and market conduct regulation for the entire financial services sector.\textsuperscript{51} The Conservative-Liberal Democrat Coalition government that came to power in the United Kingdom as a result of the 2010 general elections, decided that the U.K. FSA had failed to properly supervise the financial services industry prior to the 2008 financial crisis. The Conservative-Liberal Democrat Coalition felt that a twin peaks approach might work better, particularly if the new Prudential Regulation Authority was part of the Bank of England.\textsuperscript{52} Since 2013, the United Kingdom has employed a twin peaks approach to financial regulation.\textsuperscript{53}


\textsuperscript{49} Id.


\textsuperscript{51} Group of Thirty, \textit{supra} note 48, at 28-29.


\textsuperscript{53} H.M. Treasury Press Release, \textit{supra} note 50.
Finally, these nations provide an interesting point of comparison because Australia has had a very different experience during the recent financial crisis than the United States and the United Kingdom. For example, Australia did not lapse into a recession as a result of the recent financial crisis as illustrated in Figure 12 below.\textsuperscript{54} The United Kingdom’s recession was longer than the United States’ recession. The United Kingdom’s recession began in second quarter of 2008 and did not end until the fourth quarter of 2009.\textsuperscript{55} The United States did not go into recession until the third quarter of 2008 and exited it in the third quarter of 2009.\textsuperscript{56}

\textbf{Figure 12: Quarter-to-Quarter Change in GDP}\textsuperscript{57}

Why does the performance of these three nations during the recent financial crisis matter? The performance of these nations during the crisis has translated to some degree in the way that


\textsuperscript{55} See OECD, Stat Extracts, Quarterly Growth Rates, \textit{supra} note 54.

\textsuperscript{56} Id.

\textsuperscript{57} Id.
The public in each nation reacted to the crisis and modified their savings and investment behavior in the wake of the crisis.

The crisis altered to different degrees the way that many individuals in Australia, the United Kingdom, and the United States managed their money and their willingness to save or invest for retirement. A Fidelity Investments survey in 2013 found that, as a result of the crisis, 49 percent of the respondents reported that they had reduced their personal debt and 42 percent stated that they had increased their contributions to their defined contribution pension plans at work, to their individual retirement accounts (“IRAs”), or their health savings plans. A 2010 Economist Intelligence Unit report found that the recent financial crisis had led over 60 percent of private investors and over half of corporate investors in the United Kingdom to view investing in stocks and bonds as riskier than they believed it was prior to the crisis. Even though Australia suffered less than the United Kingdom and the United States, attitudes towards saving and investing were still affected, although possibly to a lesser degree than those in other countries. According to the Reserve Bank of Australia, the savings rate in Australia increased following the 2008 financial crisis and five years later Australians are continuing to “demonstrate greater prudence in managing their finances than they did a decade ago.” These changes in attitudes affect not only how much individuals in Australia, the United Kingdom, and the United States are willing to save or invest for retirement in a defined contribution plan but what financial products that they will use to save or invest in their defined contribution plan.


59 Fidelity Press Release, supra note 58.

60 Economist Intelligence Unit, supra note 58, at 10.

61 RBA 2011, supra note 58, at 43-44; RBA 2014, supra note 58, at 35.
II. A Brief History of Private Pensions and the Shift to Defined Contribution Plans

Prior to the mid-19th century, most workers continued to work until they chose to stop or were no longer capable of working.62 Pensions generally did not exist, except for certain types of government workers.63 While the first pension plan in the United States was created in 1759, the first corporate pension plan was not created until 1875.64 The rise in the concept of pensions is dramatically illustrated in Figure 13, which shows the frequency of the use of the word "pension" in the 5.2 million books found in Google Labs N-gram Viewer database.65

Figure 13: Use of the Word "Pension" in Books From 1700 to 2000

63 Blackburn, supra note 62, at 36-49.
64 PENSION SYSTEMS AND RETIREMENT INCOMES ACROSS OECD COUNTRIES 346 (Richard Disney and Paul Johnson, eds., 2001).
65 See Google Labs N-gram Viewer, http://ngrams.googlelabs.com/ (type in "pension" following the phrase "Graph these case-sensitive comma-separated phrases", type in "1700" following "between" and "2000" following "and", select "English" as the "corpus" and select a smoothing of "3"). For information about Google Labs N-gram Viewer, see Culturomics, http://www.culturomics.org/Resources/A-users-guide-to-culturomics. The 5.2 million books in the Google Labs N-gram Viewer database represent only about 4% of the books ever published. Id.
66 See Google Labs N-gram Viewer, http://ngrams.googlelabs.com/ (type in "pension" following the phrase "Graph these case-sensitive comma-separated phrases", type in "1700" following "between" and "2000" following "and", select "English" as the "corpus" and select a smoothing of "3"). The data from 1800 to 2000 is more reliable than the data before 1800 because few books were published prior to 1800. See About Google Labs NGram Viewer, http://ngrams.googlelabs.com/info (noting that only 500,000 books in English were published prior to the 19th century); Culturomics, http://www.culturomics.org/Resources/A-users-guide-to-culturomics. As a result, a spike in years prior to 1800 can be caused by as little as one book containing the term being searched. See About Google Labs NGram Viewer, http://ngrams.googlelabs.com/info
In the late 1800s, corporations began to limit the number of older workers on their staffs by restricting the hiring of older workers and instituting mandatory retirement schemes that forced workers who had reached a given age to retire.\textsuperscript{67} Corporations wanted younger and more efficient workers due to the increase competition brought about by industrialization and the increasing national markets created by railroads.\textsuperscript{68} Some corporations provided pensions as a means of encouraging workers to voluntarily retire at a given age and to mitigate any feelings of guilt that owners or managers might feel about firing older workers who lack adequate resources to live on.\textsuperscript{69} Seebohm Rowntree, one of the heirs and directors of Rowntree's, a British chocolate manufacturer, captured these sentiments in the statement that he made when his family's business introduced a pension plan. He noted:

Many firms may hesitate to adopt a Pension Scheme . . . but it is probable that these very firms carry heavy costs in 'hidden pensions' without realising the fact. If a firm establishes a liberal pension scheme it will doubtless at the same time fix a definite retiring age and will thus never find itself with a number of older workers of low working capacity drawing full pay . . . such employees are very costly, not only does the firm lose on them individually but their presence tends to lower the pace and lessen the output of the whole shop . . . But they are kept on because they have worked faithfully for a great number of years and the management does not care to dismiss them.\textsuperscript{70}

\textsuperscript{67} Blackburn, \textit{supra} note 62, at 48; Graebner, \textit{supra} note 62, at 13-15.
\textsuperscript{68} Blackburn, \textit{supra} note 62, at 48; Graebner, \textit{supra} note 62, at 13-15.
\textsuperscript{69} Blackburn, \textit{supra} note 62, at 48; Graebner, \textit{supra} note 62, at 13-15.
In addition, corporations provided pensions to reduce turnover by providing an incentive for productive workers to remain with the same employer for long periods of time in order to collect their pensions.\textsuperscript{71}

Pressure for more corporations to offer pensions arose from unions, who viewed the state pensions offered in Australia, the United Kingdom, and the United States as being too paltry to provide a comfortable retirement.\textsuperscript{72} The fact that businesses in these nations were allowed to deduct the costs of providing pensions to their workers from their taxes as a business expense also aided the growth of private pensions.\textsuperscript{73} The provision of private pensions in the United States also received a significant boost from World War II and the wage controls that the U.S. government instituted during the war.\textsuperscript{74} Pensions, like other fringe benefits including healthcare, were exempt from these wage controls.\textsuperscript{75} As a result, providing employees with pensions offered employers a means of getting around those controls and enable them to attract better workers. At the beginning of U.S. involvement in World War II in 1940, private pensions covered 4.1 million workers but by the end of the war, the number of workers covered by private pensions had increased 50 percent to 6.4 million.\textsuperscript{76} In the postwar years, employers continued to offer fringe benefits, including pensions as a means of attracting workers. Between 1945 and 1950, the number of workers covered by private pensions had again increased by roughly 50 percent from 6.4 million in 1945 to 9.8 million in 1950.\textsuperscript{77}

\textsuperscript{71} Graebner, supra note 62, at 127-128.
\textsuperscript{72} See Blackburn, supra note 62, at 62, 270.
\textsuperscript{73} Blackburn, supra note 62, at 63-64.
\textsuperscript{74} Graebner, supra note 62, at 216-217.
\textsuperscript{75} Id. at 216.
\textsuperscript{76} Id.
\textsuperscript{77} Id.
Prior to the 1980s, most government and corporate pensions consisted of defined benefit plans, under which the government or the business paid a fixed amount per annum to a retired worker until his death. 78 Corporate defined benefit plans usually calculated the amount paid based on the years of service and the salary earned while working for the firm. 79 Defined contribution plans, in contrast, allowed an employee or his employer or both to set aside certain funds in an account for the benefit of the employee at retirement. 80 Defined contribution plans usually contain limitations on the amounts that the employee or employer can place in these accounts, when the funds can be withdrawn without penalty, what types of financial instruments the funds could be invested in while in the account, and, in some countries, what types of financial instruments the funds could be invested when withdrawn from the account. 81 The rise in this distinction between pension plans that are defined benefit plans and those that are defined contribution plans is reflected in the use of these terms, as illustrated in Figure 14.

Figure 14: Use of "Defined Benefit Plan" and "Defined Contribution Plan" in Books From 1850 to 2000 82

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78 Blackburn, supra note 62, at 79.
79 Id. at 48, 79.
80 Id. at 79.
81 Blackburn, supra note 62, at 79
82 Google Labs N-gram Viewer, http://ngrams.googlelabs.com/ (type in "defined benefit plan, defined contribution plan" following the phrase "Graph these case-sensitive comma-separated phrases", type in "1850" following "between" and "2000" following "and", select "English" as the "corpus" and select a smoothing of "3")
All three nations are increasing relying on defined contribution pension schemes or individual retirement account-type plans rather than defined benefit plans.\footnote{Broadbent, Palumbo, and Woodman, \emph{supra} note 2, at 13-17.} Australia has gone the farthest in this regard. In 1992, Australia enacted the Superannuation Guarantee (Administration) Act 1992\footnote{Superannuation Guarantee (Administration) Act 1992, Commonwealth Consolidated Acts (2010), available at: \url{http://www.austlii.edu.au/au/legis/cth/consol_act/sga1992430/}} and the Superannuation Guarantee Charge Act 1992\footnote{Superannuation Guarantee (Administration) Amendment Act of 2012 (2012); Commonwealth Consolidated Acts (2010), supra note 84.}, which required all employers to make a tax deductible contribution equal to a fixed percentage of an employee's salary into a superannuation plan\footnote{According to the Association of Superannuation Funds of Australia (“ASFA”), “superannuation” is” a long-term savings arrangement which operates primarily to provide income for retirement.” ASFA Dictionary of Superannuation, \url{http://www.superannuation.asn.au/Dictionary.aspx} (search “superannuation”) (last visited Aug. 2, 2014). ASFA defines a “superannuation fund or plan or scheme” as “usually a trust fund, established primarily to provide benefits for members on their retirement, or alternatively, on their resignation, death, disablement or other specified events.” \textit{Id}. (search “superannuation fund or plan or scheme”) (last visited Aug. 2, 2014). According to Investopedia, a “superannuation plan” is often simply referred to as a “company pension plan.” Investopedia, Superannuation, \url{http://www.investopedia.com/terms/s/superannuation.asp}.} on behalf of their employees or pay a charge equal to the shortfall in contributions for individual employees, an interest fee, and an administration fee.\footnote{Superannuation Guarantee (Administration) Act of 1992, \emph{supra} note 84, at §§16-17; Superannuation Guarantee Charge Act 1992, \emph{supra} note 85, at §§5-6.} As a result of legislation enacted by the Australian government in 2012, the mandatory contribution rate is being raised incrementally from 9 percent in 2012 to 12 percent by July 1, 2019.\footnote{Superannuation Guarantee (Administration) Act 1992, \emph{supra} note 84, § 19(2) (as amended by the Superannuation Guarantee (Administration) Amendment Act of 2012 (2012) § 3).} Individuals may make additional contributions to the superannuation plans up to certain limits. Beginning on July 1, 2014, an individual could contribute up to AUSS$30,000 (about US$28200) to his superannuation account before tax and up to AUSS$180,000 (about US$169,200) after tax.\footnote{Austl. Govt., Austl. Taxation Off., Key Superannuation Rates and Thresholds, Concessional Contribution Cap, \url{https://www.ato.gov.au/rates/key-superannuation-rates-and-thresholds/?page=3#Concessional_contributions_cap}; Austl. Gov’t., Austl. Taxation Off., Key Superannuation Rates and Thresholds, Contribution Caps, Non-concessional Contribution Cap, \url{https://www.ato.gov.au/Rates/Key-superannuation-rates-and-thresholds/?pa=&page=5#Non_concessional_contributions_cap}; Fed. Res. Statistical}
The superannuation laws cover all employees earning a certain minimum amount, currently set at AU$450 (about US$420) or more per month. In 2005, Australia's parliament amended the superannuation laws to allow an employee to designate any complying superannuation fund under the law into which the employer's contributions must go on behalf of the employee.

As a result of this mandatory pension scheme, approximately 90 percent of Australia's workforce was covered by a pension by 2002. Most employers in Australia elected to make their required contributions to defined contribution plans because it was easier to meet their superannuation obligations using such plans than it was using defined benefit plans and defined contribution plans were less expensive than defined benefit plans.

The shift to defined contributions has been dramatic. In the early 1980s, defined benefit plans comprised over 80 percent of all of the pension plans in Australia. By 2005/2006, only a small minority of employees were covered solely by defined benefit plans in Australia, while 97 percent of the employees with pension plans had assets in defined contribution plans, either

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**Footnotes:**


92 Broadbent, Palumbo, and Woodman, supra note 2, at 14 n.30.

93 Superannuation History, supra note 91, at 5.

94 Id.
alone or in combination with a defined benefits plan.\textsuperscript{95} In addition, Australian superannuation funds held only AUS$183 billion (about US$124 billion) in 1993 but, by 2010, they held over AUS$1 trillion (about US$1.0122 trillion) and they are projected to hold AUS$6.1 trillion by 2035.\textsuperscript{96}

In the United States, the percentage of employees with some sort of pension plan has remained relatively constant over the past two decades while the percentage that have defined benefit plans has declined and the percentage that have defined contribution plans has risen. Figure 15 illustrates this. In 1990-91, the percentage of all workers with some sort of pension plan was 53 percent.\textsuperscript{97} In 2014, only 48 percent of private sector employees participated in some form of pension plan in the United States, although 65 percent had access to some form of pension plan.\textsuperscript{98} In 1990-91, slightly more of those with pension plans had a defined benefit plan rather than a defined contribution plan.\textsuperscript{99} Only 16 percent of private sector employees in the

\textsuperscript{95} Id.


\textsuperscript{99} See Pfuntner, supra note 97.
United States participated in a defined benefits plan in 2013 while 42 percent of all private sector employees participated in a defined contribution plan in 2013.\footnote{See U.S. Dept. of Labor, Bureau of Labor Statistics, Employee Benefits Survey, Retirement Benefits, March 2013, \url{http://www.bls.gov/necs/ebs/benefits/2013/benefits_retirement.htm} (under “Retirement benefits: Access, participation, and take-up rates” select “Private: Data Table” hyperlink). Some employees were allowed to participate in more than one type of plan. Thus, some employees participated in both a defined benefits plan and a defined contribution plan.}

Most employees with retirement plans work for medium and large size private firms.102 When one looks at just medium and large private establishments, the shift from defined benefit plans to defined contribution plans is even more apparent, as illustrated by Figure 16. The percentage of full-time employees in U.S. medium and large firms that participated in any pension plan declined from 91 percent in 1985 to 79 percent in 2013.103 During this period the percentage participating in defined benefit pension plans at these type of firms declined from 80 percent in 1985 to 27 percent in 2013 while the percentage participating in defined contribution plans grew from 41 percent in 1985 to 55 percent in 2013.104


Increasingly U.S. firms that offer defined contribution plans are switching to automatic enrollment since the Internal Revenue Service issued revenue rulings in 1998 and 2000 allowing employers to automatically enroll new and existing employees in defined contribution plans under certain circumstance. 106 About 40 percent of the Fortune 100 companies in the United

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105 Prior to 1988, data included establishments with 50, 100, or 250 or more workers, depending on industry, and coverage in the service industries was limited. Beginning in 1988, data included establishments with 100 or more workers in all private industries. "Private industry" excludes agriculture and private households. Dickerson, supra note 103; Bureau of Labor Statistics, Multiple Page Search, Employee Benefits Survey, supra note 103 (For data from 1985 to 1997, select "ML Medium and Large Private Establishments", then select "ALLRET00000 Percent of Employees Participating in All Retirement Plans", "DBINC00000 Percent of All Workers Participating in Defined Benefit Pension" and "DCINC00000 Percent of All Workers Participating in Defined Contribution Pension" and for data from 1999 to 2006, select "AP All Private Industry", then select "ALLRET20000 Percent of Employees In Establishments With 100 or More Workers Participating in All Retirement Plans", "DBINC20000 Percent of Workers In Establishments With 100 Or More Workers Participating in Defined Benefit Pension" and "DCINC20000 Percent of Workers In Establishments With 100 Or More Workers Participating in Defined Contribution Pension"); NCS Survey 2007, supra note 101, at 7-8; NCS Survey 2008, supra note 101, at 111-12; NCS Survey 2009, supra note 101, at 165-66; NCS Survey 2010, supra note 101, at 177-78; NCS Survey 2011, supra note 101, at 193-94; NCS Survey 2012, supra note 101, at 177-78; NCS Survey 2013, supra note 101, at 177-78.

States have automatic enrolment in a defined contribution plan for their employees. Under automatic enrollment, an employee is enrolled in the firm’s defined contribution plan if he fails to opt out within a set time period. Under certain circumstances, an employee who was automatically enrolled in the firm’s defined contribution plan may opt out at a later date, although they rarely do. The company must select a default contribution rate and a default fund in which to invest the employee’s contributions. On average, the default contribution rate for automatic enrollment plans is about 3 percent. In 2001, the default fund was usually a stable value or money market fund, but today it is more frequently a target-date fund, which offers a standard diversified portfolio of stocks, bonds, and other assets based on when an employee is expected to retire. Automatic enrollment has increased the participation rates in defined contribution plans in the United States.

Of the three nations, the United Kingdom has shifted the least towards defined contribution plans. Like the United States, less than half of the employees in the United Kingdom (only 46 percent) belonged to a private pension scheme in 2012. The United Kingdom has three categories of defined contribution plans: occupational money purchase plans, group personal pension plans, and individual personal pension plans. While the number of active members of defined contribution plans has not grown substantially in the past decade,
their share of the number of active members of any private pension plan has.\(^{114}\) The reason for this is the steady decline in the number of active members of defined benefit plans.\(^{115}\) This is illustrated in Figures 17 and 18. This trend is unlikely to reverse itself as most of the active members of U.K. defined benefit plans belong to closed plans, which are not admitting any new members.\(^{116}\)

**Figure 17: Millions of Active Members of U.K. Private Pension Plans\(^{117}\)**

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\(^{115}\) Id.

\(^{116}\) U.K. Off. Of Nat'l Statistics, Fewer Employees in Private Sector DB Pension Schemes (Oct. 28, 2010). Only 44% of active members of defined benefit plans are in open plans while 92% of active members of defined contribution plans are in open plans. Id.

\(^{117}\) ONS Pension Survey 2013, supra note 114, at 6 (Download chart associated with Figure 3). The U.K. Office of National Statistics ("ONS") changed the methodology that it used for these statistics in 2006. Thus, the ONS warned that comparisons between the data for the years prior to 2006 with the years following 2006 must be treated with caution. Id.
This trend in the United Kingdom away from defined benefit plans to defined contribution plans is likely to pick up steam in the future. The United Kingdom enacted two laws, the Pensions Act 2008 and the Pensions Act 2011, that are designed to get more people to save for retirement by requiring mandatory contributions for workers to a pension plan. The increased contributions from these laws will primarily be funnelled into defined contribution schemes.

The Pensions Act 2008 requires employers to automatically enroll eligible employees in a qualifying pension plan. The Pensions Act 2008 does not require that the pension plan be a defined contribution plan but its drafters recognized that most employer pension plans going forward would be defined contribution plans.

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120 Ch. 6 ONS Pension Trends 2013, supra note 113, at 22-23.
121 Pensions Act 2008, supra note 119, §3.
For automatic enrolment purposes, an eligible employee is someone who is 22 years old or old but who has not reached “pensionable age” and who earns more than £833 monthly (about US$1413 monthly) during the 2014-15 tax year.122 “Pensionable age” is defined in the Pensions Act 1995 is defined as being 65 years old for men, 60 years old for women who were born before April 6, 1950, and 65 years old for women who were born after April 5, 1955.123 For women born between April 6, 1950 and April 5, 1955, the Pensions Act 1995, as amended by the Pensions Act 2011, sets forth in detail when between the ages of 60 and 65 that they would reach retirement age.124

The U.K. Secretary of State, who oversees the Department for Work and Pensions, may adjust both the range of “qualifying earnings”, on which automatic minimum contributions to the pension plan must be made, and the earnings trigger for automatic enrollment.125 For the 2014-15 tax year, the “qualified earnings” are either an employee’s pre-tax earnings from £5,772 to £41,865 (about US$9796 to US$71,053) or an employee’s entire pre-tax earnings.126 The employer gets to choose how to determine an employee’s qualifying earnings.127

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Mandatory minimum contributions must be made to the pension plan for employees enrolled in it. Unlike Australia, however, the employer is not responsible for paying for the entire minimum contribution. The automatic enrollment pension plan scheme went into effect on October 1, 2012 and it is being phased in between Oct. 1, 2012 and Oct. 1, 2018.\textsuperscript{128} Beginning on Oct. 1, 2018, employers must annually contribute the equivalent of at least 3 percent of an employee’s qualifying earnings to a pension plan.\textsuperscript{129} The total annual minimum contribution to the pension plan for an employee must equal 8 percent of the employee’s qualifying earnings with the difference between what the employer contributes and this total amount coming from the employee.\textsuperscript{130} After being automatically enrolled, employees may opt-out of participating in the pension plan by providing notice to their employer of their desire to do so.\textsuperscript{131}

As the above discussion demonstrates, all three nations are firmly committed to relying on defined contribution plans as the primary private pension plan vehicle to help provide a comfortable old age pension in the future. Australia has entrenched the shift to defined contributions with its mandatory private pension plan program. The United Kingdom is on the road to following Australia’s lead by enacting its own mandatory private pension plan scheme. Even without a mandatory pension plan program, the United States private sector has jumped on the defined contribution bandwagon and shows no signs of altering course.

The similarities among these nations, particularly in terms of their legal systems, their standards of living, their economies, and the size and performance of their financial services industries mean that the lessons that can be derived from their experiences with different

\textsuperscript{129} Pensions Act 2008, supra note 119, §20.
\textsuperscript{130} Id., §20.
\textsuperscript{131} Id. §8.
structures for their private pension systems, particularly their defined contribution plans, might be useful to each other. While these nations share many demographic and economic similarities, the shift to defined contribution plans in each nation has occurred at different rates. In addition, the role that the legal structured has played in promoting this shift have varied among these nations. As a result, these varied experiences highlight the advantages and disadvantages for both workers and financial markets of the private sector moving towards relying primarily on defined contribution plans for pensions.

III. Overview of the Regulatory Structures for Financial Services and Pensions

To understand why all three nations have shifted to defined contribution schemes, one needs to understand the different regulatory regimes for defined benefit plans and defined contribution plans in each nation and the costs and risks associated with each type of plan as a result. While the regulatory regimes have some similarities, their differences are striking and at least some of the negative effects of the shift from defined benefit plans to defined contribution plans in the United States might be mitigated if the United States were to adopt some of the procedures that have been used by Australia and the United Kingdom. This does not mean that the Australian and U.K. regimes are trouble-free. Both have undergone major reviews within the past ten years that have highlighted their deficiencies. Nevertheless, the United States would be foolish not to learn from their experiences.

The regulatory structures of Australia, the United Kingdom, and the United States represent several different regulatory schemes. Regulation in the United States and, at times, the United Kingdom operates as a mixture of functional and institutional regulation. Functional regulation focuses on regulating based on the function (or classification) of the type of product or
service rather than the institution that provided it. For example, state insurance commissions regulate the sales of insurance, the U.S. Securities and Exchange Commission (SEC) and the state securities regulators regulate the sale of securities, the Commodities Futures Trading Commission (CFTC) regulates options and futures, and the federal and state banking regulators regulate banking services and products. Institutional regulation, by contrast, focuses on regulating based on the classification of the institution providing the product or service and not based on the classification of the product or service being offered. Bank and thrift regulators, instead of the SEC, continue to regulate some of the securities activities of banks and thrifts, such as commercial paper and exempted securities, private placements, asset-backed securities, derivatives, third-party networking arrangements, trust activities, employee and shareholder benefit plans, sweep accounts, affiliate transactions, and safekeeping and custody services. In addition, prudential regulation, which focuses on the maintaining the financial soundness of a particular business, is done on an institutional basis. As a result, the banking regulators set the capital adequacy standards for banks, the insurance regulators set the capital adequacy standards for insurance companies, and the securities regulators set the capital adequacy standards for securities broker-dealers.

Another way of organizing regulatory structures is by objective or by the risks that the regulator is seeking to control. This method is employed by Australia, which has set up one regulatory agency to regulate the prudential risk posed by all financial institutions and another regulatory agency to regulate the market conduct risks posed by all financial institutions. The United Kingdom has also used this approach at times over the past decade. The United States,

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however, generally does not use this approach, although the creation of the Consumer Financial Protection Bureau and the concentration of prudential regulation for systemically important financial conglomerates in the hands of the Federal Reserve have moved the United States slightly in this direction. Usually, however, each U.S. agency has the power to regulate all of the risks posed by the particular type of products or institutions that it supervises. As a result, a financial services firm can be subject to overlapping and conflicting regulations in the United States when it offers hybrid products that are regulated by multiple agencies or when it offers a range of products that are regulated by different agencies. For example, variable annuities are hybrid products that are classified as both insurance and as securities.\textsuperscript{134} As a result, they are subject to regulation by both insurance regulators and securities regulators.

These philosophical differences over how to organize the regulatory bodies also translate into differences in pension and financial services regulation within each nation. The descriptions below provide a very general overview of how pensions are regulated in all three nations.

A. The United States

The United States treats retirement accounts as if they are fundamentally different from other financial assets owned by consumers, despite the fact that these accounts frequently are just

\textsuperscript{134} An annuity offers the buyer the right to receive a stream of payments in the future until the death of the annuitant. An annuity can guarantee a fixed rate of return on the underlying investment or a variable rate of return. Annuities with fixed rates of return are called fixed annuities and those with variable rates of return are called variable annuities. For variable annuities, the variable rates of return depends on the performance of the assets in which it invests. Variable annuities invest in stocks, bonds, and other investments. As a result, variable annuities are classified as securities because they are investments of money in a common enterprise with the expectation of profits from the efforts of others.

The primary purpose of the annuity can be to accumulate wealth or to provide a guaranteed pay out for a certain period of time. The pay-out commitment can be either for a fixed period, a fixed amount, or the lifetime of the owner. Annuity can serve as a tax deferral vehicle, similar to a 401(k) plan or an individual retirement account (IRA), but without the limits on contributions that those investment vehicles entail. Annuities are marketed as investment vehicles, particularly for those concerned about retirement. Annuities are pushed by the insurance industry as an alternative to or a supplement to more traditional investment vehicles, such as mutual funds, IRAs and 401(k) plans.
diversified portfolios of other financial assets. The Federal Reserve in its Survey of Consumer Finances (“SCF”) defines total financial assets of consumers as the sum of transaction accounts, certificates of deposits, savings bonds, bonds, stocks, pooled investment funds (excluding money market funds), retirement accounts, cash value life insurance, other managed assets, and other financial assets. \(^{135}\) Retirement accounts include individual retirement accounts (IRAs) and defined contribution plans, like 401(k) accounts. \(^{136}\) IRAs and 401(k) accounts generally are comprised of some mix of stocks, bonds, certificates of deposit, money market funds, which the SCF classifies as transaction accounts when such funds not part of a retirement account, and mutual funds, which the SCF classifies as pooled investment funds when such funds are not part of a retirement account. \(^{137}\) So even though the underlying financial products might be regulated as securities or banking products, these financial products are subject to another layer of regulation when they are held in retirement accounts in defined benefit or defined contribution plans.

The primary law governing pension funds in the United States is the Employee Retirement Income Security Act of 1974 (ERISA). \(^{138}\) Three agencies are tasked with enforcing this law: the Employee Benefits Security Administration (EBSA) within the U.S. Department of Labor, \(^{139}\) the Internal Revenue Service (IRS) within the U.S. Department of the Treasury, and the Pension Benefits Guaranty Corporation (PBGC). \(^{140}\) The Board of Directors for PBGC is


\(^{136}\) Id. at 35.

\(^{137}\) Id. at 26, 35 n.23.

\(^{138}\) 29 U.S.C. §§1001 et. al.

\(^{139}\) From January 1986 to February 2003, EBSA was known as the Pension and Welfare Benefits Administration (PWBA). Secretary of Labor's Order No. 1-2003 (68 FR 5374). Before January 1986, it was known as the Pension and Welfare Benefits Program.

\(^{140}\) 29 U.S.C. §§1201-1202, 1302.
comprised of the Secretary of Labor, the Secretary of the Treasury, and the Secretary of Commerce.  

ERISA requires that a business offering a defined benefit plan to its employees must establish a trust to manage the plan. The trustees are to manage the plan in the best interests of the beneficiaries, not the business sponsoring the plan. While the business and the defined benefit plan trust are separate legal entities and the sponsoring firm is not supposed to influence the trust's investment decisions, evidence exists that the sponsoring businesses do influence trustees' investment decisions. EBSA enforces these fiduciary standards and the disclosure requirements set forth under ERISA. EBSA may investigate plans and seek both criminal and civil penalties for violations of the law. It may resort to litigation, if necessary, to enforce ERISA. 

PBGC insures that the workers covered by defined benefit plans receive at least a portion of the benefits that they were promised under those plans. PBGC does not cover other types of retirement benefits, such as healthcare plans or defined contribution plans.

PBGC maintains four funds on the books of the Treasury from which it pays out benefits - one for the basic benefits guaranteed to single-employer plans, one for the basic benefits guaranteed to the multiple-employer plans, one for the nonbasic benefits guaranteed to single-

143 29 U.S.C. §1103(c).
employer plans, and one for the nonbasic benefits guaranteed to the multiple-employer plans. In order to support these funds, PBGC charges premiums for the insurance that it provides to the plans covered by it. The Deficit Reduction Act of 2005 raised the levels of the premiums that PBGC charges in order to reduce its deficit, which is the difference between PBGC's total assets and the present value of future benefits it must pay out. For 2014, a single-employer plan must pay a flat rate premium of US$49 per participant covered by it and a multiple-employer plan must pay a flat rate premium of US$12 per participant cover by it. The PBGC can also collect additional premiums from underfunded single-employer pension plans.

The higher premiums initially helped reduce PBGC's deficit. PBGC's deficit has grown in the wake of the financial crisis and the wave of new single-employer and multiple-employer plans trusted to PBGC, reaching a deficit of over US$35.6 billion in 2013. Over 60 percent of the deficit in 2013 was due to single-employer programs. Between Aug. 1, 2007 and June 18, 2014, PBGC took control of over 744 single-employer pensions covering over 435,666 participants.

150 Pub. L. 109-171 (Feb. 8, 2006),
154 PBGC, 2013 ANNUAL REPORT, supra note 151, at 29-30.
155 Id.
Figure 19: Summary of PBGC's Financial Position For Single-Employer Programs for FY2004-2013\(^\text{157}\)
(in millions of US dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Assets</th>
<th>Present Value of Future Benefits</th>
<th>Net Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>38,993</td>
<td>60,836</td>
<td>(23,305)</td>
</tr>
<tr>
<td>2005</td>
<td>56,470</td>
<td>69,737</td>
<td>(22,776)</td>
</tr>
<tr>
<td>2006</td>
<td>59,972</td>
<td>69,143</td>
<td>(18,142)</td>
</tr>
<tr>
<td>2007</td>
<td>67,241</td>
<td>69,235</td>
<td>(13,111)</td>
</tr>
<tr>
<td>2008</td>
<td>64,612</td>
<td>59,996</td>
<td>(10,678)</td>
</tr>
<tr>
<td>2009</td>
<td>68,736</td>
<td>83,035</td>
<td>(21,077)</td>
</tr>
<tr>
<td>2010</td>
<td>77,463</td>
<td>90,022</td>
<td>(21,594)</td>
</tr>
<tr>
<td>2011</td>
<td>78,960</td>
<td>92,953</td>
<td>(23,226)</td>
</tr>
<tr>
<td>2012</td>
<td>82,973</td>
<td>105,635</td>
<td>(29,142)</td>
</tr>
<tr>
<td>2013</td>
<td>83,227</td>
<td>105,018</td>
<td>(27,381)</td>
</tr>
</tbody>
</table>

The Pension Protection Act of 2006 ("PPA")\(^\text{158}\) was billed by its proponents as the most sweeping pension reform in the United States since ERISA was enacted in 1974.\(^\text{159}\) It changed the definition of when a pension fund would be considered fully funded for single-employer defined benefit plans, single employer money purchase plans, and multiple employer defined benefit plans.\(^\text{160}\) For example, a single-employer defined benefit plans would no longer be considered fully funded if it possessed 90 percent of the funds needed to cover the present value of future benefits but now needs to possess 100 percent of the funds needed to cover the present value of future benefits owed by the fund.\(^\text{161}\)

The PPA amended §401(a) of the Internal Revenue Code (IRC) to allow an employee to sell any investments in his employer's securities held in his defined contribution plan and to reinvest the funds in one of the other investment options provided by the plan under certain circumstances.\(^\text{162}\) It also required employers to offer at least three investment options other than

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\(^{157}\) PBGC 2013 ANNUAL REPORT, supra note 151, at 29-30.


\(^{160}\) PPA, supra note 158, §101 (codified as an amendment to 29 U.S.C. §1082)

\(^{161}\) PPA, supra note 158, §101; Klaff, supra note 159, at 561.

\(^{162}\) PPA §901 (codified as 26 U.S.C. §401).
the employer's securities. Section 904 of the PPA allows the employer matching contributions into an employee's defined contribution plan to vest within five years or for some portion of them to vest during a three to seven year period. This provision permits faster vesting of employer contributions than the previously allowed.

The PPA also amended ERISA to make it easier for employees with defined contribution plans to obtain investment advice. Section 601 of the PPA allows fiduciaries of the defined contribution plan, including the entity sponsoring the plan, to provide investment advice to plan participants under certain conditions. Previously such advice was prohibited because of the potential for the investment advice to be tainted by conflicts of interest. Prior to this change, employers and the firms managing the funds offered within the defined contribution plan were reluctant to do more than provide employees with the basic details about the offered funds because they did not want to incur the fiduciary obligations that §404(c) of ERISA imposed on investment advisors. They would not, for example, suggest how an employee might diversify his holding among the plan's funds in order to achieve his investment goals. Following the Pension Protection Act changes, employers and firms managing the funds can provide advice under a broad range of circumstances. For employees who cannot afford to hire independent

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163 Id.  
165 PPA §601 (codified as an amendment to 29 U.S.C. §1108(b))  
166 Susan Stabile, Is It Time To Admit the Failure of an Employer-Based Pension System? 11 LEWIS & CLARK L. REV. 305, 311 (Summer 2007) [hereinafter Stabile 2007].  
168 Kastrinsky, supra note 167, at 906-907 (noting that providing advice on diversification would make an employer an investment advisor under ERISA).
investment advisors, this change enables them to become better informed prior to making decisions about how to invest the funds in their account.

In addition to the EBSA and the PBGC, pension funds may also have to comply with regulations from other federal and state financial services regulators depending upon the types of products that they offer or in which they invest. For example, defined contribution plans offer mutual funds which are regulated by the Securities and Exchange Commission (SEC). If they offer commodities funds, futures or options, then the Commodities Futures Trading Commission (CFTC) will police those aspects of their operations. If they offer annuities, then they will have to comply with the regulations of the state insurance commissioners in the states in which they sell those products. As there are over 115 federal and state agencies that regulate some aspect of financial services, pension funds may have to comply with a wide range of laws and regulations if they have plan participants in all fifty states.169

B. Australia

The Australian twin peaks approach organizes its regulatory agencies based on their risks that are designed to control.170 Australia created the Australian Securities and Investment


170 Australia's current regulatory structure resulted from the Financial System Inquiry, also known as the Wallis Inquiry, which was conducted by the Australian Government in 1996. Cooper, supra note 41, at 2. This inquiry was also known as the Wallis Inquiry because it was chaired by Stan Wallis, a noted Australian businessman. *Id.* Unlike the Dodd-Frank Act, which was enacted in response to the 2008 financial crisis, the Wallis Review took place during a period of relative calm in Australia's financial markets and was not a reaction to any particular crisis. *Id.* The Wallis Inquiry proposed three possible regulatory structures: a single mega regulator model, a lead regulator
Commission ("ASIC") to regulate market conduct risks, such as market integrity and consumer protection issues, and the Australian Prudential Regulation Authority ("APRA") to regulate prudential risks.\textsuperscript{171} These two agencies are responsible for regulating these risks for the entire financial services sector in Australia, including most pension schemes.\textsuperscript{172} Any pension scheme that is classified as a “self-managed superannuation fund” does not fall within the ambit of ASIC and APRA and is instead covered by the Australian Taxation Office ("ATO").\textsuperscript{173} A “self-managed superannuation fund” is one with less than five employees and because they are so small are granted certain exemptions and concessions from the standard pension regulations.\textsuperscript{174}

Like the prudential regulators in the United States, APRA conducts on-site visits and examinations to assess the financial stability of the entities under its supervision.\textsuperscript{175} APRA uses PAIRS, which stands for Probability and Impact Rating System.\textsuperscript{176} It assesses the likelihood that a financial firm will be able to meet its obligations as they come due and the impact that a financial firm will have on the Australian financial system if it fails.\textsuperscript{177}

ASIC operates as Australia's financial services, market, and corporate regulator. It combines not only the consumer protection function of the banking, securities, and insurance regulators in the United States but it also encompasses many of the corporate law elements that

\begin{thebibliography}{99}
\bibitem{171} Id.
\bibitem{173} Id., Part 1, §6(1)(e)-(f).
\bibitem{174} Id., Part 1, §17A.
\bibitem{175} Cooper, supra note 41, at 6.
\bibitem{176} Id. at 5.
\bibitem{177} Id. at 5-6.
\end{thebibliography}
are relegated to the states within the United States. ASIC also regulates all of Australia's financial markets, including the Australia Stock Exchange ("ASX"). ASIC licenses and regulates financial services, including superannuation funds, insurance, securities, derivatives, and managed funds, to protect consumers against fraudulent and deceptive practices. As part of receiving a license from ASIC, a financial services firm agrees to: (1) operate in a manner to ensure that it provides its products and services "efficiently, honestly and fairly," (2) take steps to employ "adequately trained" and "competent" staff, and (3) to have sufficient resources to operate. The third requirement, however, is waived for firms that are subject to prudential regulation by APRA in order to avoid conflicts and duplication between the regulatory requirement imposed by ASIC and APRA. ASIC has a Consumer Advisory Panel to provide feedback on ASIC's regulations and performance and to provide advice on consumer protection issues.

While the Australian system is called a twin peaks model, the ASIC and the APRA are not the only agencies which regulate the financial system. The Reserve Bank of Australia ("RBA") regulates systemic risks to the financial system, primarily by setting monetary policy. The Australian Treasury also plays a key role by advocating policy reforms to enhance financial services regulation. The Australian Competition and Consumer Commission ("ACCC") affects financial services regulation through its management of Australia's anti-competition laws,

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178 Id. at 7. For example, ASIC registers all companies in Australia, ensures that their directors are complying with their fiduciary duties, and regulates corporate disclosures, fundraising, mergers and acquisitions, and windings up. Id.
179 Id.
180 Id.
181 Id. at 10.
182 Id. at 10-11.
183 Id. at 8.
184 Id. at 4.
which are equivalent to the antitrust laws in the United States. In addition, some specialist financial firms are regulated by the governments of the provinces and territories, not ASIC.

In order to coordinate the major regulators of financial services, the Australian Government established the Council of Financial Regulators, which consists of APRA, ASIC, RBA, and the Treasury. The Council was not created through legislation and has no regulatory powers independent from those possessed by its members.

Australia's Superannuation Industry (Supervision) Act of 1993 ("SISA") and its Superannuation Guarantee Charge Act ("SGCA") are the two main laws that regulate Australia's pension system, although there are many others. As previously noted in Part II, the SGCA requires employers to contribute a minimum percentage of an employee’s salary into a superannuation fund, which can either be a defined benefit plan or a defined contribution plan. This minimum contribution is being raised from 9 percent in 2012 to 12 percent beginning on July 1, 2019. While a few defined benefit plans exist, almost all Australian employers have opted for payments into defined contribution plans. These defined contribution plans are set up as trusts, with half of the trustees appointed to represent the employer and half of the trustees appointed to represent the employees.

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186 Id.
189 SISA, supra note 172.
192 Id. §19(2).
193 OECD Pensions 2013, supra note 30, at 211.
194 Dan Scheiwe, Why Australia's Pension System is Not a Good International Model 9 (Pension Institute, Discussion Draft PI-9912, 1999).
The employer must make these payments for all of its employees, except for those that fall within certain parameters. Employers do not have to pay for employees who earn less than AU$450 per month (about US$420 per month), who are over age 70, who are under 18, or work less than 30 hours a week. An employer may deduct its contributions to the superannuation plans when calculating its taxes. If the employer, however, chooses not to make such contributions, the Australian government will levy a superannuation guarantee charge ("SGC") on the employer. The amounts paid to cover the SGC are not tax deductible. Employers subject to an SGC must also pay administration fees and interest on any arrears payment.

The SGC is administered by the Australian Tax Office ("ATO"). The ATO will immediately transfer large SGC payments into the employees' superannuation funds but may retain small SGC payments in the ATO's Superannuation Holding Accounts Reserve ("SHAR").

Employees who have low incomes, which were defined as AU$37,000 annual income (about US$34,700) or less for the 2012-13 tax year, can receive a low income superannuation contribution from the Australian government for up to AU$500 (about US$470). Conversely, self-employed Australians can voluntarily choose to contribute to a superannuation

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196 Scheiwe, supra note 194, at 3.
197 SGCA, §5.
198 Scheiwe, supra note 194, at 3.
199 Id.
200 Id.
201 Id.
fund and may deduct up to a certain set amount from their taxes if they do so.\textsuperscript{203} Beginning on July 1, 2014, the amount that a self-employed individual could deduct is up to AUS$30,000 (about US$28,200).\textsuperscript{204}

The Superannuation (Resolution of Complaints) Act 1993 created the Superannuation Complaints Tribunal ("SCT"), which investigates most complaints involving regulated superannuation funds, annuities, and retirement savings accounts ("RSAs").\textsuperscript{205} The SCT has twenty members.\textsuperscript{206} When a complaint is brought, three members will be selected to deal with it -- first through conciliation and if that fails, then through a formal review process.\textsuperscript{207} If the person bringing the complaint is unsatisfied with how the SCT has handled it, they may file a complaint with Commonwealth Ombudsman.\textsuperscript{208} The Commonwealth Ombudsman investigates complaints about any of Australia's administrative agencies as well as performing audits and inspections of these agencies.\textsuperscript{209}

Figure 20 illustrates the Australian regulatory structure for pensions and financial services.

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{204} \textit{Id.} The Australian Dollar to U.S. Dollar exchange rate on July 25, 2014 was AUS$1 = US$0.9404, which means that AUS$450 equals about US$423. Fed. Res. Australian Rates 2000-Present, \textit{supra} note 89.
\item \textsuperscript{206} Superannuation Complaints Tribunal, Overview, \textit{supra} note 205.
\item \textsuperscript{207} \textit{Id.}
\item \textsuperscript{209} Commonwealth Ombudsman, \textit{supra} note 208.
\end{itemize}
\end{footnotesize}
C. United Kingdom

Although the United Kingdom was frequently referred to as a single regulator model between 2000 and 2013, it, in fact, had three government entities with primary regulatory authority over the financial services system -- the Financial Services Authority, the Bank of England, and the Treasury -- as well as several special agencies to regulate pensions -- the Pensions Regulator, the Pensions Protection Fund, and the Fraud Protection Fund. Regulatory authority for most financial services, including pensions, was concentrated in the Financial Services Authority ("U.K. FSA") until April 1, 2013 when the Financial Services Act 2012 took effect. The U.K. FSA provided both prudential and market conduct supervision for financial services.\(^{210}\) Between 1998 and 2013, the Bank of England was only responsible for monetary


Between 1998 and 2013, the Treasury Department was responsible for "the overall institutional structure of financial regulation and the legislation which governs it, including the negotiation of EC directives" and for accounting to Parliament and the government for serious disruptions to the financial system, and for the financial sector's resilience to such disruptions.\textsuperscript{213}

In order to coordinate the activities of the U.K. FSA, the Bank of England, and the Treasury between 1998 and 2013, the United Kingdom formed the Tripartite Standing Committee on Financial Stability comprised of representatives of all three agencies.\textsuperscript{214} This pre-2013 financial services regulatory structure is illustrated in Figure 21.

\textbf{Figure 21: U.K. Financial Regulatory Structure prior to April 1, 2013}\textsuperscript{215}

In 2010, the newly elected U.K. government announced that it was restructuring the way that financial services are regulated and would move some of the powers of the Financial Services Authority to the Bank of England.\textsuperscript{216} Under the Financial Services Act 2012, the U.K.

\begin{itemize}
\item \textsuperscript{212} Bank of England Act, 1998, ch. 11, §§10-12; Financial Services Act, \textit{supra} note 210, ch. 21, §§2, 6 (added the protection of financial stability to the Bank of England’s duties and created the Prudential Regulatory Authority within the Bank of England).
\item \textsuperscript{213} United Kingdom Memorandum of Understanding between HM Treasury, the Bank of England and the Financial Services Authority at 3, available at: \url{http://www.bankofengland.co.uk/financialstability/mou.pdf} [hereinafter, U.K. Financial Stability MOU].
\item \textsuperscript{214} U.K. Financial Stability MOU at 4.
\item \textsuperscript{216} U.K. Government 2010 Reform Proposal, \textit{supra} note 52, at 9.
\end{itemize}
FSA was renamed the Financial Conduct Authority ("U.K. FCA"). The U.K. FCA is responsible for market conduct regulations for all financial services and for prudential regulation of firms not regulated by the new Prudential Regulatory Authority, which is a subsidiary of the Bank of England. On April 1, 2013, the Prudential Regulatory Authority ("U.K. PRA") within the Bank of England took over the U.K. FSA's prudential supervision functions. The U.K. PRA supervises insurance firms, depository institutions, and related activities. Because the U.K. FCA does not solely engage in market conduct regulation but retains some prudential regulatory powers, the United Kingdom’s new regulatory structure is not a pure twin peaks structure as exists in Australia. The United Kingdom’s modified twin peaks structure is illustrated in Figure 22.

217 Financial Services Act, supra note 210, ch. 21, §6.
218 Id.
219 Financial Services Act, supra note 210, ch. 21, §6; H.M. Treasury Press Release, supra note 50.
As in the United States, the U.K. financial regulators supervise the financial products, in which U.K. pensions invest, and the institutions that offer such products while another set of agencies regulate the pension plans themselves. Thus, U.K. pension plans must comply with an additional layer of regulation that is similar in some respects to the additional layer of regulation on pension plans in the United States.

The Pensions Regulator was created by the Pensions Act 2004.\textsuperscript{222} The objectives of the Pensions Regulator are:

(a) to protect the benefits under occupational pension schemes of, or in respect of, members of such schemes,

(b) to protect the benefits under personal pension schemes of, or in respect of, members of such schemes within subsection (2),

(c) to reduce the risk of situations arising which may lead to compensation being payable from the Pension Protection Fund (see Part 2), and

(d) to promote, and to improve understanding of, the good administration of work-based pension schemes.\textsuperscript{223}

The Pension Regulator supervises workplace pensions while the U.K. FCA regulates personal pensions and annuities.\textsuperscript{224}

In order to protect defined benefit plan participants in the event that a plan became insolvent, the Pensions Act 2004 created the Pensions Protection Fund ("PPF"), which operates in ways that are similar to the U.S. PBGC.\textsuperscript{225} Prior to the Pensions Act 2004, the United Kingdom did not have any government agency that provided insurance against the insolvency of a defined benefit plan.\textsuperscript{226} The PPF is funded by four mains sources: (1) a levy imposed on eligible defined benefit plans covered by the PPF, of which 80 percent would be comprised of a


\textsuperscript{223} Id., §5.

\textsuperscript{224} Memorandum of Understanding between the Financial Conduct Authority and The Pensions Regulator §§5-6 (April 2013). Personal pensions in the United Kingdom are similar to individual retirement accounts in the United States.


\textsuperscript{226} Thurley 2012, supra note 225, at 4.
risk-based pension protection levy and 20 percent would be comprised of a scheme-based pension protection levy, (2) the recovery of assets from the insolvent employers of pension plans that it takes over, (3) the assets transfer to it when it takes over a pension plan, and (4) the returns on its investments. Unlike in the United States where the amount charged to plans is set forth in the statute, the Board of the PPF is required every year to set the levies that will be charged to the covered plans. The PPF does not have free reign to set any amount it wants. The Secretary of State sets the ceilings for the risk-based pension protection levy and the scheme-based pension protection levy for each defined benefit plan covered by the PPF, which places caps on the amounts that the PPF can charge.

When the PPF takes over a pension plan, the amounts that participants will receive depends upon whether they were already receiving benefits at the time of the insolvency. If they were, then the PPF will continue to pay the 100 percent of the amounts owed to them under the plan. If they were not, then the PPF will only pay 90 percent of the amounts owed to them under the plan from the date when they are eligible to begin collecting their benefits under the plan’s terms.

The Pensions Act 2004 also created the Fraud Compensation Fund ("FCF") to protect pension plans that have lost money due to fraud. The FCF is separate fund administered by

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227 Pensions Act 2004, supra note 222, ch. 35, Part 2, §§175-181; Thurley 2012, supra note 225, at 17. The risk-based levy is calculated based on three factors: (1) the difference between the value of a pension plan’s assets and the amount of its protected liabilities, (2) except for certain regulated pension plans, the likelihood of the employer associated with the pension plan becoming insolvent, and (3) certain other risk factors that the Board of the PPF deems appropriate. Pensions Act 2004, supra note 222, ch. 35, Part 2, §175. The scheme-based levy is calculated based on two factors: (1) the amount of a pension plan’s liabilities to or in relationship to its members and (2) certain other risk factors that the Board of the PPF deems appropriate. Id., ch. 35, Part 2, §175.

228 Pensions Act 2004, supra note 222, ch. 35, Part 2, §§175, 178

229 Id., ch. 35, Part 2, §178.


the Pensions Protection Fund and it took over the functions of the Pensions Compensation Board. The Pensions Act 1995 created the Pensions Compensation Board to provide compensation in cases involving pension plans that were held in trust schemes, the employer had become insolvent, the assets of the plan represented less than 90 percent of the plan’s liabilities, and the value of the plan’s assets had been reduced due to fraud or some other prohibited activity. Unlike the Pensions Protection Fund, the FCF covers both defined contribution plans and defined benefit plans. The FCF primarily is funded from a levy charged on all defined contribution and defined benefit plans. The FCF will pay compensation if the following four conditions are met: (1) the pension plan is an eligible pension plan, (2) it is doubtful that the employer sponsoring the plan will be able to continue as a "going concern," (3) it is no possibility of the pension plan being rescued, and (4) the value of the plan's assets was reduced by a fraudulent act.

The U.K. Department for Work and Pensions is responsible for administering, among other things, the Basic State Pension, which is the U.K. equivalent of Social Security in the United States, and the Pension Credit, which provides welfare payments to persons of pensionable age. The U.K. Department for Work and Pensions, the Pensions Regulator, and the Pensions Protection Fund entered into a Memorandum of Understanding in 2008 that governs

233 Id., ch. 35, Part 2, §§188, 302.
237 Pensions Act 2004, supra note 222, ch. 35, Part 2, §185 (providing that compensation may be paid on such terms as the Board of the Pension Protection Fund may deem appropriate); FAQ Answer, When may compensation from the FCF be paid?, http://www.pensionprotectionfund.org.uk/FAQs/Pages/details.aspx?itemid=189&search=t&subjectid=9.
their interactions with one another and delineates their areas of responsibilities. This Memorandum of Understanding also created a forum to promote cooperation, coordination, and the exchange of information among the U.K. Department for Work and Pensions, the Pensions Regulator, and the Pensions Protection Fund. This forum is called the Tripartite Forum. Figure 23 illustrates the organizational structure for the U.K. pension regulatory agencies under this arrangement.

**Figure 23: U.K. Pensions Regulatory Structure**

![Diagram of U.K. Pensions Regulatory Structure]

IV. Impact of the Shift from Defined Benefit Plans to Defined Contribution Plans

The growth of defined contribution plans in all three countries has significant implications not only for workers but for the financial markets as well. Due to participation in defined contribution plans and individual retirement savings accounts, a larger percentage of the populations of Australia, the United Kingdom, and the United States are investing in financial

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239 *Id.*, §§14-31.

240 *Id.*, §15.

products, either directly or indirectly, then they previously did. In order to assess what changes, if any, need to be made in light of this shift, the benefits and risks posed to workers and the financial markets need to be analyzed.

The benefits for workers of defined contribution plans include increased portability, quicker vesting of benefits, and a greater degree of personal autonomy over one's retirement future. One of the main risks for workers of defined contribution plans is that they will reach retirement with insufficient assets to live comfortably for the remainder of their lives and as a result, will spend some portion of their later years in poverty.

The primary benefit for the financial services industry of defined contribution plans is the chance to make significantly larger profits from managing the funds that flow through these plans and from taking advantage of the plans' participants who are relatively ignorant concerning financial markets. The risks posed to financial markets from these plans are increased likelihood of bubbles in the assets in which plan participants are allowed to invest and increased pressure on the remaining defined benefit plans to seek higher returns through alternative investments in order to keep the contributions from the establishments sponsoring the plans to a

242 Broadbent, Palumbo, and Woodman, supra note 2, at 21.
244 Broadbent, Palumbo, and Woodman, supra note 2, at 7-10; Ghilarducci, supra note 243, at 136-138; Pozen and Hamacher, supra note 243, at 284.
245 Ghilarducci, supra note 243, at 120, 128; Alicia H. Munnell, Mauricio Soto, Jerilyn Libby, and John Prinzivalli, Investment Returns: Defined Benefit vs. 401(k) Plans 4-5 (Ctr. For Retirement Research at Boston College, Issue in Brief No. 52, Sept. 2006); Daniel Solin, 5 Ways to Maximize Your Rigged 401(k) Plan, U.S. NEWS & WORLD RPT. June 2014, available at: http://money.usnews.com/money/blogs/the-smarter-mutual-fund-investor/2014/06/17/5-ways-to-maximize-your-rigged-401-k-plan. Ghilarducci noted that 2007 congressional hearings found that “workers are charged between 3% and 5%, while 1.5% is more appropriate. An excess charge of 1% can seriously erode retirement money.” Ghilarducci at 128.
minimum. These risks potentially fed some of the trends that led to the recent financial crisis and could help fuel future financial crises if not addressed.

A. Impacts on Workers - Benefits

As previously noted, the benefits for workers of defined contribution plans include increased portability, quicker vesting of benefits, and a greater degree of personal autonomy over one's retirement future. The importance of these benefits should not be undersold.

1. Defined contribution plans are portable while defined benefit plans usually are not.

The advantages of most defined benefit plans only accrued to workers who were willing or able to stay employed with the same employer for long periods of time. It could take up to 10 years for an employee to be deemed vested in his employer's defined benefit plan and thus, eligible to receive at least some benefits either when he left the enterprise to work elsewhere or retired. Because of worker mobility and the vesting rules, only a subset of workers in Australia, the United Kingdom, and the United States would vest in the defined benefit plans offered in these countries. In 2012, the average length of time that a worker in the United States remained in the same job was 4.6 years. A study by the U.S. Bureau of Labor Statistics found that baby boomers born between 1957 and 1964 had held an average of 11.3 jobs between

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247 Broadbent, Palumbo, and Woodman, supra note 2, at 6 n.15.

248 Broadbent, Palumbo, and Woodman, supra note 2, at 6, 14, 18, 20; Pozen and Hamacher, supra note 243, at 287.

the ages of 18 and 46. In 2011, the average job tenure for a worker in Australia was about seven years. According to a 2013 survey, the average worker in the United Kingdom held six jobs during their working lives.

2. Workers immediately vest in the funds that they contribute to a defined contribution plan.

Under the defined contribution schemes in all three nations, the participant is immediately vested in the funds that he contributes to the plan. In addition, an employee in all three countries usually is able to either leave his defined contribution plan assets in the plan administered by his former employer, roll his defined contribution plan assets over into another defined contribution plan when he changes jobs, or roll his assets into some type of individual retirement account. As previously noted, employees generally did not vest in a defined benefit plan until they had been working for their employer for several years, sometimes as long as ten years. Employees who left an employer before they vested in a defined benefit plan could end up with no retirement benefits arising from their period with that employer.

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253 Broadbent, Palumbo, and Woodman, supra note 2, at 8.
254 Id.
3. Employees with defined contribution plans have greater control and autonomy regarding how their retirement funds are invested than they would under a defined benefit plan.

Employees in all three nations have some level of choice in how their contributions to their defined contribution plans are invested.255 The range of those choices varies considerably among the three nations and even among employers within the three nations.256 Employees receiving a pension from a defined benefit plan usually have little or no say in how the plan’s funds are invested.257 They must rely on the defined benefit plan trustees or managers to investment the money in ways that will allow the defined benefit plan to meet its obligations.

In addition, defined contribution plans avoid the risk that the employer sponsoring the plan will underfund the plan causing it to become insolvent and unable to pay the promised benefits.258 Bankruptcies and the threat of more bankruptcies of defined benefit plans led to the creation of the PBGC and the PPF.259 The insurance provided by the PBGC and the PPF is better than no insurance at all but neither will pay most workers 100 percent of what they were promised by their employers if the employers' pension plan becomes insolvent and is taken over by the PBGC or the PPF.260

256 Broadbent, Palumbo, and Woodman, supra note 2, at 5; Pozen and Hamacher, supra note 243, at 287; Chant, et. al., supra note 255, at 4.
257 Broadbent, Palumbo, and Woodman, supra note 2, at 5.
B. Impacts on Workers - Risks

1. Individuals fail to participate.

This risk applies more to the United States and the United Kingdom than it does to Australia where over 90 percent of workers participate in a superannuation plan.\(^{261}\) In the United States, significant numbers of employees who are eligible to participate do not do so. Studies have shown that more than 25 percent of those who are eligible to participate in the United States do not do so.\(^{262}\) In 2011 in the United Kingdom, 53 percent of male employees and 58 percent of female employees who were working full time participated in their employer’s occupational pension plans.\(^{263}\)

In the United States and in the United Kingdom before 2012, inertia or procrastination played a role because most of the defined contribution plans offered were structured as "opt in" plans, under which the employee has to take some action in order to be covered, such as filing a form indicating which funds he would like this contributions invested.\(^{264}\) Many U.S. defined contribution plans have adopted "opt out" defined contribution schemes, under which the employee is automatically enrolled in a default fund until he either takes the necessary steps to completely opt out of the plan or takes the steps necessary to select which funds he would like his contributions invested in.\(^{265}\) Under these plans, the percentage of employees participating in

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\(^{261}\) Broadbent, Palumbo, and Woodman, supra note 2, at 14 n.30.

\(^{262}\) Stabile 2007, supra note 166, at 311.


\(^{265}\) Choi, et.al., supra note 106, at 81-82; Farris, et.al., supra note 106, at 9-10.
the defined contribution plans offered substantially increased. In 2008, the United Kingdom enacted a statute that requires all U.K. employers will be required to make a minimum contribution equal to 3 percent of an employee’s qualifying earnings to a retirement plan beginning in 2018. The employer mandate is being phased in between 2012 and 2018.

For some U.S. and U.K. employees, however, the decision to not participate is completely rationale. They are simply too poor to afford to contribute to a defined contribution plan and to cover their daily needs at the same time. Not surprisingly, younger employees, women, and minorities are found in higher numbers among low-income employees and as result, they are also less likely to participate in their employers' defined contribution plans.

Even in Australia, not everyone participates in the superannuation schemes. As previously noted, to be covered by a superannuation plan, an Australian must earn at least AU$450 per month or AU$5400 per year. Thus, very poor Australians and the unemployed are not covered by the superannuation fund scheme. In addition, many women who stop working to care for children or elderly relatives receive no superannuation contributions during the years that they are engaged in these care giving activities. Finally, self-employed Australians can choose to not participate in the superannuation fund system.

266 Choi, et.al., supra note 106, at 81-82; Farris, et.al., supra note 106, at 9-10.
268 Sass, supra note 128, at 2.
269 Stabile 2007, supra note 166, at 311.
272 Australian Government, ATO, Individuals, Super, Other Contributions, Concessional (Before Tax) Contributions, supra note 203.
2. Individuals who do participate fail to contribute enough.

One of the major problems with the defined contribution schemes in all three nations is that the contributions into the system simply are too small to provide sufficient assets upon which workers can retire in the future. In the United States many individuals simply do not earn enough to meet current needs for food, housing, and other necessities and make contributions into a defined contribution plan.\textsuperscript{273} Even when individuals do make enough, many of them fail to do so for long periods of time either due to their own procrastination or because their employer will not allow them to do so because they fit within one of the categories of employees that the employer has decided to exclude from being able to participate in its defined contribution scheme.\textsuperscript{274}

Workers who have been making contributions into a defined contribution plan can undermine their retirement savings by making early withdrawals, or borrowing from their defined contribution plans.\textsuperscript{275} As a result, they deplete the funds in their defined contribution plans so that the funds are insufficient when they normally would be scheduled to retire.\textsuperscript{276}

Another way that U.S. employees undermine their savings in their defined benefit accounts is by not rolling them over when they change jobs.\textsuperscript{277} When U.S. employees change jobs, they frequently take any contributions that they have made into their former employer's defined contribution scheme as a lump sum payment, even though they will have to pay a tax

\textsuperscript{273} Id.
\textsuperscript{275} Broadbent, Palumbo, and Woodman, supra note 2, at 36-38; Ghilarducci, supra note 243, at 121-122.
\textsuperscript{276} Broadbent, Palumbo, and Woodman, supra note 2, at 36-38; Ghilarducci, supra note 243, at 121-122.
\textsuperscript{277} Broadbent, Palumbo, and Woodman, supra note 2, at 36-38; Ghilarducci, supra note 243, at 121-122.
penalty on these funds, rather than rolling the money over into their new employer's defined contribution plan, assuming it has one, or rolling it over into an IRA.\footnote{\text{Broadbent, Palumbo, and Woodman, supra note 2, at 36-38; Ghilarducci, supra note 243, at 121-122.}}

Finally, it is worth noting that the fees charged to manage the funds offered within the define contribution plan are frequent much higher than the administrative fees paid by defined benefits plans.\footnote{\text{U.K. DEPT. FOR WORK AND PENSIONS, BETTER WORKPLACE PENSIONS: A CONSULTATION ON CHARGING 9-14 (2013) [hereinafter CONSULTATION ON CHARGING]; Broadbent, Palumbo, and Woodman, supra note 2, at 43-44; Ghilarducci, supra note 243, at 127; Munnell et. al., supra note 245, at 4-5.}} These higher fees cut into the participant's funds for retirement and impair the efficiency of defined contribution plans as a retirement vehicle.\footnote{\text{CONSULTATION ON CHARGING, supra note 279, at 9-14; Broadbent, Palumbo, and Woodman, supra note 2, at 43-44; Ghilarducci, supra note 243, at 127; Munnell et. al., supra note 245, at 4-5.}}

Some of the same problems arise for Australian workers. First, even though Australia is raising the level of mandatory contributions to 12 percent, some commentators believe that it should be higher.\footnote{\text{THE ALLEN CONSULTING GROUP, AUSTRALIA’S NATIONAL SAVING REVISITED: WHERE DO WE STAND NOW? 55-60 (Aug. 2007) (summarizes the views of several different studies on the adequacy of Australians’ retirement savings).}} For example, in 2011, the Rice Warner Actuaries estimated that Australian men needed to have total contribution rates of between 12.8 percent for men age 25-29 up to 49.8 percent for men age 60-64 in order to eliminate the retirement savings gap.\footnote{\text{RICE WARNER ACTUARIES, RETIREMENT SAVINGS GAP AT JUNE 2011 7-9 (March 2012), available at http://www.fsc.org.au/downloads/file/ResearchReportsFile/FINAL_FSCSuperannuationSavingsGapReport2011.pdf.}} The Rice Warner Actuaries estimated that Australian women needed to have total contribution rates of between 13.5 percent for women age 25-29 up to 36.7 percent for women age 60-64 in order to eliminate the retirement savings gap.\footnote{\text{Id. at 7-9.}}

The retirement savings gap is “a measure of the current shortfall in national savings between two amounts:

- the amount required to be saved by the nation as a whole to ensure ‘adequacy’ in retirement
- the amount saved in the superannuation system, and estimated to be saved in future years up to retirement, by the current workforce.” Id. at 13.

“‘Adequacy’ in retirement” means “the savings required at retirement to provide 62.5% of pre-retirement earnings (in real terms) for each year until life expectancy.” Id.
In order to help low- and moderate-income workers save for retirement, the Australian Government instituted co-contribution scheme for Australians whose income fell below a certain threshold amount and who made contributions to their superannuation plans. In 2013-14, the maximum co-contribution amount is AUS$500 and the income threshold is AUS$48,516. This co-contribution amount is in addition to the low income superannuation contribution from the Australian government for Australians classified as low income, which meant an annual income of AUS$37,000 (about US$34,700) or less for the 2012-13 tax year.

Second, Australians can request that the trustee for the superannuation account or the RSA release the funds in those accounts early if they qualify on compassionate grounds, which generally means that they can show that they are suffering an extraordinary hardship. The regulations allow the release of funds on compassionate grounds under the following circumstances:

1. To pay for medical or dental treatment for the participant or one of his dependents and transportation to such treatment when the treatment is for a life-threatening illness or injury, alleviate acute or chronic physical pain, or improve an acute or chronic mental condition and the treatment is not covered by the public medical system or covered by the participant's private health insurance;

2. To provide mortgage assistance to prevent the foreclosure and sale of the participant's home;

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284 Id. at 25.
3. To pay for modifications to a house or vehicle to accommodate the needs of the participant or one of his dependents with a severe disability;

4. To pay for care for a terminal medical condition; and

5. To pay for the expenses associated with the death of one of the participant's dependents, including his funeral, burial, or cremation.\(^{288}\)

If their trustee or RSA provider refuses to do so, they can petition APRA to order the release of the funds.\(^{289}\) Except under these circumstances, Australians cannot pull the funds out of their superannuation accounts before they reach age 55.\(^{290}\)

3. Risks shifted from employers to individuals who are less qualified to bear the risk.

   a. *Individuals lack the financial skills to invest wisely.*Most people learn their financial skills on their own or from their parents, not from formal classes in secondary school, university, or elsewhere.\(^{291}\) Unfortunately, many parents do not have well developed financial skills to pass along to their children.\(^{292}\)

\(^{288}\) *Id.*
\(^{289}\) *Id.*
\(^{290}\) *Id.*
One of the reasons that most people traditionally learned their financial skills from their parents or from experience was because such skills usually were not taught in elementary school, secondary school, or most university programs. Only 17 states in the United States require a course in personal finance to be taken as part of their high school curriculum in 2014. Prior to 2011, Australia did not require personal finance issues to be covered as part of its national education curriculum. Prior to September 2014, the United Kingdom did not require personal finance issues as part of its national education curriculum.

Unfortunately, the traditional informal approach to learning personal finance leaves many people financially illiterate. Almost three-fourths of American high school students are financially illiterate according to surveys conducted by the Jump$tart Coalition between 1997 and 2008. In 2008, 73.9 percent of the high school students who took this test failed it. Only 4.7 percent got a score that would have equaled a grade of C or better.

In 2008, the Jump$tart Coalition administered the same financial literacy test that it administered to high school students to a sample of college students. Fortunately, college seniors did do significantly better than the high school students but were, on average, barely

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294 Council for Econ. Educ., supra note 293, at 8.
295 OECD PISA 2012, supra note 291, at 19; Knight, supra note 293.
296 U.K. Dept. of Education, supra note 293, at 94, 97, 149; Kadlec, supra note 293.
297 Lewis Mandell, The Financial Literacy of Young Adults 14 (Jump$tart Coalition, 2008), available at http://www.jumpstart.org/assets/files/2008SurveyBook.pdf. The survey covers four areas of financial literacy: (1) income, (2) money management, (3) savings and investment, and (4) spending and credit. Id. at 10.
298 Id.
299 Id.
300 Id. at 8, 10. The Jump$tart Coalition administered the test 1,030 college students. Id.
literate. The average score for the college seniors who took the test was a 64.5, or a D.\textsuperscript{301} Unfortunately, about 60 percent of Americans do not receive a college education.\textsuperscript{302} So a college education is only helping a minority of the American population.

The fact that American college students did not do substantially better than their high school counterparts is perhaps not surprising. After all, most college students do not take courses in personal finance.\textsuperscript{303} Of those that do receive a college education, only about 18 percent major in business, although another 15 percent minor in business.\textsuperscript{304} Business, however, includes a wide range of disciplines. It is unclear what percentage of these business majors also majored or minored in finance or even took a single course in personal finance.

The average Australian is not significantly more financially literate than the average American. When Australia set up its twin peaks system, one of the underlying assumptions was that its citizens "should be treated as rational and informed investors, with disclosure and market conduct controls being the main regulatory instruments with which to oversee the industry."\textsuperscript{305} Unfortunately, the Cooper Review found that a majority of Australians were not financially literate.\textsuperscript{306} It cited the 2006 Adult Literacy and Life Skills Survey of Australians conducted by the Australian Bureau of Statistics that found that on a practical numeracy test 53 percent of the 15-74 years surveyed could only reach the second of five levels and that on a problem-solving test 70 percent could only reach the second of five levels.\textsuperscript{307} The administrators of the survey

\begin{flushright}
\textsuperscript{301}Id. \\
\textsuperscript{303}Branton, \textit{supra} note 291, at 1. \\
\textsuperscript{304}Ray Franke, Sylvia Ruiz, Jessica Sharkness, Linda DeAngelo, and John Pryor, \textit{College Senior Survey: National Aggregates} 52 (Higher Education Research Institute, 2010). \\
\textsuperscript{305}Cooper Review, \textit{supra} note 96, at 8 (quoting the Wallis Report from 1997 that recommended creating a Twin Peaks system). \\
\textsuperscript{306}Id. \\
\textsuperscript{307}Id. \\
\end{flushright}
consider Level 3, or the next higher level above Level 2, as the "minimum required for
individuals to meet the complex demands of everyday life and work in the emerging
knowledge-based economy." 308

The average person in the United Kingdom also has weak financial literacy skills. A
survey on financial literacy in the United Kingdom found:

- low level of financial understanding among consumers;
- financial understanding is correlated with education and income levels;
- respondents often feel they know more about financial matters than is actually the case;
- consumers feel financial information is difficult to find and understand. 309

In 2004, the U.K. FSA considered as one of its main concerns the fact that "consumers are
making financial decisions based on [an] inadequate understanding" of the financial products and
services involved. 310

Both Australia and the United Kingdom have attempted to address the lack of financial
literacy in their populations by mandating that the financial literacy skills be incorporated into
the national curriculums in their school systems. 311 In 2011, Australia began phasing in these
courses over a three year period. 312 The United Kingdom announced in 2013 that beginning in
September 2014, schools would be required to incorporate personal finance concepts into their

308 Id.
309 OECD, IMPROVING FINANCIAL EDUCATIONAL AWARENESS ON INSURANCE AND PRIVATE PENSIONS 106 (2008).
310 Id. at 107 (citing Wheatcroft study in 2004)
311 Knight, supra note 293; U.K. Dept. of Education, supra note 293, at 94, 97, 149; Kadlec, supra note 293.
312 Knight, supra note 293.
mathematics and citizenship courses for Key Stage 3, which covers students in years 7 to 9 in school, which correspond to ages 11 to 14.\textsuperscript{313}

Even when formal financial skills classes are offered, little empirical evidence exists that such programs work.\textsuperscript{314} Financial literacy is a favorite solution proposed by politicians and academics to solve the lack of financial skills amongst most Americans. Currently, twenty different federal agencies are running fifty-six different financial literacy programs.\textsuperscript{315} A 2011 U.S. Government Accountability Office (GAO) report noted:

\begin{quote}
Federally funded financial literacy programs cover a number of topics (such as saving for retirement and avoiding fraudulent practices), target a range of audiences (such as schoolchildren, prospective homeowners, and investors), and include a variety of delivery mechanisms (such as classroom curricula, print materials, Web sites, broadcast media, and individual counseling).\textsuperscript{316}
\end{quote}

In 2003, Congress attempted to get these programs to coordinate their efforts by creating the Financial Literacy and Education Commission.\textsuperscript{317} In 2006, this commission issued the National Strategy for Financial Literacy, which the GAO criticized for primarily describing the existing programs and did not establish a strategic vision.\textsuperscript{318} The commission issued a new national strategy in 2010 and has promised to issue a plan to implement this strategy in 2011.\textsuperscript{319} The

\begin{thebibliography}{99}
\bibitem{Id} \textit{Id.} at 151.
\bibitem{Id} \textit{Id.}
\bibitem{Id} \textit{Id.} at 152.
\bibitem{Id} \textit{Id.}
\end{thebibliography}
commission, however, has no independent staff or budget and cannot compel the agencies implementing the financial literacy programs to comply with its national strategy. As a result, coordination and duplication problems persist.

Assuming that these coordination and duplication problems could be fixed, little evidence exists supports the assertion that financial literacy programs actually improve people's financial skills. Politicians and others who support financial literacy programs rely on a limited number of studies that purport to show that financial literacy works. Unfortunately, all of these studies have serious flaws that undermine their ability to support the proposition that financial literacy programs work. Indeed other studies have concluded that lengthy educational programs, ranging from a semester-long high school course to 18 months of credit counseling, have failed to have a positive impact on the participants’ financial literacy skills.

Without any empirical data to show that financial literacy programs work, the repeated calls for more financial educational programs becomes merely an expression, at best, of a hope.

320 Id.
321 Id. at 152-153.
322 For example, Lauren Willis examined the studies cited in a 2005 bill to promote financial education and in former Federal Reserve Chairman Ben Bernanke’s 2006 testimony before the Senate Committee on Banking, Housing and Urban Affairs, which included Sharon M. Danes, Evaluation of the National Endowment for Financial Education High School Financial Planning Program 5 (2003-2004); Abdighani Hirad & Peter Zorn, Prepurchase Homeownership Counseling: A Little Knowledge is a Good Thing, in Low-income Homeownership: Examining the Unexamined Goal 146, 146 (Nicholas Retsinas & Eric S. Belsky eds., 2002); Marsha Coughlan & Peter Zorn, Consumer Literacy and Creditworthiness 23, 25 (Apr. 7-8, 2005); Kimberly Gartner & Richard M. Todd, Effectiveness of Online "Early Intervention" Financial Education for Credit Cardholders 8, 15 (July 2005); Gregory Elliehausen et al., The Impact of Credit Counseling on Subsequent Borrower Credit Usage and Payment Behavior 49-50 (Jan. 2003). Willis 2009, supra note 314, at 419 n. 16, 424-450.
323 For a detail analysis of the problems with each of the studies listed in n. 310, see Willis 2009, supra note 314, at 424-450.
324 Lewis Mandell and Linda Schmid Klein, The Impact of Financial Literacy Education on Subsequent Financial Behavior, 20 J. OF FIN. COUNSELING & PLANNING 15, 21 (2009) (“In spite of the reportedly excellent personal finance course offered by all three high schools in the community studied, a comparison of those who did and did not take the course does not demonstrate a meaningful positive impact for those taking the financial education course.”); Jinhee Kim, E. Thomas Garman, and Benoit Sorhaindo, Relationships Among Credit Counseling Clients' Financial Wellbeing, Financial Behaviors, Financial Stressor Events, and Health, 14 J. OF FIN. COUNSELING AND PLANNING 75, 84 (2003) (“This study showed that there were no significant and direct effects of credit counseling on financial behaviors, financial well-being, or health.”).
that they will work. At worst, these calls reflect an ideological view that allows some to continue to advocate the deregulation of the financial markets without having to deal with the market imperfections caused by the substantial portion of the public who lack the skills to successfully operate in such an environment.\footnote{Willis 2009, supra note 314, at 419.}

While Australia recognizes the need for financial literacy programs, it does not believe that it is reasonable to rely on them as the sole solution to the lack of financial skills of a substantial portion of its population. In 2010, the Cooper Review articulated as one of its Ten Policy Principles that:

Financial literacy is an important long term goal, but a compulsory superannuation system cannot depend on all its participants having the skills necessary to comprehend complex financial information or being investment experts.\footnote{Cooper Review, supra note 96, at 4.}

With this principle in mind, the Cooper Review attempted to build into the superannuation system a default option that would work for people who do not have the financial skills to select their own investment options from the range of choices offered.\footnote{Id. at 9.} This new default option was to provide a diversified investment portfolio that would charge low fees and that would be managed by trustees in the best interests of the plan’s beneficiaries.\footnote{Cooper Review, supra note 96, at 11, 18-19, 25 (The trustees of MySuper plans should be required to “formulate and give effect to a single, diversified investment strategy at an overall cost aimed at optimising fund members’ financial best interests, as reflected in the net investment return over the longer term.”).} The Cooper Review called this new default option MySuper and the Australian Parliament enacted into law.\footnote{Cooper Review, supra note 96, at 9-12; SISA, supra note 172, Part 2C, §§29R-29XC.}

Today most Australian employees may choose to have their superannuation contributions invested in one of three options: (1) the default plan set up by their employer called MySuper, (2)
an APRA regulated fund or retirement savings account (RSA), or (3) a self-managed super fund (“SMSF”).

Beginning on Jan. 1, 2014, if an employee does not make a choice, their employer is obligated to automatically enroll the employee in the MySuper plan that the employer has designated as the default option. Any Australian employee enrolled in a MySuper plan as the default option can later choose to have their superannuation contributions moved into an APRA regulated fund, a RSA, or a SMSF. They, however, cannot opt out of the superannuation system.

MySuper plans must be licensed by APRA and must follow either a single well-diversified investment strategy or a life-cycle strategy. Of the 120 MySuper plans registered with APRA in March 2014, about 81 percent of them followed a single diversified investment strategy and the remaining 19 percent followed a lifecycle strategy. The superannuation laws do not require these plans to have the same mix of assets or investment strategies. The industry and corporate sectors in Australia chose to rebrand their existing default options, which were balanced funds, as MySuper plans while the retail sector was more willing to adopt lifecycle plans as their MySuper plans. MySuper has increased the diversity of investment options for Australian workers. Lifecycle plans rarely were used as the default plan option prior to the creation of MySuper.

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331 Superannuation Legislation Amendment (Choice of Superannuation Funds) Act 2004, supra note 330, §32C(2); Chant, et.al., supra note 255, at 4.

332 SISA, supra note 172, Part 2C, §29TC.

333 Chant, et.al., supra note 255, at 2.

334 Id. at 6. Lifecycle plans comprised only 4 percent of the industry MySuper plans and only 3 percent of corporate MySuper plans. Id. Lifecycle plans, however, made up almost 60 percent of the retail MySuper plans. Id.

335 Id. at 3.

336 Id. at 11 n.13.
b. Individuals are restricted in their choice of investments and thus, cannot adopt some of the strategies that large pension fund managers may use to safeguard their investments. In the United States, the employer sponsoring the 401(k) plan or a similar plan heavily influences who will manage the plan and the range of options that it will offer. As long as the plan offers at least three reasonable options, other than the employer's stock, it is considered a valid plan under ERISA and the PPA.\textsuperscript{337} Initially, the average U.S. employee had a very limited number of funds from which to choose.\textsuperscript{338} Today the average defined contribution plan offers eighteen funds.\textsuperscript{339} This is still a far cry from the much wider range of investment options open to the defined benefit plan fund managers for any medium or large pension fund.

Even when they have a range of options, many U.S. employees have a tendency to overinvest in the stock of their employer, which is also referred to as company stock.\textsuperscript{340} In the wake of the debacle that such investments had for the Enron employees, the portion of employees’ 401(k) assets held in company stock has declined.\textsuperscript{341} Neither ERISA nor the PPA place any limits of the amount of 401(k) assets that can be held in company stock, although ERISA does limit the amount of company stock that a defined benefit plan may hold to 10 percent or less of the fair market value of the plan’s assets.\textsuperscript{342} The PPA requires that employers

\textsuperscript{337}Pozen and Hamacher, supra note 243, at 287.
\textsuperscript{338} Id.
\textsuperscript{339} Id.
\textsuperscript{340} Schultz, supra note 246, at 209 (More than 10 percent of the total assets of 401(k) plans is invested in the employers’ stock, which would violate diversification rules if this was occurred in a defined benefit plan.); Ghilarducci, supra note 243, at 132-135; Jack VanDerhei, Sarah Holden, Luis Alonso, and Steven Bass, 401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2012, EMPLOYEE BENEFIT RESEARCH INST., ISSUE IN BRIEF, Dec. 2013, at 19 (over 2 million U.S. workers have more than 20 percent of their 401(k) assets invested in company stock and over 600,000 have over 80 percent of their 401(k) assets invested in company stock). Ghilarducci noted that in U.S. companies where employers match employee contributions with the employers’ stock, “the average worker has 41 percent of her 401(k) account assets invested in the employer’s stock.” Ghilarducci at 134.
\textsuperscript{341} Ghilarducci, supra note 243, at 132-134; VanDerhei, et.al., supra note 340, at 22.
\textsuperscript{342} Ghilarducci, supra note 243, at 132-134; 29 U.S.C. §1107 (contains ERISA limitation on defined benefit plan’s acquisition of employer securities and real estate).
allow employees to sell off any of their employer's stock that they are holding in their defined contribution after the employee has worked for the employer for at least three years.\textsuperscript{343} This change is an improvement over what occurred with Enron, which prevented employees from selling the Enron shares held in their defined benefit plans until after they reached 50 years old.\textsuperscript{344} Nevertheless, many employees are unlikely to diversify their portfolios after passing this three year mark because of inertia and, thus, will continue to be overinvested in company stock.\textsuperscript{345}

The defined contribution plans in the United Kingdom typically offer a narrower range of options than those in the United States. Over half the defined contribution plans in the United Kingdom offered ten or fewer funds for an employee to choose from in 2006.\textsuperscript{346} Six percent of the defined contribution plans only offered a single fund for employees to choose.\textsuperscript{347} Only 23 percent offered more than 20 fund options from which employees could choose.\textsuperscript{348}

These options will expand somewhat in the future under the reforms mandating that all U.K. employers contribute at least 3 percent of an employee’s qualifying earnings to a defined contribution plan. As part of these reforms, the U.K. government transformed the Personal Accounts Delivery Authority into the National Employment Savings Trust (“NEST”) Corporation.\textsuperscript{349} NEST has created a series of retirement date funds that employers may choose

\begin{thebibliography}{99}
\bibitem{343} PPA, \textit{supra} note 162, §901 (codified 26 U.S.C. 401).
\bibitem{346} Alistair Byrne, Debbie Harrison, and David Blake, \textit{Dealing with the Reluctant Investor: Innovation and Governance in DC Pension Investment} 29 (Pensions Institute, 2007) (citing data from the National Association of Pension Funds Annual Survey for 2006).
\bibitem{347} Id.
\bibitem{348} Id.
\bibitem{349} NAT’L. EMP. SAVINGS TRUST, \textit{ANNUAL REPORT AND ACCOUNTS 2012/13} 6 (2013).
\end{thebibliography}
to use as the default plans under the new employer mandate.\textsuperscript{350} NEST describes its investment strategy as one that concentrates on establishing an employee’s retirement account when she is in her twenties, growing it as much as possible in her thirties, forties, and early fifties, and then gradually shifting the funds into more conservative investments in preparation for the employee to take the funds as a lump sum or using them to purchase annuities or other financial instruments to provide a regular income for the remainder of her life.\textsuperscript{351}

Most Australian employees may choose to have their superannuation contributions invested in either the default plan set up by their employer called MySuper, an APRA regulated fund or a RSA, or a self-managed super fund.\textsuperscript{352} According to APRA, Australia had 294 large APRA-regulated funds and more than 537,000 small funds, of which over 99 percent are SMSFs in June 2014.\textsuperscript{353} The vast majority of employees, however, simply stay with the default option offered by their employer.\textsuperscript{354} Employees staying with the default option are enrolled in either a balanced diversified fund or a lifecycle fund.

Australia’s system is not perfect. The choices offered to Australian workers have not fostered sufficient competition to reduce fees or produce more robust returns. The OECD found that Australia was one of two OECD countries with negative returns on its pension assets in

\begin{itemize}
\item \textsuperscript{350} \textit{Id.} at 13-14.
\item \textsuperscript{351} Nat’l. Emp. Savings Trust, NEST for Savers, Your Money in NEST, NEST Retirement Date Funds, Your Retirement Date Fund, \url{http://www.nestpensions.org.uk/schemeweb/NestWeb/public/NESTforSavers/contents/your-nest-retirement-date-funds.html}
\item \textsuperscript{353} APRA, \textsc{Statistics: Quarterly Superannuation Performance (Interim Ed.) June 2014} 9 (Aug. 21, 2014), \textit{available at} \url{http://www.apra.gov.au/Super/Publications/Documents/June_2014_Quarterly_Superannuation_Performance.pdf?WT.sи_cs=1}. Large APRA-regulated funds are any funds with more than four members. \textit{Id.}
\item \textsuperscript{354} FIN. SYSTEM INQUIRY, INTERIM REPORT 2-101-2-105 (July 2014) [hereinafter Australian Fin. System Inquiry Rpt.].
\end{itemize}
The Australian Financial System Inquiry in its interim report released on July 15, 2014 criticized Australian superannuation plans for their lack of competition, high fees, and high operating costs. The Inquiry found that individuals who receive lump sum payments or who have control over the withdrawals from their defined contribution accounts frequently do not manage their funds well. All of the hard work that plan participants have engaged in to save and grow their defined contribution accounts can be undone if they do not manage the funds in a way to ensure that they do not outlive their funds. Some participants use lump sum payments, early withdrawals, or borrowing from their defined contribution plans to pay off debts or to go on a spending spree and as a result, they burn through their retirement savings too quickly. This problem exists in both the United States and Australia, although Australia more severely restricts the ability of its citizens to borrow or take early withdrawals from their superannuation plans.

The problem of retirees outliving their pensions is less acute in the United Kingdom where 75 percent of those with defined contribution plans use the funds to buy an annuity.

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355 OECD, PENSIONS IN MARKETS IN FOCUS 14 (2013).
356 Australian Fin. System Inquiry Rpt., supra note 354, at xxiii, 1-15, 1-16. On Dec. 2013, Australian Treasurer Joe Hockey, MP, established a Financial System Inquiry committee chaired by Murray to investigate the problems with the Australian financial system, including the superannuation system. Id. at xi.
358 Fletcher, supra note 357; Australians Outliving Their Super Funds, supra note 357; Australian Fin. System Inquiry Rpt., supra note 354, at xxxix.
359 Djuna Thurley, PENSIONS: Income Drawdown, H.C. Library S.N. 712. May 23, 2014, at 4, available at: http://www.parliament.uk/business/publications/research/briefing-papers/SN00712/pensions-income-drawdown [hereinafter Thurley 2014]. In this context, an annuity is an insurance policy that usually pays a fixed amount each month to the beneficiary for the remainder of their life. It ensures that the beneficiary will not outlive his funds.
Prior to 2011, U.K. law required that 75 percent of the funds remaining in a defined contribution plan had to be used to purchase an annuity when a person turned 75 years old. Prior to age 75, the U.K. laws set limits on the amounts that pensioners could withdraw from the defined contribution plans on an annual basis.

The U.K. government passed a law to eliminate the compulsory annuitization requirement, which took effect on April 6, 2011. The U.K. government promoted this measure as a way of providing individuals with greater flexibility to manage their own retirement funds. A significant concern, however, is that the abolition of this requirement will result in far fewer U.K. citizens purchasing annuities and will result in an increase in the number of pensioners who will outlive their retirement savings.

C. Impact on Financial Markets - Benefits

The major benefit for the financial markets from defined contribution plans is the revenues that they generate for the firms who manage the mutual funds and other products sold to plan participants. Investors held about US$30 trillion in mutual fund assets worldwide in 2014. The mutual fund industry has been one of the greatest beneficiaries of this shift from defined benefit plans to defined contribution plans. In the 1950s and 1960s, mutual funds

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The size of the payments, however, depends on how much money is invested in the annuity and the life expectancy of the purchaser.

360 David Blake, Edmund Cannon, and Ian Tonks, ENDING COMPULSORY ANNUITISATION 14 (Pensions Institute, 2010).
361 Thurley 2014, supra note 359, at 4.
363 Id.
364 Blake, Cannon, & Tonks, supra note 346, at 10-11.
struggled to get individual investors interested in their products.\textsuperscript{366} Beginning in the 1970s with the creation of the individual retirement accounts in the United States and similar products in Australia and the United Kingdom, mutual funds began to grow.\textsuperscript{367} They took off in the 1980s with the growth of defined contribution plans.\textsuperscript{368} In 1980, only 5.7 percent of U.S. households owned mutual funds but by 2013, 46.3 percent did.\textsuperscript{369} In 2013, mutual funds managed 60 percent of the assets in U.S. defined contribution plans, which was three times as much as the 20 percent that mutual funds managed in 1993.\textsuperscript{370}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure24.png}
\caption{United States IRA Assets by Source Selected Years, 1995-2013 (billions of US dollars)\textsuperscript{371}}
\end{figure}

\textsuperscript{366} Pozen and Hamacher, supra note 243, at 9-10; 2014 Investment Company Fact Book, supra note 365, at inside front cover.
\textsuperscript{367} Pozen and Hamacher, supra note 243, at 10-12, 15.
\textsuperscript{368} Id. at 11-15.
\textsuperscript{369} Id. at 17.
\textsuperscript{370} 2014 Investment Company Fact Book, supra note 365, at 11.
\textsuperscript{371} Id. at 138.
Mutual funds can invest in a relatively wide range of products - stocks, bonds, commodities, real estate, options, futures, and many more, as long as they are liquid because mutual funds must allow their shareholders to redeem their shares on any given business day. As a result, all of the providers of those products have benefitted from the increased demand for their products. Mutual funds and money market funds, which are also a frequent investment option in defined contribution plans, even invested in many of the riskier products that have been blamed for contributing to the recent financial crisis, including securitized subprime loans and credit default swaps (“CDSs”). As a result, large swaths of the financial services industry has a vested interest in promoting the shift to defined contribution plans and lobbying against any restrictions that might limit where the funds of those plans can be invested.

D. Impact on Financial Markets - Risks

The shift to defined contribution plans carries substantial risks for the financial markets. Poorly informed individuals do not always invest wisely. Their poor investment decisions lead to financial products being mispriced, bubbles being created, and riskier products being sold to those seeking higher returns. In addition, the creation and growth of defined contribution plans has put pressure on the remaining defined benefit plans to allocate larger portions of their portfolios to riskier alternative investments in order to obtain the returns necessary to keep the

374 Broadbent, Palumbo, and Woodman, supra note 2, at 42-43.
375 Id.
sponsoring firms’ contributions to a minimum. All of these factors may have contributed to recent financial crisis.

1. The shift decreases market efficiency.

Defined contribution plans do not currently have access to many of the long-term assets in which defined benefits plans invest. This hinders market efficiency. For example, defined benefit plans, like the California Public Employees’ Retirement System (Calpers), invest as much as 10 percent of their portfolios in private equity investments with venture capital firms and similar entities. Those firms invest the funds in small or entrepreneurial businesses that use the funds to grow and develop new products. Defined contribution plans generally do not offer this as an option for its investors because such investments usually are illiquid. The mutual funds that defined contribution plans offer may include one or two funds that claim to invest in small or medium businesses but these are usually small or medium-size publicly traded firms, which are not the same type of private start-up firms that the venture capitalists are investing in.

In addition, defined contribution plan participants investing in a fund for small or medium-size firms must have a high risk tolerance as these firms go bankrupt with a greater frequency than do large firms. Many defined contribution plan participants tend to follow the same investment advice - "keep your fees low, invest in index funds", "more than half of all mutual funds perform worse than the S&P 500, invest in an S&P500 index fund", etc. In this

376 See infra notes 391-403 and accompanying text.
378 Broadbent, Palumbo, and Woodman, supra note 2, at 42-43.
380 Most personal finance magazines and websites have articles expounding this advice. Two of the major personal finance magazines in the United States are Kiplinger and Money Magazine. They both had articles touting this sort of advice on their websites. See Walter Updegrave, 4 Simple Rules For Juicing Up Your Retirement Fund, MONEY
scenario, funds that a defined benefit plan might have invested to help grow small and entrepreneurial businesses mostly likely will be diverted into a stock index fund, which is a common option in many 401(k) plans.\textsuperscript{381}

2. The shift encourages the development of asset bubbles.

Defined contribution plans generally offer their participants a limited range of investment options. In addition, across employers the menu of investment options tends to be very similar. Defined contribution plans in the United States typically offer about eighteen different funds, which might include a conservative bond fund, a money market fund, a stock index fund, a small companies fund, and an international fund.\textsuperscript{382} In Australia, MySuper plans are either diversified balanced funds or lifecycle funds that invest in a mix of stocks, bonds, and other assets.\textsuperscript{383}

As a result, plan participants are essentially investing in the same assets and driving up the demand for those assets.\textsuperscript{384} For example, passive investing in stock and bond index funds, such as U.S. S&P500 index funds or Australian shares S&P/ASX 200 index funds, has grown


\textsuperscript{382} Pozen and Hamacher, \textit{supra} note 243, at 287.

\textsuperscript{383} Chant, et.al., \textit{supra} note 255, at 4; RBA 2014, \textit{supra} note 58, at 30 (In 2014, 40 percent of superannuation funds were invested in equities and units in trusts, 15 percent in overseas assets, and 15 percent in cash and deposits.).

\textsuperscript{384} For example, passively managed stock index funds invest in the same stocks tracked by a particular index, such as the S&P500 in the United States or the FTSE 100 in the United Kingdom. Thus, an investment in an S&P500 index fund offered by Vanguard or Fidelity will invest in the exact same stocks. In the United States, passively managed stock and bond funds have received more funds in recent years than actively managed funds. Grind, \textit{supra} note 380. (“Investors poured a net US$336 billion into passively managed stock and bond funds in 2013, handily beating the US$53 billion invested in traditional mutual funds of the same type.”)
substantially in the past fifteen years as a way of diversifying while keeping fees low. The total net assets in U.S. stock and bond index funds grew from US$384 billion in 2000 to US$1,735 billion in 2013.\textsuperscript{385} If demand exceeds supplies, then asset bubbles form as prices exceed the actual values of the assets being traded. The dot.com bubble in the late 1990s is an example of this phenomenon.\textsuperscript{386}

Thus, defined contribution plans pose a serious risk of creating asset bubbles in those products (stocks, gold, etc.) that plan participants have been advised to invest in. An investment strategy that works if one person follows it or if a small group follow it, may not work when millions of people are doing the exact same thing.

3. The shift encourages some individuals to invest in risky financial products in an effort to obtain the returns needed to grow their accounts enough to comfortably retire.

Many employees in defined contribution plans have heard the dire warnings that most people with such plans will outlive their funds.\textsuperscript{387} At least some of these employees have adopted very aggressive investment strategies in an effort to maximize their returns, such as investing 100 percent of their portfolios in stocks because the "experts" say that, in the long run, stocks outperform bonds. If enough plan participants are following this strategy, this can lead to a mispricing of the affected assets and bubbles in the prices of those assets.

\textsuperscript{385} 2014 Investment Company Fact Book, \textit{supra} note 365, at 89.
In addition, the financial services industry might be tempted to create new financial products that promise higher returns. Mortgage-backed securities and other asset-backed securities are examples of instruments that offered a fixed rate of return, like bonds, but usually at higher interest rates. The demand for these products surged in the late 1990s and early 2000s when the interest rates on Treasury bonds and similar government bonds were very low. The investors who purchased these instruments thought that they were buying a relatively conservative investment with a high rate of return.

The demand for mortgage-backed securities was so great that the banks and mortgage brokers weakened the lending requirements for home loans because they knew that they could easily securitize the mortgages and pass any risks along to the ultimate holders of those securities. Thus, participants in defined contribution plans may have played a role in the financial crisis through their participation in the securitization markets.

4. The shift increases the pressure on defined benefit plans to achieve higher rates of return.

Institutional investors, including pension funds, comprise the largest source for private equity investments. Private equity includes venture capital, angel investors, and corporate investments. Generally, pension funds prefer to use a fund to invest in private equity rather than

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389 Id. at 72.

390 Id. at 105-111.

391 Kasper Meisner Nielson, Institutional Investors and Private Equity, 12 Rev. of Fin. 185, 186 (2008).
to make such investments directly because they usually lack the personnel and resources to select suitable direct investments.\footnote{Josh Lerner, Antoinette Schoar, and Wan Wong, \textit{Smart Institutions, Foolish Choices? The Limited Partner Performance Puzzle}, 62 J. OF FIN. 731, 735-736 (April 2007).}

Defined benefit plans need high rates of return in order to meet their actuarial targets and remain fully funded without additional infusions of capital from the businesses sponsoring them. In order to achieve those high rates of return in the years leading up to the financial crisis, pension funds increasingly turned to hedge funds.\footnote{\textit{Institutional Investors Making a Big Splash in the Hedge Fund Pool}, KNOWLEDGE@W.P.CAREY (April 12, 2006), available at \url{http://knowledge.wpcarey.asu.edu/article.cfm?articleid=1227#}} One article quoting Herbert Kaufman, a finance professor at W.P. Carey School of Business, Arizona State University, noted:

"Pension fund managers are in sort of a desperate situation right now," Kaufman said. These managers need returns on investments based on an actuarial assumption to their pension obligations -- frequently about 8 percent. "And those equity and bond returns, their traditional portfolio holdings, have evaporated in this environment," he said. "So they looked for alternative investments to raise their overall returns to their assumed 8 percent, which they hadn't been able to achieve."\footnote{\textit{Id.}}

Prior to the financial crisis, pension funds typically invested 10 percent or less of their investment portfolio in hedge funds.\footnote{\textit{Id.}} Some commentators did concede that if the amounts invested in hedge funds or other alternative investment instruments increased significantly that this would be "very worrisome."\footnote{\textit{Id.}} One of the reasons for this concern is that hedge fund investments require a lock-up commitment of between one and twelve years, during which the

\footnote{Not all institutional investors are as conservatives as pension funds. Harvard and some other universities invest 30-40 percent of their endowments in hedge funds and other alternative investment allocations. \textit{Id.} (quoting David Friedland, president of the Hedge Fund Association).}

\footnote{\textit{Id.}}
investors cannot withdraw the funds that they invested in the hedge fund.\textsuperscript{397} In addition, it is harder for hedge funds to deliver the exceptionally high returns that they originally touted, as much as 30 percent or more, when more money is attempting to pursue the same strategies.\textsuperscript{398} In 2006, before the financial crisis began, hedge funds were struggling to meet their investors' expectations. David Friedland, the then President of the Hedge Fund Association, noted in 2006 that the hedge fund industry was experiencing deteriorating market conditions due to the substantial sums being invested in hedge funds and commented:

\begin{quote}
What I mean by [deteriorating market conditions] is it's a lack of market investment opportunity, coupled with increased monies facing those investing opportunities that lead to a reduction in overall returns in that particular area. When you've got more and more dollars chasing fewer and fewer deals, the spread tends to narrow and the risks tend to increase. You'll find that there will be a lowering of return expectations in some of those strategies, because of that."
\end{quote}

\textsuperscript{399} In all three nations, the trustees for the firm sponsored defined benefit plans are not supposed to be managing the plans for the benefit of the sponsoring firm. Instead, the trustees are legally required to manage the defined benefit trust for the beneficiaries. Unfortunately, many studies have found that the many of the managers and trustees of defined benefit plans are influenced by what the sponsoring enterprise wants.

One study found that defined benefit plans with a high proportion of insider-trustees and with heavily indebted sponsoring firms tend to invest a larger portion their assets in risky equity

\begin{flushleft}
\textsuperscript{397} Id.
\textsuperscript{398} Id.
\textsuperscript{399} Id.
\end{flushleft}
investments. The study also found that the pension plans with a high proportion of insider-trustees also results in the sponsoring firms making smaller contributions to the pension plan. Other studies have found that extremely underfunded pension plans tend invest in more conservative fixed income securities while pension plans that are only moderately underfunded or overfunded will invest in riskier equity securities. The sponsoring firm for an extremely underfunded pension plan may have decided that it will declare bankruptcy or take other actions to close the defined benefit plan and turn it over to the PBGC. As a result, it does not want to take any actions that might put that process in jeopardy or potentially give rise to claims that the firm should have made additional contributions to the pension plan. Sponsoring firms for moderately underfunded pension plans might encourage risky investments in order to decrease the likelihood that the firms will have to make larger minimum contributions in the future to correct the underfunding problem.

V. Lessons From the Experiences of Australia, the United Kingdom, and the United States

What the above analysis highlights is that the shift to defined contribution plans has created significant risks and costs both for works and for the financial markets. Australia, the United Kingdom, and the United States would benefit if they learned from the experiences and the experiments that each has undertaken as they have attempted to manage these risks and costs.

400 João Francisco P.D. Cocco and Paolo Volpin, The Corporate Governance of Defined Benefit Pension Plans: Evidence from the United Kingdom, 63 FINANCIAL ANALYSTS JOURNAL 70 (2007). An insider-trustee is a trustee of the pension plan trust who also works as a manager in the business that is sponsoring the pension plan.
401 Id.
403 Comprix & Muller (2006), supra note 402.
If each nation applied the lessons learned from the others, they could mitigate some of the risks posed by the shift to defined contribution plans.

1. In order to increase coverage, all employers should be required to automatically enroll their employees in a defined contribution plan or an individual retirement account while giving the employees an option to opt out.

Voluntary plans to encourage employers to offer defined contribution plans and to encourage employees to contribute have left roughly half of U.S. employees without any retirement plan. The only way that Australia and the United Kingdom found to extend retirement plan coverage to a supermajority of the employees in their respective countries was to impose mandatory contributions to a retirement plan with no or very few options for opting out of the retirement plan. The United States lacks the political will at this time to enact a law mandating that employers or employees contribute to a defined contribution retirement plan because of the recent controversies surrounding the requirement that individuals purchase insurance under the Patient Protection and Affordable Care Act.404

The United States, however, might be willing to enact a requirement that employers must automatically enroll their employees in a defined contribution plan or individual retirement account as long as the employees have the option of opting out. The law would specify that the employer would invest a fixed percentage of employee’s salary in these programs. Employees who wanted to invest a larger amount would have to take steps to do so. Additional research may be needed in order to determine what the appropriate percentage of an employee’s salary to

be invested should be. Most automatic enrollment plans in the United States only invest 3 percent of an employee’s salary, which many experts deem to be too low to provide adequate funds for retirement. Nevertheless, it might be a useful starting point in order to get employers and employees to buy into the concept of automatic enrollments.

As with existing automatic enrollment programs for defined contribution plans, employers would need to select a default option to invest the contributions in when employees fail to designate an investment option. The law mandating automatic enroll should require that the company select a diversified fund that would best meet the needs of the majority of its employees. The law mandating automatic enrollment should model the requirements for the default options after the requirements used for the MySuper programs in Australia and the NEST plans in the United Kingdom. The MySuper and NEST plans often rely on target date funds. Target dates funds are tailored to meet the changing risk requirements of an employee as he gets closer to retirement and thus, are managed in ways that are similar to how a defined benefit plan would manage its assets to meet its future pension obligations. Thus, these plans are designed to minimize the investment risk for the employee through diversification and reallocating assets to more conservative investments as the employee nears retirement.

President Barack Obama proposed something similar in his 2014 State of the Union speech. President Obama proposed that employers offer a myRA or My Retirement Account to their employees, in which employers that do not already offer a defined contribution plan would allow their employees to set up and contribute to an individual retirement account through payroll deductions. MyRA, however, is an optional program. While the Obama

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406 Id.
Administration intends to encourage employers to do this, it is not mandating that they make this option available to their employees.\textsuperscript{407} It has included a requirement in its budget proposal that would mandate that employers automatically enroll employees in a myRA if the employer does not offer a defined contribution plan.\textsuperscript{408} Unfortunately, given the existing gridlock in Washington, it is unclear if that proposal will be part of any budget that Congress eventually enacts.

2. Make withdrawals harder to increase the likelihood that individuals will reach retirement with sizable assets in their defined contribution plans.

The United States would benefit if it modified its laws governing defined contribution plans to make it harder for individuals to tap into their defined contribution funds before they reach retirement age. Both Australia and the United Kingdom have much tougher restrictions on the ability of an individual to access the funds in their defined contribution accounts. As a result, they avoid the problem of the defined contribution accounts being raided for non-emergency reasons.

According to a study by Aon Hewitt, about 42 percent of employees who changed jobs in 2010 cashed out their defined contribution retirement accounts instead of rolling them over or leaving them with their former employer.\textsuperscript{409} The U.S. Government Accountability Office

\begin{footnotesize}
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\textsuperscript{407} Id.
\textsuperscript{408} Id.
\textsuperscript{409} AON HEWITT, LEAKAGE OF PARTICIPANTS’ DC ASSETS: HOW LOANS, WITHDRAWALS, AND CASHOUTS ARE ERODING RETIREMENT INCOME 10 (2011).
\end{footnotesize}
estimated that funds withdrawn from defined contribution plans when an individual changed or lost jobs equaled approximately US$74 billion in 2006.⁴¹⁰

About 6.9 percent of workers who were not changing jobs made an early withdrawal from their defined contribution account in 2010.⁴¹¹ Usually these withdrawals or loans from defined contribution plans are not the result of emergency circumstances.⁴¹² In 2010, 80 percent of the early withdrawals were for non-hardship reasons.⁴¹³ In the United States, approximately 65 percent of the loans from 401(k) plans are for non-emergency reasons.⁴¹⁴

People naturally have a tendency to prefer short-term goals and desires over long-term goals and desires, which makes it difficult to get people to save and invest enough for retirement to begin with. Allowing individuals to easily access the funds in the defined contribution plans only exacerbates this problem.

In addition, one of the reasons that the United States provides tax relief for funds in defined contribution accounts is to encourage savings for retirement and not for other purposes. About 46 percent of the funds borrowed by Americans from their 401(k) plans, however, are used to pay off other debts, including credit card debts.⁴¹⁵ When borrowing from a defined contribution account to pay off other debts, individuals are effectively getting a tax subsidy for their consumption because the borrowed funds were not taxed when earned. Congress did not

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⁴¹¹ Aon Hewitt, supra note 409, at 7.
⁴¹³ Aon Hewitt, supra note 409, at 7. The average amount of money withdrawn in connection with non-hardship withdrawals was almost three times the average amount of money withdrawn for a hardship withdrawal --US $15,480 for non-hardship withdrawals vs. US$5,510 for hardship withdrawals. Id. About half of the hardship withdrawals were to avoid an eviction or a foreclosure. Id. at 8.
⁴¹⁴ Dangers of Borrowing, supra note 412.
⁴¹⁵ Id.
intend to subsidize consumption borrowing when it created the tax exemptions for 401(k) plans and other defined contribution plans.

Americans do not need additional incentives to borrow as they already borrow too much. Household debt as a share of U.S. GDP rose from about 45 percent in 1975 to almost 100 percent in 2007. While household debt as a share of U.S. GDP has declined to about 80 percent in the first quarter of 2014, this downward trend may reverse as soon as aggregate consumer debt grew in 2013-2014 for three consecutive quarters (third and fourth quarters of 2013 and the first quarter of 2014) for the first since the third quarter of 2008.

The United States should amended its laws governing defined contributions to require that the funds be rolled over into another pension plan or an individual retirement account when an individual changes jobs or is terminated from a job prior to the early retirement age for Social Security, which is 62 years old, or the effective retirement age for most Americans, which currently is about 65 years old. In addition, the United States should end the ability of individuals to borrow funds from their defined contribution plans prior to the early retirement age for Social Security or the effective retirement age for most Americans. The law could contain provisions to allow for earlier withdrawals for individuals who are forced into retirement at an earlier age because of their occupations or because of disabilities. The law could also contain provisions to increase the retirement age as the effective retirement age in the United States:

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418 OECD Effective Age of Retirement for Men, supra note 26; OECD Effective Age of Retirement for Women, supra note 26
States rises because its aging population is working longer or as the Social Security laws are amended to increase the age when Social Security may be collected.

Obviously, one concern about instituting such changes is that they will discourage some individuals from contributing to their employers’ defined contribution plans. It is unclear how many individuals think about their ability to make early withdrawals or to borrow from their defined contribution plans when they initially choose to invest in them.

Most of the leakage from retirement accounts is the result of an individual choosing not to roll over their funds into another defined contribution account or individual retirement account when they change jobs. People who elect to not roll over the funds when they change jobs usually were not contemplating whether they will or will not roll over their funds when they make the initial decision to begin investing in a defined contribution plan. Instead more immediate factors at the time of the job change, such as the size of the account balance and whether the individual will be left underemployed or unemployed as a result of the job change, seem to affect the decision about whether to cash out their defined contribution account.\footnote{Susan J. Stabile, \textit{The Behavior of Defined Contribution Plan Participants}, 77 N.Y.U. L. REV. 71, 97 (April 2002) (individuals with small balances are less likely to roll them over than those with large balances); Press Release, Transamerica Ctr. For Retirement Studies, \textit{The Cracked Nest Egg: The Retirement Outlook of Unemployed American Workers} (April 2012) (35 percent of underemployed or unemployed workers have taken a withdrawal from their retirement accounts).}

Furthermore, most borrowing from 401(k) plans seems to occur between the ages of 35 and 45, which might mean that it occurs some years after an individual has made the decision to invest in a 401(k) plan.\footnote{Lu, et.al., \textit{supra} note 410, at 14.} Given that the vast majority of people who are automatically enrolled in a defined contribution plan do not later opt to terminate it, the problem of people being deterred from investing in a defined contribution plan because of the proposed changes on early withdrawals and loans might be minimized by encouraging more companies to automatically...
enroll their employees. On balance, it seems probable that the amount of funds retained in defined contribution accounts by eliminating the leakages due to cash outs, early withdrawals, or borrowings would more than offset any decline in contributions from those individuals who decided not to contribute or not contribute as much because they had lost the flexibility of making cash outs, early withdrawals, and loans.

3. Require that a portion of the funds from defined contribution plans must be used to purchase an annuity or other financial instruments designed to provide a regular income for the remainder of the purchaser’s life should be enacted.

The United States and Australia should consider phasing in a requirement that a portion of defined contribution accounts below a certain limit must be used to purchase an annuity or another financial instrument designed to provide a regular income for the remainder of the purchaser’s life. The United Kingdom should consider reinstituting a requirement to invest a portion of a retiree’s defined contribution assets in annuities and other financial instruments designed to provide a regular income for the remainder of the purchaser’s life.

Requiring annuitization increases the likelihood that retirees would continue to receive funds for the remainder of their lives. According behavioral economist Richard Thaler, people who purchased annuities probably would receive “more annual income for the rest of their lives, compared with people who self-manage their portfolio.”

Despite the fact that economists and financial experts agree that annuities make sense for the vast majority of retirees, programs to try to get individuals to voluntarily purchase annuities have not been successful. According to a study by William Gale and Michael Dworsky, only

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about 10 percent of workers with defined contribution plans purchase annuities when they leave work between the ages of 60 and 69.\textsuperscript{422} The reasons why individuals do not purchase annuities include, but are not limited to, (1) a desire to leave of their assets to their heirs, (2) uncertainty about the “right” choice given the complexity of the available annuity options, (3) concerns about whether they will live long enough to at least break even on their investment, and (4) concerns about whether the company offering the annuity will remain in business long enough to provide the promised benefits.\textsuperscript{423}

There are ways of addressing each of these concerns when establishing an annuitization requirement. For example, by only requiring a portion of the funds to be invested in annuity, individuals would still have the option to leave some funds to their heirs when they died. In addition, they might be able to leave additional sums depending upon the type of annuity that they purchase. There are ways of framing the annuity purchase that can help reduce the concerns about complexity and investment returns. Finally, financial regulators can use prudential regulations to decrease the likelihood that insurance and other financial firms offering annuities or similar products will become insolvent.

Why require an individual to use only a portion of the funds from their defined contribution plans to purchase an annuity or similar instrument? Why not require an individual to annuitize all of their defined contribution funds? If an individual uses all of his defined


\textsuperscript{423} Thaler, \textit{supra} note 421; John A. Turner, \textit{Using Behavioral Economics to Encourage Annuitization by 401(k) Participants and IRA Holders}, \textit{BENEFITS Q.} 18 (Third Quarter 2013).
contribution funds to purchase an annuity, he may be left with no funds or insufficient funds to deal with health shocks and other financial shocks that may arise as he gets older.  

The question then becomes – what portion of the funds in a defined contribution plans should be used to purchase an annuity or other similar financial instrument? The United Kingdom had required that 75 percent of the funds remaining when an individual turned 75. As a rough rule of thumb, that might work as a place to start. Nevertheless, more research needs to be undertaken to determine what level or proportion of the defined contribution funds would work best for balancing the need to ensure that retirees do not outlive their savings and allowing individuals the flexibility to control how their savings are used. It may be that a sliding scale might work out better than a flat requirement that everyone use the same percentage of their defined contribution accounts to purchase annuities. For example, a sliding scale might require individuals with smaller amounts accumulated in their defined contribution plans to annuitize a greater proportion of their funds in order to purchase annuities that would guarantee a certain minimum income for life requirement. In addition, the governments of all three countries should sponsor research into the question of whether phased purchases of annuities or similar instruments during retirement would be preferable to requiring a one-time purchase of these products by a particular age, such as at age 65 or 75, or at a particular event, such as their retirement from work.

Finally, all three nations should allow a broader range of financial instruments to be purchased rather than limiting the choice solely to the purchase of traditional fixed income annuity. The financial services industry has developed a wide range of products to help individuals manage longevity risk. These products include, but are limited to, deferred annuities, traditional fixed income annuities. 

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longevity insurance annuities, life care annuities, managed drawdown products, inflation-indexed annuities, standalone living benefits, variable annuities with guaranteed lifetime withdrawal benefits, money-back annuities, and reverse mortgages.\textsuperscript{425} One of the problems that led to calls to reform or end the requirement to annuitization in the United Kingdom was that rollover annuities were being sold at “exploitative pricing” when compared to the annuities that could be purchased on the open market.\textsuperscript{426} As a result, consumers were not getting a reasonable value from their annuity investments.\textsuperscript{427} Allowing individuals to purchase a range of annuities or similar financial instruments potentially would increase competition that would lead to better products for retirees and would drive down prices.

On the other hand, offering a wider range of products will increase the complexity of the choice that individuals need to make. As a result, the governments in Australia, the United Kingdom, and the United States would need to consider how to frame the decision to allow individuals to make better choices from the range of options.\textsuperscript{428} Part of the solution would be to require that the financial products provide more information about their features in a

\textsuperscript{425} Turner, supra note 423, at 18-23. Deferred annuities do not start to make payments until a set date or event. \textit{Id.} at 19. Longevity insurance annuities are a type of deferred annuity that does not start to pay out until the individual reaches an advanced old age, such as 85. \textit{Id.} at 20. Life care annuities is a bundled product that combines an annuity with long term care insurance. \textit{Id.} at 21. Managed drawdown products, such as Income+ offered by Financial Engines, combines a program of monthly payments from an individual’s retirement funds with a longevity insurance annuity. \textit{Id.} Inflation-indexed annuity takes a traditional fixed income annuity and indexes its payments to adjust for inflation. \textit{Id.} Standalone living benefits is a product that guarantees an investor a specific return, such as 4 percent, on the funds in the account at the time of purchase with income payments starting a set age, such as 65, and continuing even if the underlying account balance is run down to zero. \textit{Id.} at 22. Variable annuity with guaranteed lifetime withdrawal benefits is an annuity that allows the purchaser to select from a variety of investments with the annual payouts from the annuity based on the performance of the investments but for which there is a guaranteed minimum payment for life. \textit{Id.} Money-back annuities is an annuity that will pay a lump sum to the annuitant’s survivors if he dies within a set period of time after purchasing the annuity. \textit{Id.} at 23. A reverse mortgage allows a homeowner to drawdown the equity in his house in order to receive a fixed monthly payment while he continues to occupy the house as his principal residence. \textit{Id.}

\textsuperscript{426} FIN. SERVICES CONSUMER PANEL, ANNUITIES: TIME FOR REGULATORY REFORM 1 (Dec. 2013), available at http://www.fs-cp.org.uk/publications/pdf/annuities%20position%20paper%2020131203.pdf Rollover annuities are annuities offered to individuals by the same companies that had been running the defined contribution plans in which the individuals had invested. \textit{Id.}

\textsuperscript{427} \textit{Id.} at 4.

\textsuperscript{428} Turner, supra note 423, at 17.
standardized format that made comparisons among the available products easier. Programs to better educate individuals about to retire about the available products would also help. As noted above, financial education, however, has its limitations. Thus, it cannot be the only solution to the complexity problem. Finally, the development of a default option into which the funds would be invested if an individual failed to make a choice within an established time frame might help simply matters in this area as it has done in cases where workers are automatically enrolled in defined contribution plans by their employers.

Allowing a broader range of products to be purchased rather than simply requiring a traditional annuity to be purchased would require additional regulatory changes in Australia. Currently, Australia has a number of impediments in its financial markets that prevent its financial services firms from offering the more diverse set of annuities, such as deferred annuities, and long-term care financial products that exist in the United States and the United Kingdom.429

4. Impose fiduciary requirements on the trustees managing the default investment option in a defined contribution plan to manage it in the best interests of the beneficiaries and allow the beneficiaries to enforce this fiduciary requirement.

MySuper plans in Australia were designed to require the trustees of these plans to manage the plans in the best interests of the beneficiaries.430 In addition, Australia set up the Superannuation Complaints Tribunal to handle complaints about the management of superannuation funds without forcing individuals to bring an expensive lawsuit.431

429 Australians Outliving Their Super Funds, supra note 357.
430 Cooper Review, supra note 96, at 11, 18-19, 25.
431 Superannuation Complaints Tribunal, supra note. 205.
No such protections exist in the United States for defined contribution plan participants. In the United States, ERISA imposes fiduciary obligations on the managers of defined benefit plans. ERISA, however, protects employers who choose the companies that will run the defined contribution plans from liability for the losses suffered by plan participants. ERISA also protects the companies managing the funds offered in a defined contribution plan from liability for the losses suffered by plan participants.

U.S. workers would benefit if the law imposed a fiduciary obligation on the company managing the default investment option for defined contribution plans with automatic enrollment to manage it in the best interests of the beneficiaries. In addition, the law would need to allow the defined contribution plans participants to bring causes of actions to enforce this obligation. There are simply too many defined contribution plans in the United States to leave the enforcement of these obligations solely in the hands of a government agency like the U.S. Department of Labor. Given the costs of bringing a law suit, the U.S. government should consider creating a body like the Superannuation Complaints Tribunal to facilitate the enforcement of the default option managers’ fiduciary obligations by plan participants.

5. Conduct more research on the linkages between the investment choices of defined contribution plans and defined benefit plans and the rest of the financial services industry.

433 ERISA, supra note 138, 29 U.S.C. §1104(c); 29 C.F.R. 2550.404C-1 – ERISA Section 404(c) Plans; Stabile 2007, supra note 166, at 314.
434 ERISA, supra note 138, 29 U.S.C. §1104(c); 29 C.F.R. 2550.404C-1 – ERISA Section 404(c) Plans; Stabile 2002, supra note 167, at 362.
Pension plans funnel trillions of dollars into investments in banking, securities, commodities, and insurance products. The linkages between what defined benefit plans and defined contribution plans invest in and the rest of the financial services industry could potentially pose systemic risks to the financial markets and the economy in each of these countries. These linkages do not get enough attention in the United States because the agencies that have the primary responsibility for regulating pensions, such as the EBSA and the PBGC, are different from those that regulate the products and services, in which pension plans invest, such as the SEC, the CFTC, and the Federal Reserve. The Dodd-Frank Wall Street Reform and Consumer Protection Act created the Office of Financial Research (OFR) to investigate systemic risks. Congress or the Financial Stability Oversight Council could task the OFR with investigating such issues and formulating recommendations about how to address them. Australia and the United Kingdom could undertake similar research under the auspices of their systemic regulators, the Reserve Bank of Australia and the Bank of England, respectively.

**Conclusion: Where Do We Go From Here?**

The lessons listed in Part V. are ones that could be implemented in the short- to medium-term to improve the way defined contribution plans are managed. They would address some of the problems posed by the shift from defined benefit plans to defined contribution plans. Getting these changes implemented will be politically difficult because most of them reduce the flexibility of participants to use the money in their defined contribution plans as they see fit.

In the long run, the United States probably will join Australia in mandating some level of contributions by employers and employees to defined contribution plans with greater restrictions on the ability of an individual to opt out. Programs to encourage employers to voluntarily offer
defined contribution plans and to get employees to participate in them failed to reach sizable portions of the population in Australia and the United Kingdom. In the United States, such voluntary measures have left about half of the population without a pension plan. Given the scars left by the battles over the Affordable Care Act, however, it will be years before the United States will be ready to even consider such a mandatory program.

Even if the United States joins Australia and the United Kingdom in mandating contributions to defined contribution plans with extremely restricted opt out options, some individuals will continue to reach retirement age with inadequate funds to support themselves for the remainder of their lives. Women who take time off to care for children and elderly relatives would lose out because they would go for years without making any contributions to a defined contribution plan. Similarly, people who have frequent bouts of unemployment might also reach retirement with an insufficient amount of funds to maintain themselves comfortably in retirement for the remainder of their lives because they too had been unable to make the necessary contributions prior to retirement. Low income workers also may continue to find themselves with inadequate funds at retirement because the mandated percentage of their low salaries was insufficient to build up a sizable nest egg for retirement.

Establishing programs under which the government makes contributions on behalf of low income individuals, the unemployed, and women taking time off to care for relatives might help elevate to some extent the problem of these groups reaching retirement with insufficient funds in their defined contribution plans. Australia already has such programs for low income workers. It is unclear if the United States would be willing to adopt similar programs. In addition, it is not clear how much the government contributions would need to be in order to correct these

435 See infra notes 202, 284-286 and accompanying text.
problems. The Australian government’s contributions to the defined contribution plans of low income workers are very modest. It is likely that these would need to be raised in order to overcome the problem of these groups reaching retirement age with insufficient funds. Thus, more research needs to be done both on the size of government contributions that would be needed to address these problems and on alternative ways of addressing these problems rather than relying on government contributions.

Nevertheless, as the lessons discussed in Part V. illustrate, all three nations would benefit if they applied the lessons to be learned from each other’s experiences wrestling with how to manage the shift from reliance on defined benefit plans to reliance on defined contribution plans for retirement. No nation has a perfect system but each has attributes that might help the others manage this shift better.