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Pension Research Council
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The Origins of Western Military Pensions

Since antiquity, grateful rulers have acknowledged meritorious service of members of their military by awarding them pensions for their efforts. Today, the term "pension" generally refers to cash payments received after the termination of one's working years either in the form of an annuity or in a lump sum. Historically, a much wider range of retiree benefits, survivor's annuities, and disability benefits were also referred to as pensions. In the United States, for example, both the early army and navy pension systems were primarily disability plans. However, disability was often defined to include superannuation or the inability to perform regular duties due to infirmities associated with old age. Over time, the pension plans were expanded to support dependents of deceased veterans and to provide old-age benefits to all qualified retirees. In fact, every disability plan for U.S. veterans eventually became an old-age pension. Thus, these early pension plans were given the responsibility for providing the same range of benefits as the modern U.S. Social Security system, though of course, the size of today's Social Security system far exceeds that of the early military pension plans.

As part of their compensation, both naval and army personnel throughout the Western world have been eligible for some type of pension benefits since at least the eighteenth century. Generally speaking, pensions for military personnel were well established prior to the development of pensions for other public sector workers. Military pensions also antedated pensions for workers in the private sector. Interestingly, the history of pension coverage in developing countries in the twentieth century also follows this basic pattern. National governments first provide pensions to their military personnel and government workers and then pensions are extended to urban employees. The expansion of coverage to self-employed individuals, the agricultural labor force, and other rural workers typically comes much later (World Bank 1994; U.S. Social Security Administration 1999). This chapter provides a brief history of military pensions before 1800, offering a few examples of the coverage and types of pensions available to the veterans of the military forces throughout the history of the West. It is not intended to be exhaustive, but rather the objective is to give the reader a feel for the antecedents of subsequent public sector pensions in the United States. A number of economic and historical connections emerge.

Roman Military Pensions

In the classical world, the military pension typically took the form of a land grant or a special, often semi-public, appointment. These pensions were not necessarily associated with superannuation, but rather were bestowed upon veterans of particular legions after one or more specific (and usually successful) campaigns, and commanders who possessed military skill or political power or, as was usually the case, both could also a expect a pension. The military campaigns in the classical world were often long-term affairs, lasting until one side in the conflict gradually wore down the resistance of their adversaries. For example, Rome conducted three separate campaigns on its eastern frontiers against Mithridates (VI) of Pontus, and collectively these campaigns lasted nearly 20 years (c. 89–65 B.C.). In the west, it took Julius Caesar and his legions eight years to subdue Gaul (58–51 B.C.).

Obtaining and maintaining the loyalty of proven veterans, such as Caesar's legionnaires, upon their return to Rome was one of the primary political concerns of the leaders of the Roman republic, and the issue proved to be a persistent one during the republic's decline and the establishment of the empire. The veterans, brutalized by the rigors of slaughtering their fellow men in face-to-face combat, often returned with few economic prospects beyond the legion. The frequent realization that their colleagues in Rome had prospered while they themselves had sacrificed their youth for the glorification of Rome left them embittered and susceptible to demagoguery. Their predicament was captured poignantly in the lamentations of Shakespeare's Titus Andronicus. The republic would pay for its neglect of this issue.

In 123 B.C., the tribune Gaius Gracchus proposed, among other reforms, to found trading colonies at Capua, Carthage, and Tarentum to provide sinecures for veterans of recent campaigns. Perhaps not coincidentally, those outposts were far enough from Rome itself that the veterans who accepted would find it hard to play any active role in Roman politics. It was perhaps even less surprising that Gracchus's enemies, who no doubt would have been all too eager to employ those veterans against the tribune, made much of that fact, and, after considerable civil unrest surrounding the proposal, Gracchus and many of his supporters were slain. The significance of this action was not lost on subsequent Roman leaders. A generation later, after defeating the Teutons and the Cimbri (102–101 B.C.), the general and consul Gaius Marius (uncle of Julius Caesar) oversaw legislation granting

estates to his loyal veterans. These estates were initially in Africa and later Gaul. The distance from Rome of these land grants is again noteworthy. After the Gallic estates were awarded to the soldiers, Marius's veterans were appeased and did not succumb to the temptations that plagued Gracchus's enemies. Despite the example set by the mollification of Marius's troops, the republic subsequently underwent sixty years of turmoil, among which the Catiline Conspiracy (63–62 B.C.) proved particularly edifying. Its collapse led to the formation of the First Triumvirate, a great nail in the republic's coffin.

While the events leading to the republic's eventual death defy concise description, the turmoil ultimately resulted in the establishment of the empire under Augustus (formerly Gaius Octavius). Being both a successful soldier and a savvy politician, Augustus recognized that the ad hoc nature of military pensions had been a source of some contention during the last stages of the republic, and he wisely sought to end the mischief associated with the granting of military pensions on a case-by-case basis. He did so by simultaneously creating a pension system and by funding it through the munificence of the state. Together, these reforms ensured that warriors had a vested interest in the perpetuation of the system and the state that funded it. This objective was shrewdly recognized and succinctly explained nearly two thousand years ago by Suetonius in his *Lives of the Twelve Caesars*:

Moreover, all the soldiers that were in any place whatsoever, [Augustus] tied to a certain prescript form and proportion of wages and rewards, setting down according to the degree and place of every one, both their times of warfare, and also the commodities they should receive after the term of their service expired and their lawful discharge: lest that by occasion of old age or for want they should, after they were freed from warfare, be solicited to sedition and rebellion. (Suetonius Tranquillus, trans. 1965)

So in 13 B.C. Augustus created a pension plan in which veteran legionnaires were to receive a pension upon the completion of 16 years in a legion and four years in the military reserves. This was a true retirement plan, designed to reward and mollify veterans returning from Rome's frontier campaigns. The original Augustan pension suffered from the fact that it was paid from general revenues (and Augustus's own generous contributions), and in A.D. 5 (A.D. 6 according to some sources), Augustus established a special fund (*aeririum militare*) from which retiring soldiers were paid. Although the length of service was also increased from 16 years on active duty to 20 and five years in the reserves, the pension system was explicitly funded through a 5 percent tax on inheritances and a one percent tax on all transactions conducted through auctions. Retiring legionnaires were to receive 3,000 denarii in a lump sum and centurions received considerably larger stipends. can be gauged in several ways. For example, a single denarius equaled roughly a day's wage for a laborer during the first century A.D.; so at an 8 percent discount rate, the pension would have yielded roughly 75 percent of a laborer's annual earnings. Another way to look at the pension would be in terms of purchasing power. The Book of Matthew states that Judas betrayed Jesus for 30 pieces of silver—symbolically, the price of slave. If these coins were shekels, as some scholars suspect, then that would have equaled 15 ounces of silver or roughly the price of a slave; hence a legionnaire's annual pension (30 ounces of silver) would have yielded an annual income roughly equal to 200 percent of the price of a slave.

Despite the improvements to the administration of the empire that the pension system offered, the Caesars still hedged their bets in many cases by supplementing these pensions with land grants, often far from Rome, and other emoluments (Crook 1996). Gibbon noted the importance of the Augustan pension reform in its totality. Remarking on both the monetary and in-kind retirement benefits, he claimed that "after the legions were rendered permanent by the emperors, the provinces were peopled by a race of soldiers; and the veterans, whether they received the reward of their service in land or in money, usually settled with their families in the country, where they had honourably spent their youth" (Gibbon 1776, 1: chap. 11). Although the empire faced much turmoil after the reign of Augustus, the troubles associated with the military pensions during the late republic were largely absent from the Pax Romana. Most importantly for the purposes of this study, the Roman pension system established by Augustus illustrates the use of a dedicated tax stream to support an ongoing pension system. The experience of the system also offers an example of how a government adjusted the terms of its pension plan to fit changing economic and political circumstances.

Pensions in the Age of Feudalism

In the centuries after Rome's decline in the West the nature of military service became organized around the feudal system that emerged among the kingdoms and fiefdoms founded on Rome's remains. Feudalism was not conducive to a formal pension system of the type instituted by Augustus, which has reemerged in modern times; the military pension system established in Rome ultimately collapsed with the empire, and the system was superseded by another form of compensation. In its simplest and idealized

form, the medieval military system consisted of a hierarchy in which a member of the nobility owed personal allegiance to a more powerful ruler or liege. Power in this context was nominally political and often ecclesiastical, but in practice it was military power that mattered. This allegiance was primarily manifested in the readiness to supply manpower, in the form of the noble and his vassals, when the noble's liege went to war. In return, the noble was exempt from more plebeian forms of taxation and typically was entitled to rule, though not necessarily *own* in the sense the word is used today, a *feud*. A feud was literally a landed estate held in trust on the condition of the provision of the aforementioned military service.

The rents from this feud, any villeinage or labor dues associated with it, and certain monopoly privileges concerning the regulation of trade, the administration of justice, coining of money, and so forth accrued to the ruling noble. Thus in the Middle Ages, the acquisition of a feud provided, at least in theory, a lifetime income in the form of the stream of payments the ruler could extract from his monopoly priviliges. Particularly worthy knights might aspire to receive more prosperous feuds and/or lofty titles should their liege be successful in conquest, but the greater concern was the loss of the feud in the case of failure. Thus, from an economic perspective, the medieval feud was analogous to a life annuity, the control of which was based on loyal, if not successful, military service. In essence the flow of income from this annuity was derived entirely from the privilege of ruling a geographical territory. Although the territory might contain certain commercial activities, such as a flour mill or cider press, the annuity itself was derived from the land, and so perpetuated the association between aristocracy and land tenure.

In such an economic and political system, retirement, as we know it today, accompanied by a formal pension would have made little sense. The system was perpetuated by the very absence of the well-defined political units with large tax bases that marked Rome before the feudal age and the nation state after it. Each ruler extracted his own income stream from the territory he ruled. If in old age he should decide to reduce his administrative and military burdens, then he could do so, but he always ran the risk of being replaced by a rival. The expansion of the tax base made possible by the reemergence of large-scale trading networks after the eleventh century accompanied by scale economies in conquest and administration led to the eventual reconsolidation of the medieval fiefs into larger political units, and ultimately, the system was supplanted altogether by a more efficient organization—the nation state.

National Military Pensions

Feudalism proved to be an inferior form of economic and political organization, and it was unable to compete with the national states that were

eventually formed throughout Europe. The establishment of the nation state led to the reemergence of standing armies. Like the Roman legions, these armies owed their allegiance to a state rather than to a person. The establishment of standardized systems of military pensions followed very shortly thereafter, beginning as early as the sixteenth century in England. During its 1592–93 session, Parliament established "reliefe for Souldiours [who] adventured their lives and lost their limbs or disabled their bodies" in the service of the Crown. Annual pensions were not to exceed 10 pounds (roughly 50 gold dollars at subsequent exchange rates) for "private soldiers" or 20 pounds for a "lieutenant." Initially, funds to support pension payments to the English military were raised from taxes levied on inhabitants of the locale from which the soldier was impressed or in which he was born. Over the course of the seventeenth century, pensions increasingly were paid from general revenues of the national government.

The Glorious Revolution (1689), which in matters of public finance established the primacy of Parliament relative to the crown, fundamentally altered the administration of the English, and subsequently British, army. Among other things, it explicitly made the financing of the army a prerogative of Parliament, and among the specific reforms that followed was the establishment in 1692 of a soldiers' home, Chelsea Hospital, for disabled noncommissioned officers and men. The facility did not generally accommodate all the eligible soldiers, and in the eighteenth century Parliament authorized stipends, essentially pensions, in lieu of residence at the hospital. The term "hospital" is slightly misleading. Prior to the establishment of the germ theory of disease in the nineteenth century, hospitals were little more than homes for the sick, elderly, disabled, and dying. In practice, Chelsea was just a retirement home for old soldiers. Chelsea's expenditures were financed through mandatory deductions from soldiers' pay and supplemented, when necessary, from the general funds of the Exchequer.

Shortly after Chelsea was founded, a similar "hospital" was established for disabled seamen. Supposedly, Queen Mary, touched by the pathetic state of some injured seamen she encountered, directed that something be done for them and their colleagues. In 1694 she and her husband, formerly William of Orange, now King William, granted for a seamen's hospital a palace under construction at Greenwich and the surrounding grounds. The famous architect, Christopher Wren, supplied the plans gratis. In addition to the property, the royal family dedicated £2,000 per annum for the hospital's upkeep. Seamen were also taxed 6 pence per month. These monies proved inadequate, and in 1707 they were supplemented with all forfeited and unclaimed prize monies and a percentage of all other prize monies (Clowes 1898).

The reform of the British pension system following the Glorious Revolution coincided with King William's War. This military action might be more informatively entitled "King William's War Fought with Parliament's Money." Henceforth, English military actions may have employed

His Majesty's officers, but the soldiers were paid with the taxes of His Majesty's subjects—taxes that had to be approved and allocated by Parliament. Even as Parliament undertook control of the financing of military affairs, it began to formalize military pensions. Officers who were retired for old age or infirmity or who were otherwise disbanded were taken off activity duty and granted half-pay for life, while, nominally at least, remaining subject to recall at any time. It is interesting to note that the most prominent private corporation in Britain, the East India Company, adopted the same pension plan for its soldiers (Philips 1961). Like the current Federal Reserve system in the United States and other federally chartered corporations, the East India Company was a private corporation with public responsibilities. While it was first and foremost chartered as a limited liability trading company, to discharge the terms of its charter it subsequently became associated with a set of other activities designed to facilitate trade. For example, it essentially served as the military, police, and customs service for the British states in India.

A similar plan was created for the British naval personnel. Inactive or retired officers received half-pay as long as they refrained from accepting other public sector employment. It should be noted that, at least with respect to the navy, half-pay did not necessarily mean exactly 50 percent of an officer's salary. There were often arcane adjustments that made the actual pension payment roughly half-pay. A description of compensation, including pensions, in the eighteenth-century Royal Navy can be found in Pope (1981). Often this official pension was supplemented with extraordinary payments, and in some cases these were enormous. The Lords St. Vincent, Duncan, and Nelson each received £3,000 (roughly \$15,000) a year. This was an enormous sum for the time, but these very generous pensions to popular military heroes were clearly exceptions to the general pension policy of the day. Warrant officers (e.g., boatswains, carpenters, and gunners) had to serve 15 years in the service to qualify for a pension. Masters and surgeons had to have eight years at sea to qualify. These pensions for noncommissioned officers were not entitlements, and the individual had to be "incapable" of continuing in the service, as determined by naval physicians, before receiving payments. In other words, these were essentially retirement pensions, though one had to be certified as infirm. As for disability pensions, an officer who was disabled in action received a bounty of one year's pay and medical expenses, as did his widow or mother, should she be widowed, in case his wounds resulted in death. Noncommissioned officers and seamen disabled in action received a stipend from the navy's "Chatham Chest." The Chest was a contributory pension plan that was funded by deductions from the seamen's pay and to which, officially, the Admiralty gave nothing.

The adoption of the British officer's pensions of the eighteenth century illustrated two aspects of pension plans as part of an organization's human

resource policy. The first objective was the desire to provide adequate income for those unable to continue in the service. The second objective was obtained when the pension was tied to a policy of mandatory retirement. In this case, the pension plan provided a useful method of forcing unwanted or unneeded older persons from the labor force. The eighteenthcentury British pension plan required senior officers to leave rather lucrative positions in exchange for receiving the pension. In some instances, the pension served as a reward to those who were inclined to leave the service, but in other instances the British government used the pension in conjunction with mandatory retirement to force military personnel to leave active duty. This did not always sit well with the officers, who preferred to remain on the job at full pay or, as some might say, retire on the job at full pay. This relationship between pension coverage and forced retirement reappeared as part of pension systems from time to time over the next century and became particularly important in U.S. military pensions in the nineteenth century and private pension plans in the middle of the twentieth century.

Of course the half-pay system did not always sit well with the public either. Since, seniority aside, the least effective officers would be the ones most likely to be pensioned, one could view the pension as a textbook case of moral hazard. Samuel Johnson certainly did. He described a public sector pension as "generally understood to mean pay given to a state-hireling for treason to his country" (quoted in Higgs 1926, 88–89). Apparently, Parliament considered half-pay for treason better than full pay.

Britain's colonies in America also created pensions for members of their colonial militia. As early as 1624, the general assembly of the Virginia Company enacted laws providing for disability payments to individuals hurt in the service of the colony; however, this act did not receive the necessary ratification of the parent company in England. The first formal pension plan in America was established in 1636 by the Plymouth Colony. The general assembly of the Virginia Company followed by approving a resolution in October 1644:

Whereas in the late expeditions against the Indians, diverse men were hurt and maymed and disabled from provideing for their necessary maintenance and subsistance, Be it therefore enacted by the authority of this present Grand Assembly, That all hurt or maymed men be releived and provided for by the severall counties, where such men reside or inhabit. (Glasson 1918)

Other early plans were adopted by the Massachusetts Bay Colony and Maryland in the 1670s and New York in the 1690s. Generally, colonial soldiers were entitled to a disability payment if "hurt or maymed" as a result of their service. Typically, the colony disbursed the funds, but collected them from the county in which the soldier was born, enlisted, or resided. Although the colonies also provided benefits for the widows and orphans of slain soldiers, both those payments and the disability pensions were usually

based on need and were proportional to the extent of disability. As noted below, some of the colonial pension payments survived independence, the Revolution, and the creation of a new nation, the United States.

The English and their American colonies were not alone among the Great Powers in providing pensions for their soldiers during the early modern era. Despite the conflict with the officer corps over mandatory retirement, the British pension polices were quite liberal relative to their continental neighbors and military competitors. Spain also maintained pensions for its imperial forces. Both the Spanish and Austrian Habsburgs could be quite generous in their grants to favored warriors and conquerors. Until the seventeenth century, these rewards often followed the form of the medieval land grant. Even when cash or other forms of remuneration were granted, these benefits were still awarded on a case-by-case basis. To a certain extent, arbitrary retirement rewards still existed in the eighteenth century. Among the most striking examples of Habsburg beneficence was the pension granted by Emperor Charles VI to the great field marshal Prince Eugene of Savoy.³ Upon Eugene's retirement in 1724, Charles granted the prince an annual pension of 140,000 gulden (50,000 gold dollars) and a hunting estate at Siebenbrunn in Lower Austria estimated to be worth twice that amount (McKay 1977). Also under the Habsburgs, the Spanish crown began systematically financing military pensions from its own, as opposed to state, revenues beginning in 1613. It took nearly another 150 years, however, before the Spanish pension system was formalized as an obligation of the state in 1761 during the reign of Carlos III. One of the more enlightened rulers of the day, Carlos was by most accounts an able administrator and effective reformer. A scion of the Spanish House of Bourbon, Carlos had begun similar reforms decades earlier when he ruled Naples and Sicily as Charles IV (Chandler 1991).

Yet another rising European military power began offering a pension plan in the eighteenth-century. Prior to the Seven Years War, Prussia's Frederick the Great, like his father, Frederick William, before him, offered state pensions on an *ad hoc* basis. Perhaps reflecting Dr. Johnson's sentiments, these pensions were not always welcomed by their recipients. There is a famous story, repeated by Frederick's biographer, that while accompanying the army on an exhausting march to Kolin during the summer of 1757, a crucial time in the Seven Years War, Frederick came upon an aged non-commissioned officer and engaged the old warrior in the following exchange (Asprey 1986, 128).

Frederick: "What's wrong?"

Soldier: "The march is too much for me." Frederick: "How long have you served?"

Soldier: "Forty-five years, beginning under the King, your father." Frederick: "Right! If we get into winter quarters I'll pension you." Soldier: "The worst disgrace possible. I'll live and die a soldier."

Prussian veterans who were not disabled were not automatically entitled to a pension but were offered special consideration for jobs in the civil service or as school teachers. Officers below the rank of general were eligible for both retirement and disability pensions, though these were not generous by British standards, generally being only a few thalers (\$2.00 to \$3.00) a month. Still, Frederick was quite generous with his generals, who received 100 or more thalers a month in addition to estates, senior civil service appointments, and crown lands. It is worth emphasizing that the Prussian military pension was not an entitlement in the sense that the British and Spanish pensions were, and veterans of regiments that had less than stellar reputations could, and often did, receive nothing (Asprey 1986). It was only in subsequent decades that the Prussian pensions became a *system* on the British model.

The early modern French pension system was in some ways the least progressive of those offered by the Great Powers. Prior to the French Revolution, under the ancien régime, the Bourbons, like their Habsburg colleagues, were often generous to favorites. However, for those state employees who did not win the king's favor, the ministers who headed the French departments of state had complete autonomy when it came to matters of compensation for those serving in their ministries. Hence, to obtain a state pension, one had to be a loyal and valuable ministerial employee and, perhaps more important, remain in the current minister's favor at the time of retirement. After the revolution, the Assembly abolished this practice in 1791 and began to regulate state pensions. However, the financial and political turmoil that the French state experienced over the subsequent decade imposed a great deal of uncertainty on any financial commitment made by the various regimes that controlled Paris (Brown 1995). This was particularly true with respect to disability and widow pensions, which, in any case, were only passed into law in 1793 (Bertaud 1988).

With the restoration of the monarchy, many officers were retired; however, the court managed to honor in one form or another the service of Napoleonic veterans. Still, during this period, the French military pension system was woeful compared with those of the other Great Powers. For

example by the 1820s, a Prussian captain earned twice as much as a French captain on active duty, and depending on his regiment, a British captain might earn three times that of his French counterpart. These differences were magnified by the "replacement rates" offered by their pensions. As noted, British officers received half-pay, or roughly half-pay, anyway; Prussian field-grade officers would expect to receive roughly 40 percent of their base pay in retirement, but a French officer would only receive an annuity of about 25 percent of his much lower pay (Porch 1974). As a result, given his higher salary and higher pension rate, a British officer might reasonably expect a pension that was five or six times larger than his French counterpart.

Despite the wide variation in the level of pension benefits paid to military personnel of the early modern Great Powers, this brief review demonstrates that by the early nineteenth century all the Powers had created some type of formal pension system for their military forces. Of course, the reforms in the Great Power military pensions were only a small part of the broader changes associated with the rise of the nation state. By definition, the state maintains a comparative advantage in violence, and as Augustus recognized two millennia ago, the perpetuation of this advantage was closely tied to the economics of military compensation, an important component of which was the pension. Given these precedents, particularly those of the British, it follows that the founders of the United States adopted a system of military pensions before a United States had even been formally created. Before turning to that history, it will be useful to review some fundamental differences between army and navy compensation, because the nature of subsequent pension plans reflected these differences.

Comparing Army and Navy Pension Plans

One of the most striking characteristics of the history of military pensions in the United States is the difference between the early plans offered by the army and those offered by the navy. In fact, coverage requirements and benefit formulas were not substantially different. What was radically different between the two plans was the way in which the plans were funded. The army pension plan was a pay-as-you-go pension system based on revenues from the general fund of the federal government; while the navy plan was funded by the prizes captured by naval personnel. This difference in funding is largely explained by the inherent difference imbedded in the economic incentives and contracts between army and naval compensation.

Dating back at least a millennium, the compensation of Western naval forces was typically secured from shares of the plunder they captured. Interestingly, pirates, privateers (essentially licensed pirates), and regular naval forces all adopted some variation of this compensation system. Although the term privateer did not enter the lexicon until the seventeenth

century, the practice, at least in the West, dates from 1070, when the king of Denmark sold licenses sanctioning commerce raiding (Roesdahl 1998). This contract between sovereign and licensee offered something to both parties. The king, exercising his privilege-granting monopoly enforced by a comparative advantage in violence, received revenue (North 1981), while, in return, the privateer essentially obtained a license to commit piracy. The privateers and their crews, like pirates, were compensated in kind or through the liquidation of their prizes. This form of compensation for naval personnel survived the rise of the nation state and, indeed, in the United States lasted through the American Civil War.

It would take several centuries after the Viking raids before the practice of privateering was formally legitimized by modern nation states. English monarchs, including King John in 1205 and Edward III in 1340, formally sanctioned the awarding of prize money to privateers, but the golden age of privateering began under the Tudors (Oliver 1946). The use of government-sanctioned privateers accelerated in the spring of 1585, when the Spanish government authorized the confiscation of a number of English ships docked in Spanish harbors. The goods onboard were confiscated and the ships' crews were imprisoned. Not surprisingly, English merchants sought relief from their government, and in July 1585 the government authorized the lord high admiral, Charles Howard, Baron of Effingham, to issue letters of reprisal to merchants who had been harmed by Spain's seizure of their wares.⁵ These actions marked the beginning of the privateer as a primary instrument of naval warfare, and the history of privateering weighed heavily on the subsequent history of military pensions.

The process of appeal and issuance of the letter of reprisal was formally conducted through the High Court of Admiralty. Because he exercised control of the appointments to the court, the lord admiral maintained effective control of the process, and with good reason, since he alone ultimately answered to the crown for all matters pertaining to prizes. It is important to note that this particular aspect of the dispute between England and Spain, a dispute of such economic, political, and religious complexity that it defies concise description, was addressed in prize courts rather than through more formal military means. This is because at the time England and Spain were not formally at war. Queen Elizabeth did not want to initiate a war over what were in effect narrowly commercial issues, and she hesitated to respond by sending ships of the line to Iberia or invading Spanish possessions with costly land forces. But for domestic political reasons she could not easily do nothing. Thus, the letter of reprisal became, de facto, an instrument of the undeclared war.

The letter of reprisal granted its holder the right to collect in kind, and by force if necessary, the value of goods confiscated by those not otherwise subject to the purview and restraints of domestic law enforcement. In practice, those who confiscated the goods were typically the agents of a foreign

government. In contrast, those from whom relief was sought on the high seas were merely merchantmen flying the flag of that government. In any case, the letter of reprisal was a document that temporarily conferred on the plaintiff the coercive powers of the state in order to settle what was nominally a disagreement between private parties. However, nothing in the letter prohibited its holder from combining or contracting with a third party, and indeed the aggrieved merchants almost immediately did so. Compelled by the logic of comparative advantage, they contracted with parties experienced in using force on the high seas. Often these agents were little more than pirates. Thus, the letter of reprisal essentially legalized piracy so long as it was directed at the ships flying the flag of the state that initiated aggression.

The ships that were captured under a letter of reprisal were prizes. Hence, they were subject to customs duties and an additional 10 percent assessment, which funded the admiralty courts from which the letters were issued and in which the prizes were adjudicated. In addition, the admiralty courts eventually charged fees for the issuance of letters of reprisal. All this meant that the government in general and the admiralty in particular had a direct financial interest in expanding the supply of licenses for privateering. Nominally, the letter of reprisal was issued to a specific individual to rectify a specific wrong. In practice, however, the financial interests of both the crown and the admiralty as well as military expediency led to an expansion of privateering. The privateers often dispensed with the aforementioned formalities and simply relied on the good will of the authorities when prizes were brought to port.

Ultimately, these practices were formalized in the letter of marque (literally, seizure by warrant), which was a more general warrant for commerce raiding. The letter of marque represented the culmination of roughly six centuries of evolution of Western law and the rise of the nation-state. Indeed, just as the Danish king had exercised his royal prerogatives in the eleventh century, Article I, Section 8 of the U.S. Constitution explicitly reserves for Congress the right to "grant Letters of Marque and Reprisal."

Privateering proved to be a fairly resilient institution. It survived until it was banned by all the Great Powers, except the United States and Spain, in the Declaration of Paris of 1856. The last state of any note actively to engage in the practice was the Confederate States of America. For the purposes of this discussion, the key features of the system of privateering were the share arrangement by which the crews were compensated and the fact that privateers were essentially free agents. The share system is interesting because it is an arrangement that the U.S. navy ultimately adopted to fund its pension plan. As free agents, the privateers were not subject to the normal forms of military command and control under which regular naval forces operated. Both characteristics were based on the inability of naval leaders effectively to monitor the daily activities of ships at sea, and these principles are

closely related to the structure of military pensions in general and the navy pension plan in particular.

An analysis of alternative market or decision-making systems helps explain why governments ultimately adopted prize shares as the system of compensation for naval personnel. To see the importance of the share system, compare the advantages of a pure market system in which all contracts are between atomistic (free) agents with a system in which at least some of decision making is centralized in an organization—such as a militray organization. In the context of military activities, in general, and those of the navy in particular, the objectives of the state would be difficult to achieve using a pure market system based on individual contracts. Although naval operations are by definition an activity of the state, naval objectives conceivably could be carried out through a market system by subcontractors rather than by military personnel. Indeed, privateers and their land war equivalents, mercenaries, have long histories of being used by rulers to support their objectives, and privateers fulfilled just such a role for many governments until the mid-nineteenth century. However, during the early modern era, privateers and mercenaries were gradually being replaced by the uniformed forces of modern nation-states. To see why this transition occurred, consider that one problem with relying on private contracting for national defense is that in certain instances the cost of enforcing such contracts can be prohibitive. Throughout history, governments that trusted their defenses to mercenaries often found themselves renegotiating their contracts at crucial points, frequently when the enemy was at the gates. In fact, this situation precipitated one of the most momentous events in Western history, the sack of Rome in A.D. 410 by an army of Gothic mercenaries led by Alaric.

Contrary to popular perceptions, the Goths were not invaders from beyond the imperial frontier. Instead, they were hirelings charged with defending that frontier. Alaric, a devout Christian and formerly a loyal Roman general, marched on Rome because he felt that he and his troops were undercompensated for their frequent, loyal, and effective service to the empire (Norwich 1988). The problem the Romans faced in the fifth century is a fundamental characteristic of contracts between states and private military forces. Those being protected must somehow force those who have ostensibly agreed to provide the protection to post some type of bond that would be forfeit on failure to honor the terms of the protection contract.

However, monitoring the terms of such a contract was costly and collecting the bond in the case of nonfeasance, or worse, could be prohibitive. Consider the situation in which mercenaries, such as Alaric, or privateers refused to honor their contracts. Mercenary forces in the field or privateers at sea might systematically shirk their responsibility by avoiding conflict, but they could still demand pay for services rendered. Who was to force them to honor the contract? The army? Any state that possessed an army

whose threat was credible in this situation would not have to rely on mercenaries in the first place.

This was exactly the situation Rome faced in the fifth century. Thus every state faced a situation in which there was some optimal mix of mercenary and "regular" forces, but, as the Romans learned, in a pinch that mix must be such that the regulars could impose their will on the irregulars.

Such situations were not quite so acute with naval forces. For one thing, there were few states of any significance that could be conquered solely by a naval force. Privateers were in fact occasionally required to post bonds to guard against misfeasance and malfeasance. During the American Revolution, the Continental Congress required bonds of from \$5,000 to \$10,000 for its privateers (Paullin 1906). In addition, the fundamental problem was partly alleviated in privateering by awarding compensation based on performance; this was in the form of "share contracts." Of course compensating seamen with a share of the wealth they captured was essentially the same practice used by pirates since time immemorial. This share contract policy with privateers provided the crew and officers a portion of all prizes that were seized and successfully liquidated through prize courts. The tradition of sharing prizes with officers and crews of ships of war survived the creation of modern navies. As noted, letters of marque and reprisal gave privateers the right to arm private vessels and interdict ships of war or merchantmen of belligerent states or neutral merchantmen hauling contraband.

While some countries, including the United States and Great Britain, maintained prize systems for their land forces; these were typically even more cumbersome and inefficient than the naval system (Longford 1969, 67). Because of these shortcomings, the share of army compensation derived from the prize system was miniscule compared to that of the navy (Oliver 1946). A similar, though not quite as formal contract was structured for mercenaries. Dating from antiquity, it was customary in both Western and Islamic civilizations that any town or city that unsuccessfully resisted a siege was subjected to three days of pillage and rape (Norwich 1988, 1996).

The privilege of sacking a town was denied occasionally in hopes of maintaining military order among the troops, but woe to the general who consistently tried to prevent his forces from what they perceived as the just fruits of their labors. During this period, conscripts were often permitted to supplement their pay through looting and plundering conquered regions. Napoleon, addressing the Army of Italy, stated, "Soldiers! You are hungry and naked. The Government owes us much but can give us nothing . . . I will lead you into the most fertile plains on earth. Rich provinces, wealthy all will be yours for the taking." He went on to promise his troops full rations, loot, and glory. At this time the regular pay for French army personnel was hardly sufficient to keep one alive, and the spoils stolen after a victory were used to supplement regular compensation (Schom 1997, 42). Thus, the right to seize goods from conquered cities was used as

a performance bonus and the lure of loot was used to provide the army with an incentive to fight and win, just as a share of the prize induced seamen to board and seize enemy ships.

While regular troops resorted to looting for their compensation, mercenary troops were paid a premium to secure certain military objectives and maintain some semblance of order. An example of this was the British sack of Seringapatam in 1799. A young colonel, Arthur Wellesley, the future duke of Wellington, led a force of Swiss, German, and Indian mercenaries to protect the palace of Tippoo, the residence of the sultan of Mysore, from the rampaging British troops. Supposedly, the British commanders were intent on protecting the palace so that the officers could systematically loot it after the city was secured. Wellesley alone netted £4,000 (\$20,000) from Seringapatam (Longford 1969, 67). Although land forces have continued to supplement their earnings by pillaging, the sack as a formal means of compensation was generally abandoned by Western powers with the rise of the nation-state and the establishment of professional armies.⁶

Given this history of rewarding soldiers and seamen with the spoils of victory, it is worth asking, with respect to their pension plans, why modern navies adopted a form of compensation associated with privateers while armies came to rely exclusively on tax revenues to compensate their troops. The answer lies in the different costs of monitoring the performances of the two groups. An army unit, mercenary or otherwise, typically works in close association with other army units and its effectiveness is relatively easy to monitor. For example, positions on the battlefield are either taken or successfully defended or they are not. In either case, although the circumstances might be multifarious, the outcome is fairly unambiguous.

In the age of sail, however, relatively small naval units, often a single ship, typically worked in isolation, often for long periods, having little contact or communication with either other units at sea or the admiralty. As a consequence, directly monitoring their performance could be quite costly, even if it were possible. Indeed, among the primary tasks of navies in the age of sail were blockade enforcement and commerce raiding. These activities required attacking merchantmen of belligerent states and neutrals carrying contraband. Both actions could be hazardous and either could be avoided quite easily. If a ship's company went to sea with none of its compensation tied to performance, it would have been relatively easy to shirk these primary duties. Guaranteeing that the crew received some portion of the prizes they captured provided clear performance incentives. Every blockaderunner not overtaken was compensation forgone by the ship's crew.

The discussion of the share component in navy compensation suggests that it was generally successful in making the navy more efficient. Efficiency in this context means more output for a particular quantity of inputs, such as ships and men. However, a more efficient contract doesn't necessarily mean an optimal contract. There might still be room for improvement,

because it is possible that the share component induced seamen to spend too much time pursuing prizes and too little time engaging the enemy's ships of the line. Napoleon certainly thought this was the case. He constantly complained that, while his navy was all too happy to attack commercial vessels, when it came to ships of war,

the admirals see double and picked up the notion, I know not where, that one can make war without taking risks. . . . Time and again, at the Conseil d'Etat, I would reproach them with taking unfair advantage of that circumstance. According to them, one has to be born in the navy to understand anything about it. (Herold 1955)

There were of course ways of altering the contract to encourage the pursuit of ships of war rather than those of commerce. Both the British and U.S. navies paid what was variously called "head" or "gun" money for the capture of men and guns aboard a ship of the line. The importance of these additional incentives was well recognized by policymakers. In the famous case of the U.S.S. *Constitution*, Congress awarded the officers and crew \$50,000 for their victory over H.M.S. *Guerrière* in 1812 (Miller 1997, 65–66). The British ship was damaged beyond repair and was set afire at sea. In the absence of prize money, the payment provided an incentive for other naval captains. In addition to shirking by raiding commercial shipping rather than engaging the enemy, there was also the moral hazard associated with capturing questionable prizes. The naval authorities recognized this possibility, hence privateers were typically required to post a bond before receiving their letter of marque.

The actual compensation from capturing prizes depended on a number of variables. Liquidating prizes was a byzantine process by any standard. The actual amount that ultimately was paid to seaman depended on the type of prize, the laws of his country pertaining to prizes in general, and a seaman's share. In particular, the value of a share was affected by the interpretation of national laws as well as the "law of the sea" in the prize court to which the prizes were taken. The venality of the prize agents and the relationship between the prize courts and any courts of appeal that might ultimately overturn the prize courts' decisions also played a significant role in the ultimate determination of prize money.⁷ Still, the prize was a fundamental component of naval compensation into the twentieth century, and it funded navy pensions in the United States from the outset.

Concluding Observations

For centuries, nations have used military pensions to reward soldiers and seamen for long and faithful service, to provide them with performance incentives, and to keep them from forming coalitions to overthrow the government. This chapter has shown how retirement plans evolved from Roman times, through the feudal era, and into the modern national states

of Europe. The American colonies and then the new republic of the United States provided disability and retirement pensions to militia, soldiers, seamen, and privateers. These plans were precursors of the more formal national pensions established for the army and navy around 1800. The long history of military pensions is a reminder that employer pensions are not a new form of compensation. The evolution of military pensions in Western Europe provides an interesting framework for beginning an analysis of the development of public pensions in the United States. The formation of the U.S. navy pension and its unique experiences in the nineteenth century is the initial focus of this examination.

This history of the early pension plans of western civilization illustrates how they often depended on obtaining and retaining the favor of Caesar or his subsequent counterpart. Such favor might depend on performance on the job and continued loyalty in retirement. The concept of vesting was generally unknown. Some of these plans began as disability plans and gradually became retirement plans as old age and inability to perform one's duties emerged as a form of disability.

Prior to 1800, pension plans were typically financed by general revenues of the state or the king's own purse. Dedicated funding sources were rarely used, and there were few examples of funds being established to provide an ongoing source of monies. The generosity of pension plans varied greatly over time, across countries, and for workers of different ranks within a country. Special plans for those of high rank provided a high level of retirement income, while most plans for the rank and file provided only a meager standard of existence. Interestingly, many of these pension plans specified the retirement benefit as a percent of pay similar to contemporary plans. Today, highly compensated executives often are covered by special, nonqualified retirement plans

Despite these differences, it seems clear that pre-1800 government leaders understood the importance of pension plans as a component of their human resource management policies. These early plans were structured to attract, retain, and motivate employees. They were used in conjunction with mandatory retirement policies to induce or require workers to retire without forcing older persons into destitution. This history also indicates that military pensions have been a significant employee benefit for centuries. While the funding and vesting standards used to finance these pensions were primitive, the pre-1800 military pensions were important precursors of nineteenth-century military plans in the United States, and we now turn to that history.

Notes

1. A concise, though controversial, economic interpretation of feudalism can be found in North (1981).

- 2. Some of the material on early English and Colonial pensions is based on the primary sources and references in an unpublished manuscript of the Congressional Research Service made available to us by Robert Goldich.
- 3. Charles VI was the last Habsburg ruler of Spain. (In that capacity, he was referred to, somewhat confusingly, as Carlos III.) The Spanish Crown passed from the House of Habsburg to that of Bourbon with the Treaty of Utrecht (1713), which ended the War of the Spanish Succession.
- 4. The authors thank Professor Thomas Grennes for pointing out this important historical precedent.
- 5. For a summary of Elizabethan privateering, see Andrews (1964). For a more comprehensive, though eclectic, history of privateering, see the papers in Starkey, Heslinga, and de Moors (1997).
- 6. The end of the sack as a means of compensating ground troops was not the result of humanitarian considerations; rather it was linked to the development of the cannon. Artillery made folly of hiding behind a town's medieval fortifications and fundamentally altered the course of land warfare (Keegan 1993).
- 7. For an example of how complicated that process could be in practice, see Pope (1981) and Paullin (1906).