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Managing inflation through thrift, not usury:
Superannuation, Keynesian wartime economics, and exploring the use of mandatory saving as a
potential counterinflationary monetary policy mechanism by central banks

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Abstract

The rise of modern monetary theory (MMT) has sparked debate among economists concerning whether governments empowered by money-financed fiscal policy can be relied upon to manage inflation and public finances responsibly given political pressures. While MMT economists stress MMT simply illustrates the fact all expenditure by currency issuers is already money-financed rather than proposing some new ‘money printing policy’, and the price-stabilising functions of the Employment Buffer Stock or Job Guarantee proposal (Employer of Last Resort), and the importance of maximising automatic stabilisers and reducing reliance on discretionary fiscal policy, improvements to the policy functions and role of the semi-independent central bank have received relatively little attention, with MMT economists regarding conventional and unconventional monetary policy alike as largely impotent. This paper explores a new potential counterinflationary policy mechanism for central banks, based on Australia’s present compulsory superannuation—or retirement savings—system, and the literature on the use of savings and deferred consumption in wartime inflation management, particularly John Maynard Keynes’ *How to Pay for the War*. The paper finds that with discretionary fiscal tightening on both the revenue and expenditure sides politically difficult, and conventional monetary policy inefficient, ineffective and inequitable, empowering central banks with an adjustable mandatory savings rate could prove an effective and politically feasible potential complement to the automatic stabiliser and sector-specific inflation management approach favoured by MMT economists.

Keywords: Superannuation, monetary policy, monetary economics, monetary theory, Modern Monetary Theory, central banks, saving, inflation.

Introduction

Modern monetary theory (MMT) and Post-Keynesian economics present a number of deviations from mainstream macroeconomics on topics spanning money and banking, financial economics, international finance, fiscal operations and public finance, and monetary policy. The purpose of this paper is twofold: firstly, it presents an analysis of the Australian compulsory superannuation (retirement saving) system and its macroeconomic dimensions through the lens of Post-Keynesian and modern monetary theory, and argues the investment mandate of the superannuation (henceforth super) funds presents an important caveat to the general statement by classical Keynesian, Post-Keynesian and MMT economists that savings do not finance investment, noting that while this remains true in the case of bank lending, care must be taken against generalised statements on the link between saving and investment economy-wide, as, in the case of superannuation, saving does indeed finance investment. Secondly, the paper examines the macroeconomic and potential monetary policy implications of compulsory superannuation, exploring an original proposal to empower central banks with an adjustable compulsory savings policy mechanism for the purposes of curbing inflation through consumption deferral, drawing on insights from John Maynard Keynes' *How to Pay for the War* (1940), subsequent mobilisation economics literature by MMT scholars such as Levey (2020) and Nersisyan and Wray (2019), and the economics of the Australian superannuation system. It concludes by considering the political economy of inflation management in both fiscal and monetary policy, and situates this proposal in relation to a broader debate regarding the desirability of a potential independent fiscal authority (Gruen, N. 1997).

An Introduction to the Australian Superannuation System

The Australian retirement income system comprises three pillars: a publicly funded and means tested Age Pension; mandatory employer-funded contributions to pension funds known as the Superannuation Guarantee (SG) introduced in 1992; and additional individual voluntary contributions to those pension funds (henceforth “super funds”) supported by tax concessions and direct government support for low-income earners (MMGPI 2019). The Guarantee requires employers to pay a contribution calculated as a percentage of the relevant individual employee’s salary (and currently set at a legislated floor of 9.5 per cent) into the employee’s nominated fund or funds. The super contribution is (at least nominally) an additional payment on top of the employee’s pre-tax salary—so an employee on a before-tax salary of AUD 90,000 per annum, for example, would receive at minimum an annual contribution of AUD 8,550 per annum (or an additional payment of 9.5 per cent) into their nominated super fund, in addition to their AUD 90,000 p.a. before-tax salary. Although debate has raged in recent years around whether super contributions are ultimately paid at the expense of wages and wage growth with the final economic incidence falling upon labour rather than capital and employers (Stanford 2019, Coates, Cowgill and Mackey 2020), in nominal terms, the legal incidence of contributions falls upon capital and employers, not upon labour and wages. Employees are given a choice of fund, although many industries have a particular nonprofit, member-owned “industry super fund” nominated as the default fund (often in the negotiated contractual arrangement, known as the Enterprise Agreement, governing the terms and conditions of employment between employees and employers in a given firm or organisation¹), whose board is comprised of employee (usually

¹ Firms and other employers are not obligated to establish an Enterprise Agreement with their workforce, and where no Enterprise Agreement exists, employees’ wages and conditions are determined by a set of standard and default industry-specific wages and conditions known as Awards, set by Australia’s independent statutory industrial relations regulator, the Fair Work Commission.

trade union) and employer representatives. Employees and employers may negotiate a super contribution rate higher than the minimum 9.5 per cent Superannuation Guarantee through the enterprise bargaining (industrial negotiations) process, which is then set in the employer-employee industrial contract (Enterprise Agreement). In addition to the member-owned and partially union-run Industry Funds, there are also a number of Retail Funds, largely owned and operated by commercial banks. A member's accumulated superannuation fund balance may be accessed once the member reaches the "preservation age", currently set at 55 years old (Australian Tax Office 2020).²

Prior to the introduction of the compulsory Superannuation Guarantee in 1992, superannuation was a voluntary system generally limited to public sector employees and the white-collar employees of larger private sector firms, although National Wage Case guidelines from 1986 saw contributions beginning to be added to some industrial awards³ and by 1991, 68 per cent of private sector employees were already covered by superannuation (APRA 2019). The Superannuation Guarantee (initially 3 per cent, or 4 per cent for employers with an annual payroll above AUD 1 million) was introduced in 1992 making contributions mandatory for all employers in formal sectors of the economy after a determined campaign for universal coverage by the trade union movement in the 1980s (Mees and Brigden 2017: 1), and formed a key plank of the incomes policy negotiated between the Australian Council of Trade Unions (ACTU) and the Australian Labor Party (ALP) Federal Government of Bob Hawke and Paul Keating, the historic Prices and Incomes Accord ("the Accord"), particularly in subsequent renegotiations of the Accord beginning in 1985 (Neilson 2010: 3 – 5).

² Note the preservation age is 11 years earlier than the currently-legislated retirement age of 66.

³ See footnote 1.

Exogenous-Classical and Endogenous Keynesian, Post-Keynesian, and Modern Monetary Theories of Saving, Lending, Investment, Credit, Money, and Banking

Exogenous Saving, Lending, Investment, and Banking: the Orthodox Classical Model

The classical model of investment rests on the loanable funds framework, whereby money is assumed to historically emerge out of the inefficiencies of a barter economy—namely the double coincidence of wants (Smith 1776 [1999 reprint: 126 – 132])—and savings fund lending for investment, with banks acting as intermediaries between savers and lenders.

According to Say’s Law, supply creates its own demand, in that by supplying goods and services, producers signal a desire to exchange their output for other goods supplied in the market (Mitchell, Wray and Watts 2019: 172). Assuming a closed economy for simplicity, in equilibrium the flow of aggregate spending equals national income (Y), with total spending the sum of consumption (C) and investment (I) (which here means expenditure on productive capital and fixed assets such as equipment and machinery, not just financial assets), such that we get

$$Y = C + I \text{ (Mitchell, Wray and Watts 2019: 172).}$$

National income is thus either consumed (C) or saved (S), and thus:

$$Y = C + S.$$

Therefore in equilibrium when total income equals total spending, $C + I = C + S$, so the equilibrium condition is saving equals planned investment, all consumption goods are sold, and the remaining income is equal to investment. As Mitchell, Wray and Watts (2019: 172) note, under the Classical system, “withheld consumption in a given period is assumed to be matched by investment spending, given that saving is a signal that consumers want to consume in the future. Firms are thus assumed to invest in future productive capacity [machinery, equipment and so forth] to ensure they can meet the demand that results from postponed consumption.” If we

assume the economy is in equilibrium, if there is a rise in saving then consumption spending would fall and to maintain the equilibrium output level, investment would have to increase. Loanable funds theory claims that equilibrium is constantly achieved (barring government intervention) as production shifts between consumption and investment goods mediated by changes to interest rates, “which would always bring planned saving and planned investment when household and firms’ preferences change” (Mitchell, Wray and Watts 2019: 172). The interest rate constitutes a price ensuring that planned investment equals plans saving, with savers (lenders) entering the market to pursue returns on savings to enhance future consumption capacities while firms wanting to invest enter the market to pursue loans (Mitchell, Wray and Watts 2019: 173). Crucially, it is the composition of final expenditure and output that changes under the Classical model, not size of total expenditure. Lower (higher) saving is offset by higher (lower) consumption, and investment contracts (expands) accordingly (Mitchell, Wray and Watts 2019: 174). Saving merely shifts supply away from production of (immediate) consumption goods towards supply of productive capacity (machinery, equipment, etc) for goods for future consumption (investment). As Mitchell, Wray and Watts (2019: 191) characterise it, the Classical view is that saving is deferred consumption: “when one decides to save, one is actually ordering goods to be consumed tomorrow. This order for tomorrow’s goods is placed with firms that undertake investment so that they will have the productive capacity in place to produce those goods at some future period; hence there is no reduction of effective demand resulting from decisions to save.” Thus, as Mitchell, Wray and Watts (2019: 174) observe, “the entire real side of the economy is explained in the Classical system without reference to money. Real GDP, national income, employment, the real wage and the interest rate are all determined in the Classical system once we know the state of technology and the preferences of households between work and leisure, and consumption and saving.”

The Classical framework also assumes savings provide the supply of funds for investment. Under the Classical framework, savers deposit unconsumed income with banks, who in turn lend out those deposits to borrowers seeking financial capital to invest in productive assets at a profit. In addition, the Classical (and later Monetarist and New Classical) frameworks assume the money supply (specifically base, as well as broad, money) to be an exogenous stock under the control of the central bank, which the latter can manipulate to determine the nominal side of the economy, namely the price level and money wage level (Mitchell, Wray and Watts 2019: 176).

Endogenous Models: the Heterodox, Keynesian, Post-Keynesian, and Modern Monetary Theory View

Keynes (1936) rejected the Classical argument that household saving decisions are driven by preferences for current and future consumption intermediated by interest rates, instead arguing the total level of saving is a positive function of national income (Mitchell, Wray and Watts 2019: 188). Furthermore, “investment spending is a component of aggregate demand, which in turn, drives total national income in each period” and the Classical loanable funds framework wherein independent saving and investment activities are joined together by a mediating interest rate simply because investment in fact drives income, which in turn affects saving (Mitchell, Wray and Watts 2019: 188). Furthermore, “once we realise that investment and saving functions are both functions of national income, the theory of interest rate determination provided by the loanable funds doctrine fails because it provides no way of knowing how far the investment and savings functions might shift at different levels of national income” (Mitchell, Wray and Watts 2019: 188). While underlying arguments critiquing Say’s Law can be found in

Marx (1861 - 3)'s *Theories of Surplus Value*, Keynes (1936) offered a more developed account of

Classical assumptions' flaws in the treatment of investment, highlighting the obvious flaw in the Classical model: its assumption that a rise in saving and decline in short-run consumption necessarily provides all the necessary information needed for firms to invest in future productive capacity because those firms will somehow divine what—and when—consumers will want to consume in the future. As Mitchell, Wray and Watts (2019: 191) note:

“Keynes' argument was that while individual saving clearly signals an intention to consume in future rather than today, and thus reduces current demand, there is no information forthcoming to producers as to when and where the future spending will occur. There is thus no reliable market signal sent to firms when households save, other than that they are not spending. There is no information in the rising [unconsumed] inventories to tell firms when households **will** spend those savings in the future and **what** goods and services they will require. This is why 'postponing consumption' depresses demand; and rather than investment rising to fill the demand gap, investment itself may be discouraged due to the fall of effective demand. For this reason, Keynes rejected the Classical theory of the loanable funds market and argued that the interest rate does not equilibrate saving and investment.”

Thus, in Keynes' view, a decline in short-run consumption and rise in saving neither sustains the current position of the aggregate demand curve (through a Classical shift in spending composition from consumer goods to investment goods) nor necessarily induces an expansion in the aggregate supply curve through an investment-driven increase in future productive capacity.

Instead, the interest rate, according to Keynes, constitutes a payment individuals receive for shifting their wealth from liquid money holdings (cash) to less liquid financial assets, with the concept of the liquidity preference being developed by Keynes to explain how individuals make choices concerning the composition of their wealth from more to less liquid financial assets (Mitchell, Wray and Watts 2019: 191).

Post-Keynesian and other heterodox economists³ similarly reject orthodox claims regarding the origins of money, with early scholars like Innes (1913) and anthropologists such as the late David Graeber (2011: 43 - 72) noting the lack of historical evidence for Classical barter theory, instead situating the origin of money in credit relations. Post-Keynesian monetary theory observes bank lending is an endogenous process, with banks creating credit to meet creditworthy demand within certain regulatory constraints and the bank's own appetite for risk (Stanford 2008: 213 – 234; Mitchell, Wray and Watts 2019: 153 – 160; Moore 1979 and 1988; Palley 1991). Or, as Mosler (1995 and 1997) pithily observes, loans create deposits, not the other way around. Hence, as scholars such as Hockett and Omarova (2016) have argued in their seminal paper 'The Finance Franchise', the entire Orthodox view of banks and similar financial institutions as intermediaries between savers and borrowers is “fundamentally false as a description of how a modern financial system works”, with banks instead more closely resembling “franchisees in dispensing a vital public resource: the public's monetised full faith and credit” in a public-private franchise arrangement with the “fanchisor”, the sovereign public (acting primarily through its central bank and treasury).

The Macroeconomics of Superannuation and Implications for Post-Keynesian Theories of Endogenous Money

Implications for Post-Keynesian Theory and Endogenous Money: The Exception Which Proves the Rule

³ With the notable exception of many modern-day Marxist and Austrian School economists, who still largely adhere to the barter myth, and in the case of the latter, regularly advocate for the return to a gold standard.

Superannuation presents a slight, if important, caveat to otherwise correct Keynesian and Post-Keynesian theories concerning the relationship between saving and investment in general, and saving and lending in particular. In terms of the latter, while it is certainly true that savings deposited with commercial banks are not ‘lent out’ in the exogenous manner assumed by the Classicists (or by subsequent New Classical and so-called ‘New Keynesian’ economists), superannuation presents a slight complication in the sense that due to the mandate of super funds to invest the savings—in the form of super contributions—paid into the funds on employees’ behalf by employers, in this particular instance it *could* be said that this *specific* (as opposed to generalised) form of saving does indeed fund investment, while noting the general Post-Keynesian theory of endogenous money still holds: savings *in general*, absent the kind of institutional design and mandated function of entities such as super funds, do not fund investment through the Classicists’ assumed mechanism of savings deposits being “lent out” via the Classical view of banks as intermediaries between savers/lenders and borrowers/investors. If there are any institutions which resemble the Classical description of financial intermediaries, it is the super funds, not banks, and it is for reasons of institutional design and mandate, rather than for reasons inherent to the nature of deposit-taking institutions and the financial system itself.

Keating’s Golden Circle

Thus, the macroeconomic arguments outlined by Love (2008) concerning superannuation, saving, and investment are not necessarily wrong: increasing mandatory saving through larger superannuation contributions (rather than increased saving deposits at banks) does, in fact, increase investment, with the attendant macroeconomic benefits. Then-Treasurer Paul Keating envisioned the superannuation savings-investment mechanism as a “golden circle... a line running through rising household savings, to rising capital supply, to rising

international strength, to stable interest rates, and back to rising household net wealth” (Love 2008: 92). Keating’s conception was wrong however, even if elements of his conclusion were right: superannuation has no impact on the capital supply, which is endogenously-determined anyway, but rather serves as a form of mandated *demand* for capital investment.

What is telling is Love’s (2008: 92) account of the Accord-era trade-off between super contributions and wage growth, and the explicit counterinflationary (i.e. macroeconomic management) benefits which result: by September 1985, “the ACTU Congress... [had] agreed that an initial three per cent employer contribution should go to super **in lieu of immediately spendable wage increases. The quarantining of these funds would serve as a major disinflationary step in the new government-ACTU Accord** [emphasis added].” Which leads us to Keynes and the savings-as-counterinflationary-policy mechanism of *How to Pay for the War* (1940).

Keynes’ How to Pay for the War, Mobilisation Economics, and MMT Literature on Consumption Deferral

Keynes’ pamphlet *How to Pay for the War* (1940) is a masterpiece in macroeconomic policy and early modern monetary theory thinking, billed as “a discussion of how to best reconcile the demands of war and the claims of private consumption.” Absent from Keynes’ analysis is any question of whether the United Kingdom faced a solvency constraint in financing the war effort; rather, Keynes turns to the seminal question later encapsulated by Kelton: “how are we going to resource it?” In examining how resources can be diverted from unnecessary private consumption towards public use in the war effort, the primary risk Keynes sought to mediate was not only a deficiency of real resources for military use, but also that symptom of scarcity, inflation. “every use of our resources is at the expense of an alternative use. And when we have

decided how much can be made available for civilian consumption, we still have to settle the thorniest question of all, how to distribute it most wisely.” In addition to price controls, Keynes (1940: 27) outlines counterinflationary policy mechanisms including deferred pay and forced saving to accommodate public expenditure. As Keynes notes, there are only two alternatives for resource and inflation management: consumers “can forgo the equivalent consumption altogether, or they can *postpone* it [original emphasis].”

Operationalising compulsory-saving-as-counterinflationary-policy: a central bank proposal

We turn finally to how mandatory saving can be operationalised as a regular feature of macroeconomic and counterinflationary management. First, although there is limited space to discuss in this essay, we must note the limitations of existing monetary policy mechanisms on both efficacy and equity-distributional grounds. The Reserve Bank of Australia has failed to achieve its 2-3 per cent inflation target band for most of the past 10 years, even through ever-falling record low interest rates for the past four. Monetary policy, as Mosler has noted, is like a child’s toy plastic steering wheel in the passenger seat: the central bank *thinks* it is driving macroeconomic outcomes, but in reality macroeconomic policy is being driven by the government behind the real steering wheel of fiscal policy. So-called “unconventional” monetary policy, namely quantitative easing and negative interest rates, have also failed parlously to affect either inflation or employment, as predicted informally by Mosler in conversations with Bank of England and Bank of Japan officials in the 1990s and formally predicted by Fullwiler and Wray (2010), not least because banks do not lend out reserves and so any exogenous increase in base money has little impact on broad money aggregates (Sheard 2013). Monetary policy, as Kelton has noted, is also only effective if it ultimately increases private (particularly household) sector indebtedness. In other words, it “works” by weakening private (particularly household) balance

sheets, which has macroprudential implications. As Rochon, Milan, Seccareccia, Toporowski, and Galbraith (2021, forthcoming) point out, interest rate policy is also blunt and inequitable. Central banks have no way of fine-tuning interest rate tightening to take account of the specific sources of inflationary pressure, or the equity-distributional impacts of policy. When the RBA tightens rates, all bank customers are affected, regardless of geography, industry, or socioeconomic class. Interest rate tightening involves a transfer of rents from households, workers, and non-financial firms to banks. Maintenance of a positive target interest rate in the presence of a fiscal deficit also requires the auctioning of government bonds (securities) to drain the excess reserves created and injected into the interbank lending market (or federal funds market in the United States) (Forstater and Mosler 2005; Wray 1998), which both contributes to the politics of debt hysteria and further deepens inequality by increasing financial sector incomes⁴ (Mitchell 2015).

If unconventional monetary policy is ineffective (Fullwiler and Wray 2010) and conventional monetary policy is both ineffective, inefficient, inequitable and usurious, reliance on discretionary fiscal tightening alone is also problematic. As Kelton (2020: 55 and 237) notes, relying on the legislature to “fine-tune the economy with better real-time adjustments in government spending and taxation” is flawed because “can we trust Congress to make the right choices, at the right time, making productive investments when there is fiscal space and exercising the necessary restraint as resources become scarce? Perhaps I’m too cynical, but I’d like some kind of insurance policy.” The “insurance policy” favoured by Kelton (2020), Mitchell (1998a and 1998b), and Wray (1998) is the employment buffer stock (NAIBER) otherwise

⁴ Although it should be noted compulsory superannuation lessens this to some extent in that every nurse, teacher, builder, and low-paid worker in the formal sector likely has a notable exposure to the Commonwealth bond market through universal superannuation.

known as the Job Guarantee or the Employer of Last Resort. While the theoretical and normative-equity arguments for an employment buffer stock are sound, and arguably superior in both counterinflationary efficacy, efficiency, and social outcomes when compared to the NAIRU's *unemployed* buffer stock⁵ (Mitchell, Wray and Watts 2019: 290 - 311), the counterinflationary efficacy of any established Job Guarantee in practice still partly (largely) depends on its activation by policymakers through discretionary fiscal and/or monetary policy tightening (Mitchell and Muysken 2008: 232) to shift workers from the inflating sector of the economy into the employed buffer stock pool. Inflation management in a modern monetary economy could still be improved by further institutional reform.

This paper proposes that the central bank should be empowered with a mechanism for an adjustable rate of compulsory saving or deferred pay, drawing on Keynes' 1940 arguments and the superannuation system. This mechanism would allow the central bank to counter inflation by *deferring* consumption rather than either eliminating it (as is the case with tax increases or spending cuts in a reserve accounting system) or transferring it as financial rents from households to banks (as is the case with conventional monetary tightening).

Keynes (1940: 30) alludes to the normative and political economy advantages of mandated saving over other forms of inflation control: 'for each individual it is a great advantage to retain the rights over the fruits of his labour even though he must put off the enjoyment of them. His personal wealth is thus increased. For that is what wealth is—command of the right to postponed consumption. This suggests to us the way out. A suitable portion of each man's earnings must take the form of *deferred pay*.' Love (2008: 206) refers, if specifically rather than generally, to the counterinflationary effects of an increase in mandatory savings and their nexus

⁵ See also Marx's "reserve army of the unemployed".

with better monetary policy, observing “payments to pension funds in lieu of tax cuts would have eliminated the necessity for Reserve Bank interest rate rises to counter the stimulatory effects of tax cuts to consumers.”

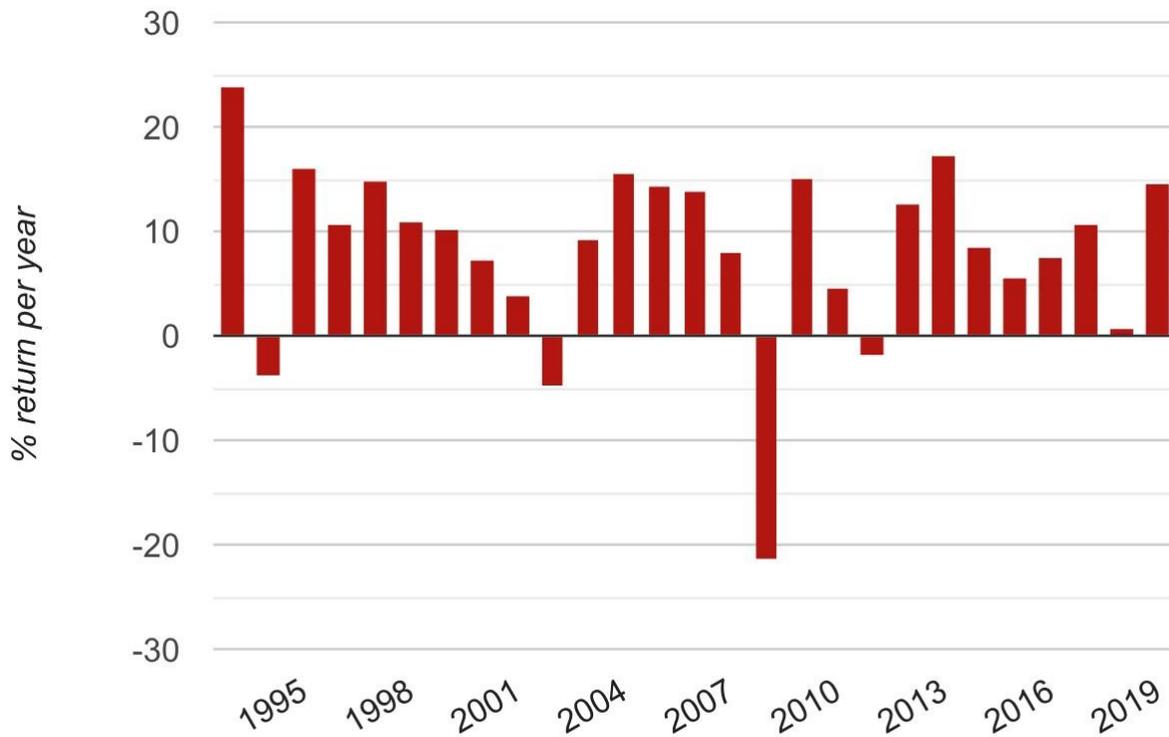
This adjustable compulsory savings mechanism could take a number of forms, with the contrasting options illuminated by Keynesian, Post-Keynesian and modern monetary theories. The first option involves the establishment of a separate, parallel superannuation guarantee separate to the existing retirement-focused SG. In addition to the legislated SG of 9.5 per cent set by Parliament, an additional SG would be established, with a rate beginning at zero adjustable on a discretionary basis by the central bank in its monthly monetary policy meetings. In an inflating economy, the central bank would be free to increase this “auxiliary” SG rate to increase superannuation costs and flows from employer firms to employees’ superannuation retirement investment funds. While this would be the simplest approach, its efficacy depends on the extent to which increases in super contributions ultimately come out of workers’ take-home pay. This debate is inconclusive and ongoing, with Coates (2019), Coates, Mackey and Cowgill (2020) and Lowe (2020) arguing the affirmative and Taylor (2019) and Stanford (2019) arguing the negative.

One way around this debate would be **option two**, whereby the adjustable savings rate more akin to the before-pay pay-as-you-go personal income tax rather than the after-pay superannuation guarantee. This would make the fiscal policy nature of the proposal far more explicit and present an alternative pathway to the notion of an independent fiscal authority proposed by Gruen (1997, 2001) and others’, but potentially without some of the undemocratic drawbacks. While political economy concerns regarding independent fiscal authorities and “taxation without representation” would remain, a potential rejoinder is to note the central bank is not “taxing” income here, but rather quarantining it, with the payments reimbursed to workers

in full (plus any returns from investment) upon retirement. Payments made under this scheme could either be held at the central bank earning the central bank's floor rate of interest on reserves, or held in specially-created term saving deposit accounts at the worker's preferred retail bank at the competitive market going rate, or automatically transferred to the worker's superannuation fund for investment.

Either way, an important final point regarding the proposal's counterinflationary efficacy brings us back to Post-Keynesian endogenous money and Keynes' liquidity preference. If the funds are held until retirement as deposits at either the central or commercial private banks, the increased saving will have no impact upon investment, as banks do not lend out either savings deposits or central bank reserves. This means no growth in investment resulting from the proposal, and very minimal returns compared to super fund returns (see Figure 1 below for the annual performance of the median Growth super fund since the introduction of compulsory superannuation).

Figure 1: Annual financial year performance of the median Growth super fund over 28 years.



Source: Chant West, cited in Drury (2020).

But more importantly, whether deferred pay and compulsory savings are deposited with banks (central or commercial) or with superannuation funds, as well as the liquidity preference of the latter, has a significant impact on both the short and long-run counterinflationary implications of the scheme. **Option two** is highly effective for counterinflationary purposes, given the Quantity Theory of Money, the money multiplier and exogenous money (fractional reserve banking) theories of credit and inflation have been thoroughly discredited and any increase in either base money (reserves held at the central bank) or broad money bank savings deposits will have no impact on credit growth or inflation. However, by preventing their investment, this also thwarts any use of these mandatory savings or quarantined income for capital deepening, building the capital stock, and expanding the long-run aggregate supply curve and the economy's productive capacity through investment in productive assets such as equipment, machinery and technology.

Option one *does* leave this advantage open, but it depends on super funds' liquidity preference (à la Keynes) to hold wealth in more-or-less-liquid financial assets (more liquid forms such as money [cash and bank deposits] and less liquid forms such as bonds) versus significantly less liquid fixed assets (such as infrastructure), which (the latter) *do* in fact contribute to productivity growth. The problem is, short-run counterinflationary efficacy is diminished if super funds use the additional mandatory savings derived from this proposal to invest in (productive-in-the-long-run) fixed capital assets—that is, to effectively place orders for capital goods. Recall that Classical theory and Say's Law assumes an increase in saving has no effect on aggregate demand (and thus employment and inflation), as firms simply shift from production of (immediate and short-term) consumption goods to investment (fixed capital) goods, such that saving merely adjusts the composition of aggregate demand, rather than diminishing it (Mitchell, Wray and Watts 2019: 188). Keynes' theory of liquidity preference, however, points out that “what kinds of goods will be demanded in the future and when... are major challenges for Classical economists [and firms]” (ibid). If super funds' liquidity preference is low at a given point in time, then an increase in the diversion of household income from immediate household consumption to the super funds will not deliver a 1-to-1 reduction in aggregate demand (and thus short-term inflation), as super funds use a large portion (depending on their liquidity preference) to purchase fixed-capital investment goods. There is little short-term counterinflationary benefit from transferring income away from short-term household consumption towards fixed-asset private consumption like building infrastructure in the same period the central bank is trying to curb aggregate demand (inflation) as a whole, not just shift the composition from one sector (say, household consumption of electronics) to another (firms' demand for new equipment, infrastructure, and other physical capital). Yet as noted earlier, while shifting production from consumption goods to investment goods does little to curb aggregate demand per the Classical theory, and thus does little to counter inflation in the short

term (notwithstanding sectoral complexity in the sources of inflation), by increasing productive capacity and eventually the aggregate supply curve, it does stand to reason it does expand the economy's non-inflationary productive capacity over the long run, blunting the proposal's effectiveness as a short-term counterinflationary mechanism yet ironically increasing the economy's non-inflationary capacity in the long-term. The ideal outcome for central bank policymakers is that compulsory savings are funneled to super funds, and are thus invested for respectable returns, but in financial rather than fixed or capital assets (with a relatively high liquidity preference among the super funds) such that the fall in aggregate demand and thus inflation in the short-term is effectively achieved, in line with the central bank's short-term inflation target.

Conclusion

Compulsory superannuation raises interesting questions and caveats for Classical, Keynesian, Post-Keynesian, and modern monetary theories about saving and investment. A similar scheme could be adopted as an explicit counterinflationary policy tool in central banks' arsenal, however its short-term efficacy as a counterinflationary tool depends largely on institutional questions in the policy's design—namely whether the deferred pay is held by central and commercial banks, or by super funds with an investment mandate—and the liquidity preferences of the latter at a given point in time.

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