Macro Finance

Dyrehaugen Web Notebook

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Finance

The finance sector is dancing to any music that makes money for the moment.

Finance is not production, but it seems to be involved in every aspect of it.

Indeed, under conditions of financial capital abundance, finance operates not so much as "a system for the allocation of resources" than as "a weapon by which the claims of wealth holders are asserted against the rest of society".

Piketty himself gets into some murky waters because his "Marshallian apparatus" sees capital "more as a stock of accumulated savings rather than a claim on future output".

Finance is a way to separate foolish retail investors from their hard-earned savings.

Finance is useful. Financialisation, on the other hand, describes a situation in which ordinarily non- financial activity is seconded into service for finance. When finance escapes its marketplace, it is because it has been allowed, or even solicited, to do so. (Part 2 of this paper has detailed the reasons for, and

effects of, financialisation.) Definancialisation, then, refers to the process of restoring ordinary non-financial activity so that it can operate normally, and removing dysfunctional social dependencies on finance. Percy (2021) Universal Basic Prosperity: Sustainable prosperity for the 21st century

Finance is both dumb and dangerous. It is dumb because it can only read numbers, unable to understand, much less assess, difficult social problems or complex business or engineering strategies. And it is dangerous because the people at the helm of financial institutions think they are smarter than they are, which leads them to assume that they should steer the ship…. Financialization has become so deeply rooted that we seem to have unlearned politics. By blindly relying on price tags, we have deprived ourselves of the skills for building consensus and developing effective strategies that avoid imposing the greatest costs on people whose lives are not "priced in." No one benefits more from this calamity than finance. But those returns cannot last indefinitely. (Katharina Pistor)

2

Capitalization

2.1 Discount Rate

Fix

Where did the discount rate come from? The answer: out of thin air. Like the capitalization ritual itself, the discount rate is whatever we define it to be. Capitalists employ the capitalization ritual by ritualistic choosing a discount rate that they deem 'proper'.

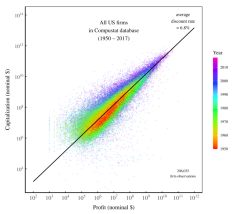


Figure: Profit and capitalization of US firms, 1950 – 2017. Each point represents a US firm. Color indicates the year of observation. The black line shows how capitalization relates to profits for a discount rate of 6.8% — the average found in the data. There are about 200,000 observations in total.

Capitalization is proportional to profit discounted at a rate of 7%.

Is there something special about the discount rate of 7%? The answer is yes and no. That rate is special in the sense that it's what US capitalists have deemed to be 'proper'. But this rate is banal in the sense that it has no deeper meaning. US capitalists discount at 7% because that is the norm they have accepted. Gesture the cross. Discount at 7%. Regularity from ritual.

> Until the emergence of capitalization in the fourteenth century, [the 'proper' discount rate was] seen as a matter of state decree, sanc-

> tioned by religion and tradition, and modified by necessity. The nobility and clergy set the just lending rates as well as the tolerated zone of private divergence, and they often kept them fixed for very long periods of time.

Today, the 'proper' discount rate still has an element of decree. Governments (via central banks) set the benchmark interest rate, which in turn affects the benchmark discount rate on equity.

Far more than just a 'monetary phenomena', then, the inflation rate signals instability in the social order. That instability, it seems, translates into capitalists fears about the future. When the price system is more unstable, capitalists discount present income more steeply.

> The 'science of finance' is first and foremost a collective ethos. Its real achievement is not objective discovery but ethical articulation. Taken together, the models of finance constitute the architecture of the capitalist nomos. In a shifting world of nominal mirrors and pecuniary fiction, this nomos provides capitalists with a clear, moral anchor. It fixes the underlying terrain, it shows them the proper path to follow, and it compels them to stay on track. Without this anchor, all capitalists — whether they are small, anonymous day traders, legendary investors such as Warren Buffet, or professional fund managers like Bill Gross — would be utterly lost.
>
> Finance theory establishes the elementary particles of capitalization and the boundaries of accumulation. It gives capitalists the basic building blocks of investment; it tells them how to quantify these entities as numerical 'variables'; and it provides them with a universal algorithm that reduces these variables into the single magnitude of present value. Although individual capitalists differ in how they interpret and apply these principles, few if any can transcend their logic. And since they all end up obeying the same general rules, the rules themselves seem 'objective' and therefore amenable to 'scientific discovery'.

The regularities of corporate finance are majestic in scope. But these regularities stem not from any laws of nature. They are regularities from ritual.

Perhaps the most important question is where this ritual is headed. Does capitalization have a long-term future? Neoclassical economists like William Nordhaus think so. They're happy to apply the capitalization ritual to existential crises like climate change. And the net present value of their calculations tells them (surprise surprise) that we should do essentially nothing. But of course, by applying a heavy discount rate to future income, that is what they assumed in the first place. It's ritualized apathy.

The ritual of capitalization is surrounded by a mystique of 'higher truth'. Whenever you encounter such a mystique, it's a good bet that you're dealing with

ideology. The point of the 'mystique' is to stop you from looking under the ideology's hood.

Fix (2021) Ritual of Capitalization

3

Debt

Pettis

Most economists have trouble understanding why too much debt may harm an economy, let alone how much debt counts as too much. To make matters worse, the common practice of comparing vastly different countries' debt-to-GDP levels is not a useful tool for gauging how a particular economy is likely to manage its debt burden.

> Debt is conventionally viewed as consisting of transfers of resources from the future to the present, but that isn't quite right. On the contrary, borrowing consists of a current transfer of resources from the lender to the borrower, followed by a future transfer that closes out the loan. This future transfer is normally expected to reverse the original transaction—as resources are transferred from the borrower back to the lender—but this occurs mainly in cases where increases in demand created by the debt are matched by increases in supply. In other cases, depending on a variety of circumstances, the transfers may end up being to or from other sectors of the economy, as described above, that end up bearing the cost of the debt.

Global debt, according to a recent report by the Institute for International Finance, amounted to nearly $300 trillion in 2021, equal to 356 percent of global GDP. This extraordinarily high debt level represents a 30 percentage-point rise in the global debt-to-GDP ratio in the past five years.

Unfortunately, few economists have a clear understanding of why too much debt is a bad thing, let alone how much debt is too much. That makes it hard to know what to worry about and why. Because economists tend to assume that the extent of a country's debt burden is measured by its national debt-to GDP ratio, they often fail to distinguish between types of debt, instead treating a rise in one country's debt-to-GDP ratio as equivalent to the same rise in another

country's ratio, even though the two cases may have very different implications.

So when is debt a burden for the economy and why? Crucially, different kinds of rising debt can have very different effects on an economy. Moreover, even in countries that are seen as having too much debt, the adjustment costs can vary significantly.

There are many ways to resolve ex ante imbalances between demand and supply created by government spending, and all these ways involve the same underlying process: some mechanism, whether intended or not, implicitly or explicitly allocates the adjustment cost onto some sector of the economy. Understanding this is important for understanding some of the ways in which excessive debt can undermine an economy.

Four separate consequences of rising debt can adversely affect the current and subsequent performance of an economy:transfers, financial distress, bezzle (or fictional wealth), and additional spillover adjustment costs termed hysteresis.

Rising debt is not a problem when it causes the supply of goods and services to rise along with the demand it creates. When that happens, the debt is effectively self-liquidating, with debt rising no faster than the real debt-servicing capacity of the economy. The problem is more concerning when debt rises faster than the country's real debt-servicing capacity.

If the transfers take the form of high levels of inflation or financial repression, they can raise business uncertainty and otherwise distort economic activity. If they take the form of higher taxes, they can undermine what economist John Meynard Keynes called "animal spirits" and reduce investment in risky but productive sectors of the economy. Or if they result in trade deficits, they can force up unemployment or household debt and so on.

A related, and far more important, potential problem is the extent to which these implicit or explicit transfers undermine growth *indirectly*.

Increasing uncertainty about which sector will be forced to absorb the cost and how, so economic agents are likely to alter their behavior in ways that protect themselves.

As rising debt causes a growing gap between ex ante demand and supply, economic agents understand that this gap will be resolved by some combination of means including inflation, higher taxes, rising unemployment, wage suppression, financial repression, capital controls, and currency depreciation. As this happens, households—especially wealthy ones—shift their wealth into movable assets or into foreign currency (capital flight), consumers cut back on spending, home buyers and equipment buyers delay purchases, manufacturers move operations abroad, farmers hoard production or cut back on land development, and workers, if they are allowed to do so, will unionize and become more militant or, if not, they will work less efficiently. In countries where foreigners might be seen as acceptable political targets, foreign businesses in particular are likely

to react to uncertainty over debt repayment by liquidating assets and moving abroad. These actions in turn can cause a host of spillover effects.

To the extent rising debt must lead to some sort of adjustment in which certain economic sectors will lose purchasing power to equilibrate demand and supply, each sector recognizes the risk and changes its behavior to protect itself from being forced to absorb the cost. These behavioral changes cause growth to slow, exacerbating the adjustment costs that must be borne by vulnerable economic agents as financial distress automatically spreads through the economy.

Finance specialists will note that a lot of this resembles corporate-finance discussions about the behavior of stakeholders in a business whose probability of default is rising. In fact, what I describe above is the macroeconomic equivalent of something that is well understood in corporate finance circles. While this behavior is well-documented and well-understood in corporate finance, its macroeconomic counterpart seems to be much less familiar to economists.

Rising debt is that it can encourage and accommodate a rise in fictitious wealth or bezzle. This is often the most damaging consequence of rising debt because this fictitious wealth creates distortions in economic behavior both as it is created and, much more importantly, as it is destroyed.

A November 2021 McKinsey report on global wealth reached broadly similar conclusions. Worryingly, it concluded that measures of global wealth, of which real estate accounts for 68 percent, have risen in the past two decades to levels that are roughly 40–50 percent higher than normal. The report reinforces the idea that there may be a great deal of bezzle in the world's major economies

Pettis (2022) How Does Excessive Debt Hurt an Economy?

4

Finance

4.1 Global Finance

Fitchner Abstract

The prediction of America's decline is a regularly recurring phenomenon; this also pertains to the pivotal field of global finance. This article argues that, first we have to consider the United States together with the other Anglophone countries. The English-speaking countries and territories – Anglo-America – have deep common political and socioeconomic roots, of which the unique global Five Eyes intelligence cooperation is merely one manifestation. In finance, New York and London (NY-LON) constitute the decision-making core of this transnational formation. Second, to analyse the highly complex phenomenon of structural power in the globalised international political economy we have to dig deeper to uncover truly meaningful data. Thus, this article evaluates data for nine central segments of global finance from around the year 2000 to 2014. Contrary to the assertions of many declinists, these data show that Anglo-America's dominant structural power has been persistent during this period. Moreover, four novel visualisations show that the US-UK axis is the fulcrum of the international financial system. However, contemporary global finance is characterised by a high degree of latent fragility; significant imbalances, inequalities and contradictions persist and are even likely to grow, potentially undermining the legitimacy and the stability of the whole system.

Fitchner (2021) Anglo-America's power in Global Finance (pdf)

4.2 Money

> Money is the alienated essence of man's labour and life; and this alien essence dominates him as he worships it. (Karl Marx)

4.2.1 Institutional Investors

4.2.1.1 ESG 2.0

Segal

How Institutional Investors Encourage Corporations Bad Behavior

Wittingly or unwittingly, pensions and endowments' investment strategies aid and abet activities that make the financial system more fragile.

The growing scale of institutions and the large amounts of money they need to deploy into high-risk investments is leading to consolidation among asset managers, higher global debt levels, short-term corporate behavior, and market instability.

Institutions' investment strategies are in conflict with environmental, social, and governance goals to which they are increasingly committing.

Pension funds, insurance companies, sovereign wealth funds and others need to deploy large amounts of capital efficiently because they themselves are so big.

Institutions' only option in many cases is to put billions of dollars to work in the largest public and private companies, Rothenberg explained. That results in companies, for example, taking on unsustainable amounts of debt.

There are incentives to layer on debt, much of which is supplied by capital markets and the shadow banking sector.

Ironically, institutional investors want to integrate ESG into their process, but they also contribute to corporate consolidation and huge debt burdens. Institutional investors are essentially contributing to some of their own problems in the way they allocate capital to leveraged loans, high-yield loans, collateralized loan obligations and other higher risk products.

All of this adds to global systemic risks. Unchecked increases in corporate debt result in increased systematic market risk that boomerangs back to investors and their portfolios Existing approaches like Modern Portfolio Theory and ESG or impact investing frameworks don't focus on these potentially negative effects.

Perversely, as major central banks globally respond to the current crisis with rock bottom interest rates and new rounds of quantitative easing (QE), investors and companies are further incentivized to increase their exposure to high-risk debt and inflated asset valuations — a situation that leaves society and markets vulnerable to a rise in interest rates or other unplanned challenges

Segal - Comment - Instititional Investor

Rothenburg

Many of our existing ESG and impact investing frameworks focus on issues at the portfolio company level, but they do not take into account potential negative

impacts from capital structures and investors' influence in shaping them. Asset allocation strategies can be in conflict with ESG objectives.

The conflict materializes in various interconnected ways, particularly from institutional investors' role in increasing global debt levels and fund manager and corporate consolidation.

For long-term, diversified institutional investors, or "Universal Owners" of the market, these dynamics eventually translate into lower financial returns. For workers and communities, these dynamics translate into greater precarity and inequality.

Potential solutions focus on diversifying asset allocation to more regenerative investment structures and asset classes, building an enabling environment through adjustments to team incentive structures, performance reviews, benchmarking and valuation methodologies, and field-building.

Over the past decades, institutional investors have migrated up the risk-return spectrum to asset classes with higher yields. Investor allocations to private equity (PE), venture capital (VC), private debt (PD), high yield bonds (HYBs), leveraged loans (LLs), and collateralized loan obligations (CLOs), for instance, have been growing steadily in response to a number of trends. *While such shifts in asset allocation may suit near-term goals, such as meeting actuarial targets, this institutional allocation to higher risk asset classes has also meant increased global debt burdens, corporate and fund manager consolidation, and risk across capital structures, resulting in fragility for companies, the real economy, and the stability of financial markets. The resulting risks are therefore shared not only by investors, but also governments,workers, and communities alike.*

To optimize leverage ratios, companies may prioritize debt servicing or distributions to investors at the expense of worker payrolls and benefits. Infrastructure and social infrastructure investments — such as power, water, roads, hospitals, nursing homes, housing, and cybersecurity — might be structured in such a way that provides access to end-users at unaffordable prices, or of poor quality, in order to meet investor return expectations and therefore attract capital. Weak capital structures increase the risk of restructurings or bankruptcies that are detrimental for stakeholders, such as workers. Stakeholders have increasingly raised concerns about high leverage, coined "financial engineering," particularly in the PE asset class, for such reasons. 5 Yet studies produced over the past decades, inspired by PE, praise the discipline of debt, and due to a number of additional factors, high leverage ratios are no longer confined to the PE asset class and are prolific across public equity markets, as well.

In practice, the negative impacts of weak capital structures are typically being addressed piecemeal through company-by-company interventions that focus on corporate operations, like a game of whack- a-mole; but key roots of the problem — the investment structures themselves — are left unaddressed.

The unintended negative consequences of highly levered investments have been

underexplored when it comes to ESG and impact investing frameworks and practice. Matters relating to investment structures, capital structures, leverage ratios, earnings calculations, valuation methodologies, benchmarking approaches, and resulting asset allocation and portfolio construction are not typically within the realm of ESG-related responsibilities.

Too much leverage is dangerous for all stakeholders. While leverage looks like a neutral, bilateral accelerant, it actually reduces financial resiliency at the very times when it might be most needed.

Systemic inequality has been shown to result in economic decline.

Neither Modern Portfolio Theory (MPT) nor ESG or impact investing frameworks currently include a focus on potential negative impacts stemming from investment structures.

Corporate debt burdens and leverage ratios are historically high, covenants are light, and defaults and bankruptcies are being held at bay by government support (e.g. through fiscal and monetary policy) – which is also funded by debt, though at the sovereign level.

Corporate funding dynamics have changed since the Global Financial Crisis (GFC), when banks came under heavy regulation that caused them to restrict lending to smaller clients. Capital markets, or the Non-bank Financial Intermediary ("NBFI" or "Shadow Banking") sector, has stepped in to fill this void.

The financial assets of the NBFI sector amounted to $200.2 trillion in 2019, accounting for nearly half of the global financial system in 2019, up from 42% in 2008

How Did We Get Here?

For the past two decades, institutional asset owners have significantly shifted their overall asset allocation strategy. Private markets – including PE, PD, VC, infrastructure, and real estate - as well as LLs, CLOs, and HYBs, have become much larger percentages of overall portfolios. There are a number of reasons for these changes, including, but not limited to, ongoing declines in interest rates by major global central banks, dynamics related to funding ratios of institutional investors such as pension funds, growing interest in the illiquidity premium of private markets, benchmarking practices, investor dissatisfaction with public markets, and increased opportunity for NBFIs to provide financing following banking regulations resulting from the GFC. 16 Private capital assets under management (AUM) in 2019 was approximately US$6.5 trillion, an increase of over US$4 trillion over the past ten years.

Private Equity (PE)

Investor demand is now so high for PE that many are concerned that the asset class is becoming crowded with capital.

Consolidated capital flows stems from the institutionalization of capital. Markets have evolved from being dominated by individual investors to having a large presence of institutional investors. Institutional investors now hold over 40 percent of global market capitalization of listed companies.

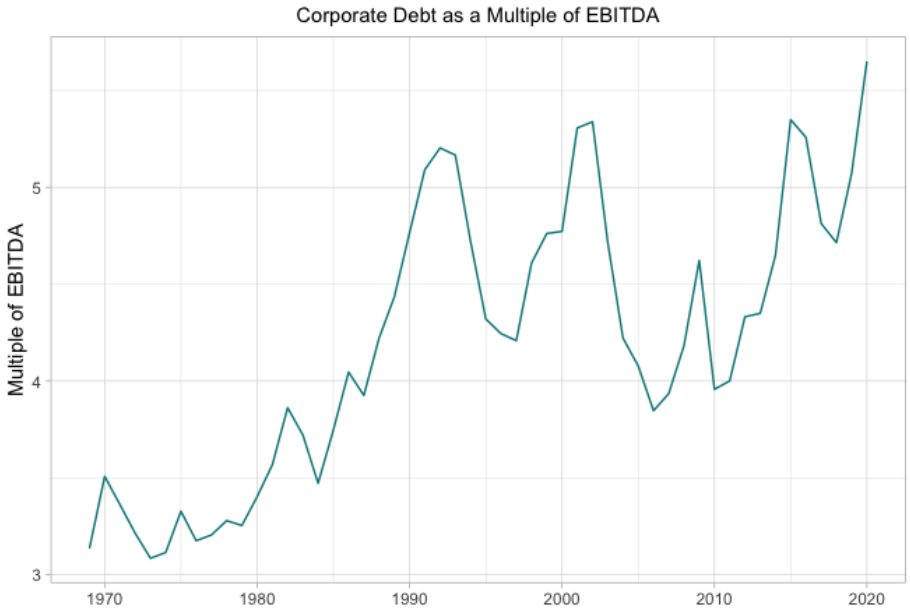
Institutional investors have sizable portfolios and must invest billions if not trillions of dollars. With such large chunks of capital to put to work, they often find it challenging to invest in smaller fund managers, smaller companies, and niche investment strategies due to a number of factors, such as transaction costs.

Even when small deals perform well, which data suggests that they often do, they are hard to justify because they do not meaningfully move the needle in terms of overall portfolio returns.

A well-documented negative impact of consolidated capital flows to larger fund managers is that smaller, emerging, and innovative fund managers can be starved of capital.

Institutionalization of Capital

The consolidation of capital among institutional investors is a double-edged sword. On the one hand, institutions offer individual investors professional money management with multi-disciplinary staff and robust internal infrastructure capable of constructing well-diversified portfolios. Size and scale can also allow large allocators to influence corporate governance of portfolio companies, as well as negotiate more attractive terms with fund managers. It is arguable that fees overall are reduced through these dynamics, and strong ESG practices can be better advocated for. On the other hand, since large institutions need to put significant amounts of capital to work, they often allocate to the largest managers and companies, thereby resulting in consolidation of power, profit, influence, and opportunity among a shrinking pool of asset managers and companies. 53 In order for large institutional investors to act as responsible Universal Owners and effectively manage systematic risk, it will be critical for them to evaluate their asset allocation practices for unintended negative consequences that not only impact the real economy, but also markets and their long-term portfolios.



This high-risk debt is not limited to private companies. A recent Forbes article highlights how, "some of the biggest firms in the United States… have binged on low interest debt. Most of them borrowed more than they needed, often returning it to shareholders in the form of buybacks and dividends. They also went on acquisition sprees."

From the corporate perspective, historically cheap credit due to low interest rates is attractive, particularly when combined with the current tax deductibility of interest expense, studies suggesting that highly leveraged capital structures do not negatively impact stock prices, and arguments that debt adds discipline to corporate management. Yet debt and common uses of funds can increase risk for other stakeholders. M&A has been shown to contribute to corporate consolidation which can stifle SMEs, innovation, suppliers, the quality and affordability of goods and services, labor's bargaining power, and diversification for institutional investors. There is significant literature that explores negative impacts of share buybacks in public companies, given the links with high executive compensation and that cash paid to executives and shareholders can deter from reinvestment in the company, the quality of goods and services, and the workforce. In PE-backed companies, high leverage from acquisitions and dividend recapitalizations can push companies to cut costs related to quality jobs and jeopardize the quality and affordability of goods and services.

As central banks around the world doubled down on low interest rates and QE, investors responded by increasing portfolio allocation to higher risk and yielding asset classes.

The combination of QE and low interest rates with corporate consolidation and

high inequality may well be creating challenges to long-term economic growth, as well as introducing potential drivers of instability for aggregate demand.

Rothenberg (2021) ESG 2.0 - Measuring & Managing Investor Risks Beyond the Enterprise-level (pdf)

4.3 Central Banks

In managing our economy with disembedded measures of wealth, the world's central bankers are effectively agents of the sustainability crisis. They may not wish to be unsustainable by personal inclination, but they certainly are by professional obligation because of how they are duty-bound to act. An entirely foreseeable response to the climate emergency is that people in wealthier countries may choose to pare back their consumption of non-essentials. Certainly, not everyone has the luxury to do this, but the obvious solution of "buying less stuff" has become an articulated idea in wealthy countries. "Flight shaming" and "consumption shaming" are new memes. Articles in multiple UK newspapers have challenged readers to see if they can go a year without buying any new clothes, contravening the media's normal practice of generally trying to coax the economy along. (It buoys the advertising revenue). Such behaviours would amount to a direct hit on GDP in developed countries, where personal consumption can represent two-thirds of the total. Critically, any such reduction in consumption will likely show up as a deflationary decline in economic activity that the world's central banks are on hair-trigger alert to prevent. The large and powerful financial bureaucracy stands ready to provide immediate stimulus to any perceived flagging of measured economic activity. Hence, the arrangement most populations in the world currently live under is that should they collectively choose to buy less, more money will be printed until they have changed their mind. Effectively, our exhausted ecosystem is gasping for a lull in measured economic activity that our financial authorities are pledged to never let happen.

Duncan Austin: Pigou and the dropped stitch of economics RWER95 (pdf)

4.3.1 Central Bank Independence

Market Neutrality

Klooster Abstract

Monetary policy operations in corporate security markets confront central banks with choices that are traditionally perceived to be the prerogative of governments. This article investigates how central bankers legitimise corporate security purchases through a comparative study of the European Central Bank (ECB) and the Swiss National Bank (SNB). As we show, central bankers downplay the novelty of corporate security purchases by relying on familiar pre-crisis

justifications of Central Bank Independence. Citing an ideal of 'market neutrality', central banks present corporate security purchases as pursuing a narrow objective of price stability and obfuscate their distributive consequences. In this way, central bankers depoliticise corporate security purchases: they reduce the potential for choice, collective agency, and deliberation concerning both the pursuit of corporate security purchases and the choices made in implementing these policies. We also describe the undesirable democratic, social and environmental dimensions of these practices, which we propose to address through enhanced democratic accountability.

Klooster Memo

The past decades saw central banks acquire considerable independence from democratic institutions (McNamara 2002, Singleton 2010). Governments justified their decision to delegate monetary policy by relying on a narrow conception of monetary policy. This conception focuses on the setting of short term interest rates to achieve a long-term objective of stable price levels. A crucial element in the justification of central bank independence is the idea that monetary policy is an apolitical, technical area of policymaking (Marcussen 2009). The loss of democratic control that results from the creation of an independent central bank was also thought to be minimal, because distributive choices would remain with elected governments, who both decided on the central bank mandate and retained the use of fiscal instruments to achieve their distributive objectives. In this way, governments depoliticised monetary policy in the sense of reducing the potential for choice, collective agency, and deliberation around the use of monetary policy

The Global Financial Crisis (GFC) led central bankers to move far beyond the narrow task assigned to them under the traditional justification of Central Bank Independence (CBI) To rescue a global financial system on the brink of collapse, central bankers assumed new roles as lenders and market makers of last resort.

Central bankers, meanwhile, are openly concerned that the use of unconventional tools threatens their independence. When independent regulatory agencies extend their power, political authorities often seek to regain control. Central bankers, accordingly, try to counteract repoliticisation and these efforts shape their policies.

To investigate the simultaneously occurring processes of politicisation and depoliticisation we investigate how central bankers relate to the political dimensions of their new unconventional policies.

Klooster (2021) The Myth of Market Neutrality (pdf)

The new exogenous money is exogenous transition shocks in the climate change debate. Fortunately, Bank of England cannot hide behind that rock because of their new climate mandate.

Remember, Mark Carney's 'tragedy of the horizons' speech identified two main risks of climate crisis: - physical risks (climate events) - transition risks - from

green policies to accelerate transition to low-carbon

Now, central banks are confronted with an unpleasant conundrum that reveals the deeply political nature of their operations: greening monetary policy (collateral, unconventional bond purchases) means endogenous transition risks

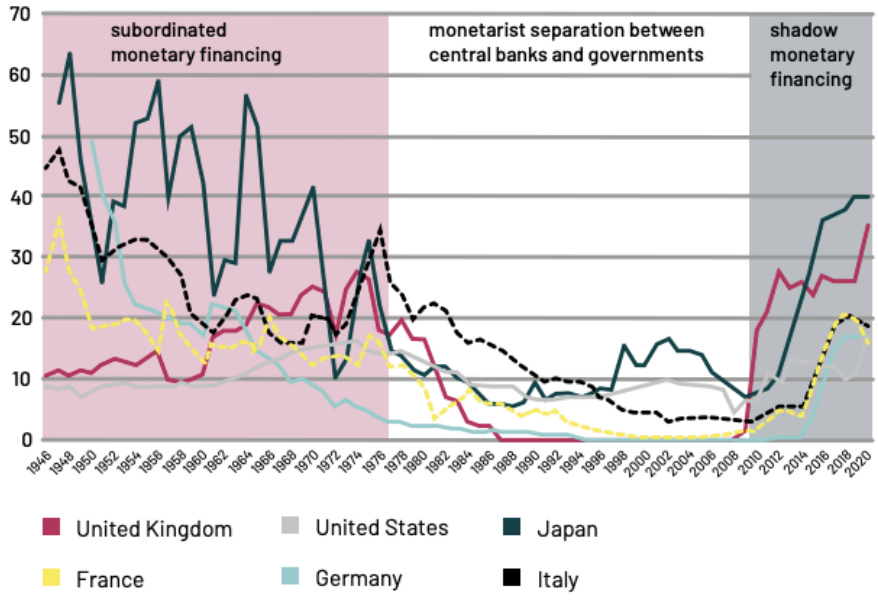
So, in a have your cake and eat it moment, there is a growing tendency in central bank communities to pretend that all transition risks come from the fiscal side (carbon pricing)

It wouldn't be surprising to find the exogenous transition shocks approach in the ECB's monetary policy strategy review, despite **?** and other's recognition that central banks cannot longer hide behind the 'market neutrality' argument.

Gabor (Twitter)

4.3.2 Sovereign Debt held by Central Banks

Figure 1:
Sovereign debt held by central bank, as % of total central government debt.



Gabor (2021) Revolution without revolutionaries: Interrogating the return of monetary financing

4.3.3 Financial Stability

4.3.3.1 Climate Risk

4.3.3.1.1 BIS Recommendations This report provides an overview of conceptual issues related to climate-related financial risk measurement and methodologies, as well as practical implementation by banks and supervisors.

The report contains five key findings: First, climate-related financial risks have unique features, necessitating granular and forward-looking measurement methodologies.

Second, to date, measurement of climate-related financial risks by banks and supervisors has centred on mapping near-term transition risk drivers into counterparty and portfolio exposures.

Third, banks and supervisors have predominantly focused on assessing credit risk, as they advance in applying methods to translate climate-related exposures into categories of financial risk.

Fourth, while banks and supervisors remain at an early stage of translating climate-related risks into robustly quantifiable financial risk, work continues to gather pace

Fifth, key areas for future analytical exploration relate to measurement gaps in data and risk classification methods, as well as methodologies suitable for assessing long-term climate phenomena not always of a standard nature.

BIS (2021) Climate Risk (pdf)

4.4 Index Providers

Fitchner

A silent revolution is happening in investing. It is a paradigm shift that will have a profound impact on corporations, countries and pressing issues like climate change. A silent revolution is happening in investing. It is a paradigm shift that will have a profound impact on corporations, countries and pressing issues like climate change. In 2019 there was a watershed in the history of finance. In the United States, the total value of actively managed funds was surpassed by passive funds. Globally, passive funds crossed US$10 trillion (£7.7 trillion), a five-fold increase from US$2 trillion in 2007.

This seemingly unstoppable ascent has two main consequences.

First, corporate ownership has become concentrated in the hands of the “big three” passive asset managers: BlackRock, Vanguard and State Street. They are already the largest owners of corporate America.

The second consequence relates to the companies that provide the indices that these passive funds follow. When investors buy index funds, they effectively

delegate their investment decisions to these providers. Three dominant providers have become increasingly powerful: MSCI, FTSE Russell and S&P Dow Jones Indices.

A silent revolution is happening in investing. It is a paradigm shift that will have a profound impact on corporations, countries and pressing issues like climate change. Yet most people are not even aware of it.

In a traditional investment fund, the decisions about where to invest the capital of the investors are taken by fund managers. They decide whether to buy shares in firms like Saudi Aramco or Exxon. They decide whether to invest in environmentally harmful businesses like coal.

Yet there has been a steady shift away from these actively managed funds towards passive or index funds. Instead of depending on a fund manager, passive funds simply track indices – for example, an S&P 500 tracker fund would buy shares in every company in the S&P 500 in order to mirror its overall performance. One of the great attractions of such funds is that their fees are dramatically lower than the alternative.

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With trillions of dollars migrating to passive funds, the role of index providers has been transformed.

In the past, index providers only supplied information to financial markets. In our new age of passive investing, they are becoming *market authorities*. Deciding who appears in the indices is not just something technical or objective. It involves some discretion by the providers and benefits some actors over others. By determining which players are included on the list, setting the criteria becomes an inherently political activity.

The three dominant index providers' income mainly derives from the funds replicating their indices, since they have to pay royalties for the privilege. MSCI, FTSE Russell and S&P Dow Jones will increase their role as *a new kind of de facto global regulators*.

This tightly interlinked group of three giant passive fund managers and three major index providers will largely determine how corporations tackle climate change. The world is paying little attention to the judgements they make, and yet these judgements look highly questionable. If the world is truly to get to grips with the global climate crisis, this constellation needs to be far more closely scrutinised by regulators, researchers and the general public.

Fitchner in The Conversation

Petry

Since the global financial crisis, there is a massive shift of assets towards index funds. Rather than picking stocks, index funds replicate stock indices such as the S&P 500. But where do these indices actually come from? This paper analyzes the politico-economic role of index providers, a small group of highly profitable firms including MSCI, S&P DJI, and FTSE Russell, and develops a research agenda from an IPE perspective. We argue that these index providers have become actors that exer- cise growing private authority as they steer investments through the indices they create and maintain. While technical expertise is a precondition, their brand is the primary source of index provider authority, which is entrenched through network externalities. Rather than a purely technical exercise, constructing indices is inher- ently political. Which companies or countries are included into an index or excluded (i.e. receive investment in- or outflows) is based on criteria defined by index pro- viders, thereby setting standards for corporate governance and investor access. Hence, in this new age of passive asset management index providers are becoming gatekeepers that exert de facto regulatory power and thus may have important effects on corporate governance and the economic policies of countries.

Index mutual funds have been available since the late 1970s and the first ETFs have been launched in the early 1990s. However, investors shunned them for a long time. But after the global financial crisis growth of index funds has accelerated mas- sively.

An unprecedented money mass-migration from active to passive funds, which is rational as most actively managed funds are unable to beat broad market indices over longer time periods but charge high fees.

One crucial, yet largely unstudied element of this new era is that index funds effectively delegate their investment decisions to index providers. Index providers are the firms that create and maintain the indices on which passive funds rely and to which asset managers have to pay fees if they use them.

Similar to passive asset management, which is dominated by the 'Big Three' of BlackRock, Vanguard, and State Street (Fichtner et al., 2017), the global index pro- vider industry is very concentrated. Just three firms, MSCI, S&P Dow Jones Indices (DJI) and FTSE Russell, hold a combined market share of almost 80%.

While global index revenues totaled a record US$2.7 billion in 2017, their profit

margins that stand out as exceptionally high. MSCI reports an operating margin of over 60% for its index segment in 2018. Index providers operate in an oligopolistic industry, which has high barriers to competition.

During the last decade the big index providers have had much higher growth than most other financial companies, especially banks.

Index providers today occupy a position of growing private authority, with decision-making and standard-setting capabilities that are consequential in the global political economy. In the past, their indices primarily served informational purposes. An index such as the S&P 500 or the Nikkei was primarily a numerical representation of a particular stock market. Indices served as benchmarks against which analysts could gauge the performance of stocks. While the decisions of index providers had some impact on actively managed funds, the rise of passive investing transformed their role in a significant way. Today, they de facto steer capital with their indices as inclusions of firms or countries to an index can lead to inflows of billions of US$ while exclusions can cause large quasi- automatic outflows. Constructing indices is therefore not a purely technical exer- cise. Index providers have significant discretion in devising their methodologies.

The methodology of the pivotal S&P 500 index was changed at least eight times between 2015 and 2018. Underlying their seemingly technical exercise are decisional discretion and normative assumptions about 'good' corporate governance and 'free' markets. Index providers therefore play a role as standard-setters: their notions on what constitutes good corporate governance at the level of the firm and a favorable investment environment at the level of (national) markets helps or hinders firms and countries in attracting cap- ital, essentially deciding what is investment-worthy in global financial markets. This combination of standard-setting and legitimate decision-making power means that index providers have gained a position of private authority in capital markets with profound politico-economic consequences. Today index providers have become important counterparts for states.

Index providers increasingly are to equity markets what credit rating agencies are to bond markets, crucial 'coordination service firms' that exercise private authority and effectively set standards for the behavior of other firms and even countries

Their new authority was not delegated from the public sphere, but gradually emerged as part of a transformation of the index provider industry – from primarily supplying information about markets to becoming private authorities that are able to set standards on corporate governance and steer international capital flows.

Take for example FTSE Russell, S&P DJI and MSCI's emerging market indices; the index providers' recent decision to include countries such as China and Saudi Arabia to their indices is expected to result in a 'seismic shift' of over US$120 billion in active and passive fund flows by 2020.

Indices act as ‘prisms’ through which fund managers view the investible world.

Financial market indices are far from objective.

They represent ‘deliberate decisions’ made by index providers as every index is a managed portfolio whose composition is decided by the respective index provider.

While these simplified numerical representations might seem objective and technical, they are actually based on complex and (often contested) normative values. Moreover, proc- esses of index production are inherently subjective activities.

Standard-setting is always political.

Distance Governance

Indices and indicators have a governing effect on those that are being evaluated, incentivizing the individuals, companies or states that are being assessed to comply with the norms underlying those numerical representations, as better performance has positive ideational and material effects, enabling a form of ‘governance from a distance’

Critical gatekeepers that exert de facto regulatory power.

The emergence of private authority through the retreat of the state, which provided a space for private actors such as firms to exercise authority.

Questions such as the public regulation of index providers.

Private authority is inherently relational, produced and reproduced through ongoing interactions between the authority and non-authorities, where the formers’ decisions are considered as legitimate by the latter

Rather than coercion or self-interest, legitimacy is a ‘normative belief by an actor that a rule or institution ought to be obeyed’ and is based on how the authority is ‘perceived’ by non-authoritarian actorsRather than coercion or self-interest, legitimacy is a ‘normative belief by an actor that a rule or institution ought to be obeyed’ and is based on how the authority is ‘perceived’ by non-authoritarian actors.

Three conditions for index provider authority. First of all, technical expertise to construct an index is a necessary – but not sufficient. Second condition; crucial for index provider authority is their brand recognition, or more specifically the trust that the international investment community puts in their brands. ‘Authority is socially constructed’ and is ultimately based on trust, which in turn is based on reputation. The big three index providers are ‘brand managers’ : ‘at the end of the day, those products are homogeneous and exchangeable. It’s like water, there are small differences why Evian is more expensive […]. Those are minimal differences, but the price tags are very different! A third condition that underpins index provider authority lies in a set of net- work externalities that reinforce the authority of the major index providers. As first movers they have in effect ‘captured’ different national (e.g. S&P 500 or FTSE

100) and regional (Euro Stoxx 50) market segments with their indices. These network externalities entrench the authority that leading index providers derive from their brands. With these three conditions in place, index providers have become private authorities in financial markets.

The authority of rating agencies developed within and was enabled by changing socio- economic structures, i.e. the growth of capital markets and the decline of banks as allocators of credit, which created a demand for rating agencies' services for the functioning of the then disintermediated structure of finance.

Authority is best understood as an effect of these circumstances, rather than as an entity or a characteristic of an actor or institution' and 'its existence is therefore not func- tional, […] but always contingent on time, place, and circumstance.

Indices had at least some influence on asset managers as an deviation from the relevant index could be conceived as a kind of risk management metric. However, indices only loosely anchored the asset allocation as most fund managers had the discretion to choose both the degree of replicating the index as well as the time period for doing so.

Changed fundamentally with the rise of passive investing in the mid-2000s. Index providers began to influence capital flows in an immediate and comprehensive way. Being a central component of the index funds ecosystem conferred them – gradually and only as a side-effect of their business model – a position of growing private authority in financial markets.

The money mass-migration towards passive investments, which significantly increased the nascent authority of index providers as evermore funds directly tracked their indices. Whereas in the past indices only loosely anchored fund holdings around a baseline, now they had an instant, 'mechanic' effect on the holdings of passive funds, 'steering' cap- ital flows. Increasingly, investments were not actively managed by fund managers but passively invested into index mutual funds and ETFs

This makes sense as the vast majority of actively managed funds have not been able to beat benchmark indices over longer periods of time, while charging substantially higher fees than index funds.

In order to track the performance of 'the market', passively managed funds replicate stock market indices such as the S&P 500 or the MSCI World. Rather than trying to generate 'alpha' and outperform the market by pick- ing stocks, these passively managed funds aim to generate 'beta', simply replicat- ing the performance of specific stock markets while minimizing fees.

By investing in an index, passive investors delegate decision-making about where to invest to index providers. Index investing thus represents a form of 'delegated management' and every discretionary decision by index providers has a 'flow through effect on the investor's portfolio'

A substantial proportion of equity funds that officially are actively managed funds (and therefore charge higher fees than index funds) but actually do not devi- ate much from their benchmark indices. This is referred to as 'closet indexing' or 'index hugging', and it is estimated that in the EU between 5-15% of all equity funds could fall into this category (ESMA, 2016). Therefore, the rise of passive management also increases the authority of index providers vis-a-vis active man- agement because by steering evermore passive capital index decisions now mechan- ically move ever larger parts of the markets, creating a 'pull effect' that actively managed funds need to follow

Hedge funds and sovereign wealth funds (SWFs) generally have low degrees of rep- licating indices (one exception is the Norwegian SWF, which almost invests like a global ESG 5 index fund) and are fully discretionary to follow any index modifica- tion.

Indices no longer merely measure markets. They move them.

Far from simply providing information on 'the market', index providers now offer a variety of cus- tomized branded products, by either tweaking existing benchmarks or repackaging proprietary trading strategies into indices which enable the functioning of (passive) asset management capitalism.

The relationship between index providers and asset managers is intriguing. On the one hand, asset managers depend on the large index providers to create their products that are attractive to investors. On the other hand, they have an interest to reduce the fees they have to pay for using indices. In theory, there are two ways for competition to emerge in the index industry: through new index providers and through self-indexing by asset managers. However, both have so far not been able to break the oligopolistic market structure.

It is further difficult for challenger indices to gain benchmark status as network externalities entrench the authority of the big index providers.

Index providers not only decide to include particular firms, they also make decisions on in- and exclusions of entire markets, steering capital with important politico-economic implications for states.

While many indices are strictly rule-based and thus only influence companies indirectly, some indices – including the S&P 500, the world's most-tracked index – have com- mittees that make discretionary, less rule-based decisions. While the majority of inclusions is rather mechanical and influence is indirect, it is not uncommon that index decisions target individual firms to set a 'precedence' on a particular issue that then gets incorporated into existing methodologies.

It has become standard practice for the majority of key global stock indices to use only the market capitalization of firms for calcu- lating the weight of companies. Market capitalization primarily derives from the (future) profits of corporations. Even though that has changed somewhat in the last decades, profit maximization is still not the exclusive goal of corporations from countries such as France, Germany and Japan.

'reluctant regulators'

'We're not activists. We're setting the minimum standards that investors generally will accept, and our role is to build consensus amongst that investor community as to what that minimum standard should be'.

The three big index providers are therefore best seen as consensus-building agents that aggregate their own interests with those of asset managers from developed economies, i.e. mainly from Anglo- American countries.

Index providers have become de facto private standard-setters over corporate governance.

By reclassifying individual countries, index providers effectively redraw the borders of markets. Index providers set out the criteria that decide which countries are 'investment-worthy'.

Index providers decide whether to include countries into their indices and whether to classify them as 'frontier', 'emerging' or 'developed' markets. 8 By additionally putting countries on watchlists for such inclu- sions, exclusions or reclassifications, index providers create incentives for states to comply with their rules.

MSCI in effect controls the definition of which countries are "emerging markets. Criteria are set out in MSCI's Market Classification Framework, com- prising three elements: economic development; size and liquidity; and investor access. Economic development is not crucial as a criterion, neither are the size and liquidity requirements (only 2-5 companies need to meet minimum requirements). Investor access is the dealmaker/breaker for country classifications, and it is on this that most indexing decisions are based

While index decisions about company inclusions are often more indirect and not targeted at indi- vidual companies, in the case of country reclassifications index providers take a much more proactive role. As the following cases demonstrate, these deci- sions have enormous consequences for states and their national stock markets.

MSCI has a quasi-regulatory function – 'even though MSCI is not a regulator, companies need to abide, to respect their rules'.

Petry (2021) Steering Capital (pdf)

4.5 Hedge Funds

In the midst of a global crisis, the hedge fund has prospered. The top fifteen hedge-fund managers earned an estimated $23.2 billion last year, according to Bloomberg. Chase Coleman, the forty-five-year-old founder of Tiger Global Management, led the way, hauling in more than three billion for himself. The Financial Times took a more democratic view of the phenomenon, noting that

the top twenty "best-performing hedge fund managers of all time" had provided more than sixty-three billion dollars for their investors during the coronavirus-driven market turmoil, "making it the industry's best year of gains in a decade."

Given the supremacy of hedge funds, it was both satisfying and terrifying to observe the recent boom and bust in the value of GameStop, a run driven by small-time speculators. Several hedge funds lost extraordinary amounts of cash—as in billions and billions of dollars—on financial derivatives.

Those who work at hedge funds are diligent about keeping who they are and what they do obscured behind a wall. Secrecy is intrinsic to the job description—for a hedge is a wall.

Kaufman in New Yorker: History of Hedge

4.6 The Wall Street Consensus

> Washington Consensus and structural adjustment is good for you, especially if it helps you avoid US bombing!

Gabor

The Wall Street Consensus is an elaborate effort to reorganize development interventions around partnerships with global finance. The UN's Billions to Trillions agenda, the World Bank's Maximizing Finance for Development or the G20's Infrastructure as an Asset Class update the Washington Consensus for the age of the portfolio glut, to 'escort' global (North) institutional investors and the managers of their trillions into development asset classes. Making development investible requires a two-pronged strategy: enlist the state into risk-proofing development assets and accelerate the structural transformation of local financial systems towards market-based finance that better accommodates portfolio investors. Ten policy commandments forge the 'de-risking state'. They create a safety net for investors in development assets, protecting their profits from demand risks attached to commodified infrastructure assets; from political risks attached to (progressive) policies that would threaten cash flows, including nationalization, higher minimum wages and, critically, climate regulation; and from liquidity and currency risks. These risks are transferred to the balance sheet of the state. The new 'development as de-risking' paradigm narrows the scope for a green developmental state that could design a just transition to low-carbon economies.

De-risking Wall Street

> '….we have to start by asking routinely whether private capital, rather than government funding or donor aid, can finance a project. If the conditions are not right for private investment, we need to work with our partners to de-risk projects, sectors, and entire countries'. (Jim Yong Kim, World Bank Group President (2017))

Washington Consensus

> Anchored in the work of John Williamson (1990, 1993), the Washington Consensus outlined ten policy areas that would set countries on firm market foundations, under a 'holy Trinity' of macroeconomic *stabilization* through lower inflation and fiscal discipline; *liberalization* of trade and capital flows, of domestic product and factor markets; and *privatization* of state companies.

Financial globalization sets the particular context in which 'international development' is pursued in the 21 st century. The new development mantra, spelled out in the *Billions to Trillions* agenda, the World Bank's *Maximising Finance for Development*, or the G20 *Infrastructure as an Asset Class*, aims to create investable development projects that can attract global investors and orient their trillions into financing the SDG (Social Development Goals) ambitions.

For instance, at the 2017 launch of the Maximising Finance for Development, the World Bank promised global investors $12 trillion in market opportunities that include "transportation, infrastructure, health, welfare, education', minted into bankable/investible projects via public-private partnerships (PPPs). These are long-term contractual arrangements through which the private sector commits to finance, construct and manage public services as long as the state, with multilateral development bank support via blended finance, shares the risks to guarantee payment flows to PPP operators and investors.

This shift in the development agenda can be conceptualized as the Wall Street Consensus, an emerging *Development as Derisking* paradigm that reframes the (Post) Washington Consensus in the language of the Sustainable Development Goals, and identifies global finance as the actor critical to achieving the SDG.

Financialisation of development - strategies to 'escort' financial capital into derisked asset classes.

In the age of institutional investors and asset managers that move capital across border via portfolio flows, (subordinated) financialisation is no longer confined to the balance sheet of banks and non-financial corporations, but becomes a state-mediated project of constructing new development asset classes.

The WSC is an attempt to re-orient the institutional mechanisms of the state towards protecting the political order of financial capitalism – against climate justice movements and Green New Deal initiatives.

Development as derisking starts with the question 'how to make projects bankable', or how to construct investible development asset classes.

Making development 'investible' requires a two-pronged strategy: (a) enlist the state into derisking development asset classes, to ensure steady cash flows for investors and (b) re-engineer local financial systems in the image of US market-based finance to allow global investors' easy entry into, and exit from, new asset

classes. Thus, Wall Street Consensus marks a new moment in capitalist accumulation, from what David Harvey (2003) termed 'accumulation by dispossession' to accumulation by de-risking.

The state building project in the Wall Street Consensus is more ambitious than the Post- Washington Consensus tolerance of the state as corrector of market failures, through regulation and poverty alleviation (Öniş and Senses, 2005). The derisking state creates a safety net for the holders of development assets, protecting their profits from demand risks attached to infrastructure assets; from political risks attached to policies that would threaten cash flows, including nationalization, higher minimum wages and, critically, climate regulation; and from bond liquidity and currency risks. These risks are transferred to the balance sheet of the state.

The practice of de-risking goes back to the developmental state, but its politics changed. The developmental state 'de-risked' domestic manufacturing in priority, mainly export, sectors through industrial policies (Wade, 2018). It was successful where it had the capacity to discipline local capital (Öniş, 1991), to govern market failures through evolving institutional structures (Haggard 1990, 2018) and to generate elite support for the developmental state as a political project (Mkandawire, 2001). In its modern version, the entrepreneurial state adopts a "mission-oriented" market-shaping approach that shares the risks and returns with highly-innovative private industries (Mazzucato 2016). In contrast, the WSC state de-risks development asset classes for global institutional investors without the embedded autonomy of the developmental state (Evans, 1991). It lacks an autonomous strategic vision, unless 'more infrastructure' can be described as such, and has fewer tools to discipline global finance.

The WSC downplays the risks of the macro-financial order it seeks to impose. It engineers financial globalization that increases vulnerability to volatile capital flows.

In prioritizing market access, the Grand Bargain with private finance protects bondholders from participating in debt renegotiations or debt service suspension that poor and emerging countries require when under they come under the pressure of large shocks such as the COVID19 pandemic or extreme climate events. It threatens developmental policy space by narrowing the scope for a green developmental state that could design a just transition to low-carbon economies, where the burden of structural change does not disproportionately fall on the poor.

If the Washington Consensus was a coordinated campaign for the global diffusion of market-led policies, then the WSC coordinates a new modality of state governance focused on derisking.

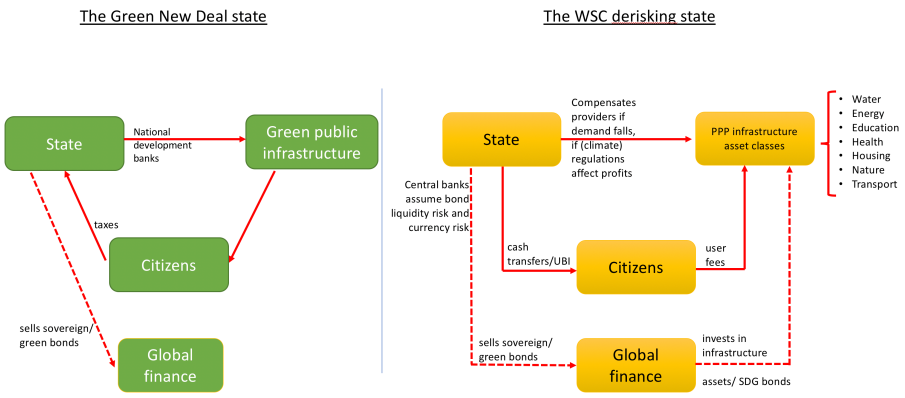
Development is narrated as a matter of closing funding gaps through partnerships with (global) institutional investors, while development interventions are defined as policies that create risk buffers to render development projects 'investible'.

The inclusion of institutional investors - from pension funds to insurance companies and sovereign wealth funds – and asset managers as critical stakeholders upgrades the derisking renewables strategy into a full-blown, ambitious 'development as derisking' paradigm. It reflects the political economy of macrofinancial reform in high-income countries after the global financial crisis.

Worried primarily by the 'global banking glut', that is, excessive cross-border global bank lending, high-income countries tightened global banking rules while simultaneously promoting market-based finance, a 'resilient' form of shadow banking dominated by institutional investors and their asset managers. The growing footprint of these 'new powerbrokers of modern capital markets' reflects the weakening capacity of the state to tax multinational corporations and high-net worth individuals (that pour their cash into institutional investment vehicles) and to provide traditional welfare to its citizens via public health, pensions, education (prompting them to turn to asset-based welfare via pension funds and insurance companies), often under the pressure of fiscal austerity discourses. These political forces together have created a portfolio glut. Mirroring the 'banking glut' of the pre- 2008 period of financial globalisation, generated by a handful of global banks, the portfolio glut is also characterised unprecedented concentration of capital in the hands of a few global asset managers such as Blackrock.

The *portfolio glut* is studied in the capital flow management literature through Rey's (2015) global financial cycle, the idea that financial globalisation creates a trade-off between monetary policy autonomy and free capital flows, rendering middle-income and poor countries vulnerable to US dollar financing conditions.

It creates demands for a new *'derisking' mode of governance* for states in the Global South.



In the derisking mode of governance, the state designs a menu of sector-specific policy and financial derisking measures to encourage PPPs, accepts that this

involves the commodification of infrastructure via user-fees but puts in place cash transfers/universal basic income schemes to mitigate the potential exclusion of the poor from these services. That the derisking state does distributional politics through cash transfers paradoxically accommodates calls for rethinking welfare politics as wage labour becomes increasingly precarious. Cash transfers enable the poor to access commodified public services, and where these are not large enough, the state steps in to guarantee cash flows to investors.

Thus, development is not simply one-side defined by the political economy of capital, but more specifically, by financial capital seeking to expand to new areas, for which it colonises the infrastructure of the state. Financial capital no longer just drags the poor into the embrace of the market, but also the state.

The derisking state can thus be understood as a project that seeks to extend the infrastructural dependence of the state on finance – and thus the infrastructural power of the latter – from its two traditional domains of monetary and fiscal policy to other arenas of the government.

Derisking is not just about the transfers of risks to the state. It is also about exercising infrastructural power to prevent (regulatory) risks from materialising.

Derisking involves the central bank taking on its balance sheet bond liquidity and currency market risks.

The legal battles to code capital into development asset classes requires the state to take risks from the private sector onto its balance sheet, in a clandestine reorienting of public resources that maintains the ideological commitment to 'fiscal responsibility'.

The WSC state assumes demand risk in user-fee based (social) infrastructure and political risk that future governments might (re-)nationalize commodified infrastructure or introduce tighter regulations, ranging from labour laws to climate regulations that would affect profitability.

Uruguay's PPP law, passed by the Mujica government in 2011, caps the total direct and contingent liabilities generated by PPPs for the state to 7% of the previous year's GDP, and fiscal transfers to private operators to 0.5% of previous year's GDP.

The fiscal costs of protecting investors from demand volatility will rise rapidly as extreme climate events accelerate. Indeed, the climate crisis creates political and demand risks that institutional investors need de-risking for.

The WSC protects investors against the political risks associated with green developmental states. The green developmental state would prioritise the reorientation of finance towards low-carbon activities. This requires a public taxonomy of green/dirty assets that overcomes the shortcomings of private ESG ratings, and policies to penalize dirty assets (through capital requirements or haircuts) 21 . Yet in the Wall Street Consensus framework, such policies would classify as political risks, and require the state to compensate their holders.

In its strategy to mutate climate risks into political and demand risks, private finance may have found an important ally. Central banks conceptualize the immediate impact of tighter climate rules regulation that increase the cost of funding or dramatically change asset values as *transition risks*. The faster the low-carbon transition, it is argued, the higher the potential that transition risks affect financial stability, thus binding central banks in political trade-offs that privilege incremental green regulatory regimes and accommodate greenwahing, however urgent the climate crisis. Indeed, when central banks prioritize transition risks, they effectively rely on private finance to drive the climate agenda, with their coordinating role focused on subsidizing green assets, via so-called 'green quantitative easing'.

In seeking to enlist central banks in the political coalitions against biting climate regulation, the Wall Street Consensus constrains the green developmental states directly, by making it liable for transition risks that can be framed as political and demand risks, and indirectly, by reducing the public resources and central bank support for Green New Deal programs that can effectively manage transition risks. The de- risking state and the green developmental state can hardly co-exist, particularly within market-based financial structures.

Derisking market-based finance (formerly known as shadow banking)

The turn to private finance as vehicle for sustainable development requires a change in financial structures to accommodate the portfolio glut. It makes shadow banking, understood as the production (via securitization) and financing (via wholesale funding and derivative markets) of tradable securities, the desirable structure for financial systems across the Global South. Indeed, the WSC consolidates several global initiatives to restructure bank-based financial systems into market-based finance or shadow banking, where institutional investors can easily purchase local bonds (securities), including infrastructure-backed securities, and finance as well as hedge their securities positions via repos and derivative markets. Structural policies shift from developmental states' concern with the productive structure, to the financial system.

The Financial Stability Board announced in 2015 that its new priority would be to transform shadow banking into resilient market-based finance, which it defined as securities, derivatives and repo markets.

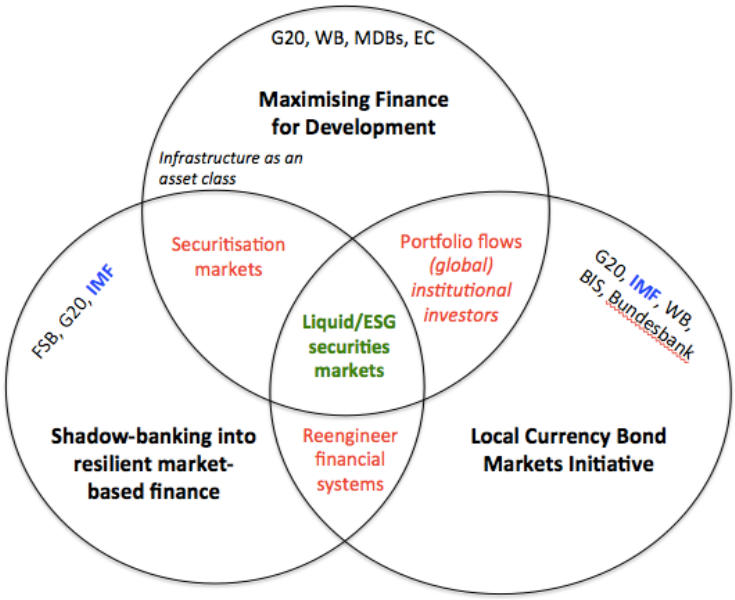


Figure: The turn to securities markets/market-based finance in international development

In sum, the organizational promoters of the Wall Street Consensus championed in a multiplicity of global regulatory spaces the idea that financial structure change is critical to attract the portfolio glut.

The securitization of infrastructure loans would create both highly rated, low-return tranches suitable for conservative pension funds/asset managers and lower-rated, higher return tranches suitable for risk-driven investors. It would also accelerate lending to infrastructure projects, constrained by Basel III rules for banks.

Since market-based finance is more systemically vulnerable than traditional bank-based systems, the Wall Street Consensus assigns a triple de-risking role to central banks: in bond markets and currency markets as market-makers of last resort, and, forced by the inevitable consequences of green washing, as climate rescuers of last resort, for assets left devalued by extreme climate events. Some derisking interventions, particularly in government bond markets, are at odds with the ideological premises of central bank independence. Thus, the process of implicating central banks in upholding the institutional basis of the derisking-centred accumulation regime is incremental. It builds on crises such as the COVID19 pandemic to normalize new derisking practices.

Greenwashing, like any other regulatory arbitrage, eventually confronts its archi-

tects with the systemic problems it feeds – extreme climate events will devalue carbon-intensive assets and greenwashed assets. The political logic of the Wall Street Consensus calls for central banks to rescue the holders of last resort for carbon-intensive assets (Jahnke, 2019), to risk-proof their portfolios, taking on its balance sheet the consequences of systemic greenwashing.

'Development aid is dead, long-live private finance!'

Conclusion

The Wall Street Consensus re-imagines international development interventions as opportunities for global finance. In the new 'development as derisking' paradigm, institutional investors and asset managers are able to influence, if not altogether shape, the terms on which poor countries join the global supply of 'SDG' securities. Multilateral development banks lead the efforts to design the "de-risking"/subsidies measures that seek to protect global investors from political risk or the demand risk associated with privatized public services.

Equally important, this is a state-building project that puts in place the institutional basis for a new regime of derisking as accumulation. The state comes under pressure to institutionally codify risk-proofing arrangements, guaranteeing private financial profits in the name of aligning sustainable projects with the preferred risk/return profile of institutional investors. This includes adopting the US model of private pensions and insurance to create local institutional investors. The tendency toward concentration in the asset management sector (to exploit economies of scale and scope) may result in Global North asset managers absorbing the funds of poor countries' institutional investors and making allocative decisions on a global level.

In pushing for financial system change, development as derisking threatens to render obsolete the old developmental banking model that put finance in the service of well- designed industrial strategies. Development banks join the efforts of constructing and derisking development asset classes. This is a political choice. Developmental banking can arguably better serve a sustainability agenda because banks can easier include, monitor and enforce safeguard policies in long-term relationships with customers. Most countries with a successful experience of industrialisation relied on public development banking as a critical pillar of industrial policies (Naqvi et al, 2018). Public development banking allowed the developmental state to derisk via long-term loans to industrial sectors identified as strategic by an industrial policy aimed at promoting the international competitiveness of local firms.

This re-engineering of financial systems in the Global South, threatens the space for alternative development strategies, and for a green developmental state. Government capacity to design autonomous policies, in many poor countries severely eroded by structural adjustment, will be further eroded by pressures to allocate scarce resources to creating the conditions for private development finance.

Daniela Gabor (2021) The Wall Street Consensus (Paywall) Draft (pdf)

4.7 Imperialism and Financialism

Bichler & Nitzan

Over the past century, the nexus of imperialism and financialism has become a major axis of Marxist theory and praxis. Many Marxists consider this nexus to be a cause of worldy ills, but the historical role they ascribe to it has changed dramatically over time. The key change concerns the nature and direction of surplus and liquidity flows. The first incarnation of the nexus, articulated at the turn of the twentieth century, explained the imperialist scramble for colonies to which finance capital could export its 'excessive' surplus. The next version posited a neo-imperial world of monopoly capitalism where the core's surplus is absorbed domestically, sucked into a 'black hole' of military spending and financial intermediation. The third script postulated a World System where surplus is imported from the dependent periphery into the financial core. And the most recent edition explains the hollowing out of the U.S. core, a 'red giant' that has already burned much of its own productive fuel and is now trying to 'financialize' the rest of the world in order to use the system's external liquidity. This paper outlines this chameleon-like transformation, assesses what is left of the nexus and asks whether it is worth keeping.

Our aim is to highlight the historical development of the nexus of imperialism and financialism, particularly the loose manner in which it has been altered – to the point of meaning everything and nothing.

The paper comprises two parts. The first part examines the different schools. It traces the transmutation of the nexus – from its first articulation in the early twentieth century, to the version developed by the Monopoly Capital school, to the arguments of dependency and Word Systems analyses, to the thesis of hegemonic transition. The second part offers an empirical exploration. Focusing specifically on the hegemonic transition hypothesis, it identifies difficulties that arise when the theory meets the evidence and assesses their significance for the century-old nexus.

Empire and Finance

The centralization of capital altered the political landscape. Instead of the night-watchman government of the laissez-faire epoch, there emerged a strong, active state. The laissez-faire capitalists of the earlier era saw little reason to share their profits with the state and therefore glorified the frugality of a small central administration and minimal taxation. But the new state was no longer run by hands-off liberals. Instead, it was dominated and manipulated by an aggressive oligarchy of 'finance capital' – a coalition of large bankers, leading industrialists, war mongers and speculators who needed a strong state that would crack down on domestic opposition and embark on foreign military adventures.

The concentrated financialized economy, went the argument, requires pre-capitalist colonies where surplus capital can be invested profitably; and the

cabal of finance capital, now in the political driver's seat, is able to push the state into an international imperialist struggle to obtain those colonies.

At the time, this thesis was not only totally new and highly sophisticated; it also fit closely with the unfolding of events. It gave an elegant explanation for the imperial bellicosity of the late nineteenth century, and it neatly accounted for the circumstances leading to the great imperial conflict of the first 'World War'.

Monopoly Capital

In the brave new world of oligopolies, the emphasis on non-price competition speeds up the pace of technical change and efficiency gains, making commodities cheaper and cheaper to produce. But unlike in a competitive system, where market discipline forces firms to pass on their lower costs to consumers, under the new circumstances, cost reductions do not translate into falling prices. The prevalence of oligopolies creates a built-in inflationary bias that, despite falling costs, makes prices move up and sometimes sideways, but rarely if ever down.

This growing divergence between falling costs and rising prices increases the income share of capitalists, and that increase reverses the underlying course of capitalism. Marx believed that the combination of ever-growing mechanization and ruthless competition creates a tendency of the rate of profit to fall. But the substitution of monopoly capitalism for free competition inverts the trajectory. The new system is ruled by an opposite 'tendency of the surplus to rise'.

The early theorists of imperialism, although using a different vocabulary, understood the gist of this transformation. And even though they did not provide a full theory to explain it, they realized that the consequence of that transformation was to shift the problem of capitalism from production to circulation (or in later Keynesian parlance, from 'aggregate supply' to 'aggregate demand'). The new capitalism, they pointed out, suffered not from insufficient surplus, but from too much surplus, and its key challenge now was how to 'offset' and 'absorb' this ever-growing excess so that accumulation could keep going instead of coming to a halt.

Black Hole: The Role of Institutionalized Waste

Until the early twentieth century, it seemed that the only way to offset the growing excess was productive and external: the surplus of goods and capital had to be exported to and productively invested in pre-capitalist colonies. But as it turned out, there was another solution, one that the early theorists hadn't foreseen and that the analysts of Monopoly Capital now emphasized. The surplus could also be disposed off unproductively and internally: it could be wasted at home.

'Waste' denoted expenditures that are necessary neither for producing the surplus nor for reproducing the population, and that are, in that sense, totally unproductive and therefore wasteful. These expenditures absorb existing sur-

plus without creating any new surplus, and this double feature enables them to mitigate without aggravating the tendency of the surplus to rise.

Use high military spending as a way to secure the internal stability of U.S. capitalism.

The magnitude of military expenditures has no obvious ceiling: it depends solely on the ability of the ruling class to justify the expenditures on the grounds of national security. Similarly with the size of the financial sector: its magnitude expands with the potentially limitless inflation of credit. This convenient expandability turns military spending and financial intermediation into a giant 'black hole'.

Spearheaded by U.S.-based multinationals and no longer hindered by inter- capitalist wars, argued the theorists, the new order of monopoly capitalism has become increasingly global and ever more integrated. And this global integration, they continued, has come to depend on an international division of labour, free access to strategic raw materials and political regimes that are ideologically open for business. However, these conditions do not develop automatically and peacefully. They have to be actively promoted and enforced.

Military spending comes to serve a dual role: together with the financial sector and other forms of waste, it propels the accumulation of capital by blackholing a large chunk of the economic surplus; and it helps secure a more sophisticated and effective neo-imperial order that no longer needs colonial territories but is every bit as expansionary, exploitative and violent as its crude imperial predecessor.

Dependency

The imperial powers relentlessly and systematically undermined the socio-economic fabric of the periphery, making it totally dependent on the core. And when decolonization finally started, the periphery found itself unable to take off while the capitalist core prospered. At that point, there was no longer any need for core states to openly colonize and export capital to the periphery. Using their disproportionate economic and state power, the former imperialist countries were now able to hold the postcolonial periphery in a state of debilitating economic monoculture, political submissiveness and cultural backwardness – and, wherever they could, to impose on it a system of unequal exchange.

This logic of dependent underdevelopment was first articulated during the 1950s and 1960s as an antidote to the liberal modernization thesis and its Rostowian promise of an imminent takeoff.

Whereas earlier Marxist theorists of imperialism accentuated the centrality of exploitation in production, dependency and World-Systems analysts shifted the focus to trade and unequal exchange. And while previous theories concentrated on the global class struggle, dependency and World-Systems analyses spoke of a conflict between states and geographical regions.

Red Giant: An Empire Imploded

'Financialization' is no longer a panacea for the imperial power. On the contrary, it is a 'sign of autumn', prime evidence of imperial decline.

Finance (along with other forms of waste) helps the imperial core absorb its rising surplus – and in so doing prevents stagnation and keeps accumulation going. But there is a price to pay. The addiction to financial waste ends up consuming the very fuel that sustains the core's imperial position: it hollows out the core's industrial sector, it undermines its productive vitality, and, eventually, it limits its military capabilities. The financial sector itself continues to expand absolutely and relatively, but this is the expansion of a 'red giant' – the final inflation of a star ready to implode.

The process leading to this implosion is emphasized by theories of hegemonic transition.

The maturation of a hegemonic power – be it Holland in the seventeenth century, Britain in the nineteenth century or the United States presently – coincides with the 'over-accumulation' of capital.

This over-accumulation – along with growing international rivalries, challenges and conflicts – triggers a system-wide financial expansion marked by soaring capital flows, a rise in market speculation and a general inflation of debt and equity values. The financial expansion itself is led by the hegemonic state in an attempt to arrest its own decline, but the reprieve it offers can only be temporary. Relying on finance drains the core of its energy, causes productive investment to flow elsewhere and eventually sets in motion the imminent process of hegemonic transition.

The United States benefited from being able to control, manipulate and leverage this expansion for its own ends. The growing severity of recent financial, economic and military crises suggests that this ability has been greatly reduced and that U.S. hegemony is now coming to an end.

End of Nexus?

'Financialization' has not worked for the hegemonic power: despite the alleged omnipotence of its Wall Street-Washington Complex, despite its control over key international organizations, despite having imposed neoliberalism on the rest of the world, and despite its seemingly limitless ability to borrow funds and suck in global liquidity – the bottom line is that the net profit share of U.S.-listed corporations has kept falling and falling.

Of course, this isn't the first time that a monkey wrench has been thrown into the wheels of the ever-changing nexus of imperialism and financialism. As we have seen, over the past century the nexus has had to be repeatedly altered and transformed to match the changing reality. Its first incarnation explained the imperialist scramble for colonies to which finance capital could export its 'excessive' surplus. The next version talked of a neo- imperial world of monopoly

capitalism where the core's surplus is absorbed domestically, sucked into a 'black hole' of military spending and financial intermediation. The third script postulated a World System where surplus is imported from the dependent periphery into the financial core. And the most recent edition explains the hollowing out of the U.S. core, a 'red giant' that has already burned much of its own productive fuel and is now trying to 'financialize' the rest of the world in order to use the system's external liquidity. Yet, here, too, the facts refuse to cooperate: contrary to the theory, they suggest that the U.S. 'Empire' has followed rather than led the global process of 'financialization', and that U.S. capitalists have consistently been less dependent on finance than their peers elsewhere.

Bichler & Nitzan (2012) Imperialism and Financialism (pdf)

5

Financial System

> We have a financial system that systematically generates risks and we have not created the safety nets that would contain that risk and make it more manageable. Tooze (2022) Recession risk in a world in the grip of the global dollar cycle

5.1 Treasuries

Tooze

The ability of investors to sell Treasuries quickly, cheaply, and at scale has led to an assumption, in many places enshrined in law, that Treasuries are nearly equivalent to cash. Yet in recent years Treasury market liquidity has evaporated on several occasions and, in 2020, the market's near collapse led to the most aggressive central bank intervention in history. … a high degree of convertibility between Treasuries and cash generally requires intermediaries that can augment the money supply, absorbing sales by expanding their balance sheets on both sides. The historical depth of the Treasury market was in large part the result of a concerted effort by policymakers to nurture and support such balance sheet capacity at a collection of non bankbroker-dealers. In 2008, the ability of these intermediaries to augment the money supply became impaired as investors lost confidence in their money-like liabilities (known as repos). Subsequent changes to market structure pushed substantial Treasury dealing further beyond the bank regulatory perimeter, leaving public finance increasingly dependent on high-frequency traders and hedge funds—"shadow dealers." The near money issued by these intermediaries proved highly unstable in 2020. Policy makers are now focused on reforming Treasury market structure so that Treasuries remain the world's most liquid asset class. Successful reform likely requires a legal framework that, among other things, supports elastic intermediation capacity through balance sheets thatcan expand and contract as needed to meet market

needs."

This is the abstract for an essay modestly entitled "Money and public debt: Treasury Market Liquidity as a Legal Phenomenon" - the latest block buster collaboration from Lev Menand of Columbia University and Josh Younger (ex of JP Morgan now NY Fed) - in the Columbia Business Law Review.

My aim here is to amplify their crucial arguments. Everyone interested in global finance should read the article.

American public finance has long been closely intertwined with the American monetary framework and that deep and liquid Treasury markets are, in large part, a legal phenomenon. Treasury market liquidity, in other words, did not arise organically as a product primarily of private ordering. Instead, it was actively constructed by government officials. The high degree of convertibility between Treasury securities and cash—the market's "liquidity"—depends upon entities that can create new, money-like claims to buy Treasuries. Sometimes the government's central bank has issued these claims directly, as in March 2020; other times these claims were issued by central bank-backed instrumentalities, such as banks and select broker-dealers.

They connect here to three important strands of thinking about money and finance: the idea that the state money-finances its spending (MMT/Tankus et al), the political economy of financial markets (Braun, Gabor et al), the legal construction of finance (Pistor et al).

The key point is that the issuance of public debt goes in hand with the issuance of credit and money in a public-private partnership.

United States has never relied exclusively, or even primarily, on money instruments issued directly by government agencies. Instead, since the Founding, the government has outsourced money augmentation. By design, investor-owned enterprises—typically, chartered banks—have been the predominant money issuers in the economy. And the federal government, recognizing this, has set terms and conditions for their money creation.

Between 1863 and 1916, Congress established a network of investor-owned federal corporations—national banks—to serve as the country's primary money-issuing institutions and required that these instrumentalities back their paper notes with Treasuries. … In doing so, the federal government conjured captive demand for federal debt. Although, under the resulting legal regime, the government formally borrowed to manage deficits, it borrowed in significant part by selling Treasuries to national banks, which, in turn, funded their purchases with newly issued notes and deposits.

When the U.S. joined the Allied effort in World War II, the Fed went even further. It bought large quantities of Treasuries directly and administered prices for Treasury debt, pegging short-and-long-term Treasury rates using its own balance sheet — *monetary finance*.

Up to the mid-century, secondary markets for already-issued government debt, what we think of today as the "bond market", did not play a major role in the US monetary and fiscal nexus. In the 1950s this changed, with a deliberate policy decision to shift conduits of Treasury financing away from bank balance sheets attached to the Fed and instead to place Treasuries, through the capital markets (where bonds are bought and sold daily) with a much wider array of investors. This decision was motivated by the realization that a system for absorbing Treasuries based on bank balance sheets, left the banking system "clogged up" and inelastic. Before 1914 almost two thirds of America's very limited public debt was held by banks. By the early 2000s banks held a tiny fraction of a gigantic debt pile. It was the Fed that was key to enabling the vast bulk of US Treasuries to be held outside the US banking system, through a new set of relationships with participants in capital markets.

As a major hiccup in 1953 revealed, for a large and dynamic market in Treasuries to be other than dysfunctional, it needed backstops and this required "creative lawyering and ongoing government support". And so, to help stabilize the new market for Treasuries, the Fed set about developing and supporting the sale-and-repurchase agreement, or *"repo."*

Repo

> A repo is economically equivalent to a secured loan but structured as a sale of a bond combined with an agreement to repurchase that bond at an adjusted price on a date specified in advance. When the first and second transaction in a repo are spaced a day apart (and made exempt from the bankruptcy process), repos function (in certain respects) like bank deposits. Dealer firms, therefore, could conduct overnight repo transactions primarily with nonbank corporate "depositors," effectively money-financing their operations.

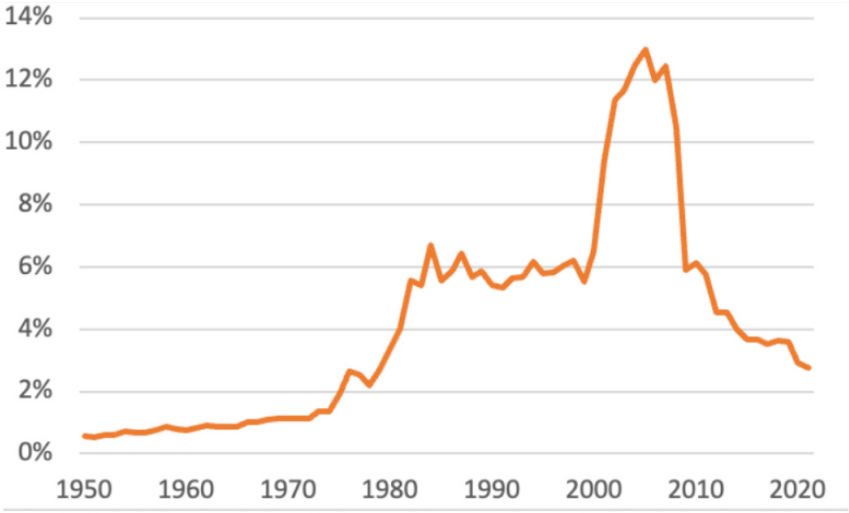
The new role of the Fed as manager of the capital market-Treasury funding mechanism rather than the bank-based-Treasury funding mechanism, was to backstop the repo market. The Fed did not indiscriminately extend this support to all comers but instead designated an inside group of "primary dealers". Initially there were 18 primary designated in 1960. The number grew to 46 by 1988 before declining to 21 in 2007. These were not high street banks benefiting from deposit insurance and intensive regulation, but market-facing investment banks - both US and foreign - and bond dealerships. Their access to Fed repos meant they could build a deep and liquid market for end-investors to buy Treasuries in the safe knowledge that they could always be repoed for cash with the primary dealers, with the Fed acting as the guarantor of the final link in the chain.

Developed with active Fed backing and defended against obstructive regulatory changes - crucially to exclude repoed collateral from any bankrupty proceedings - the repo system expanded "from roughly $2 billion in the early 1960s, to $12 billion in the late 1970s, to more than $300 billion in the mid-1980s." From

there it continued to progress.

The Fed-backed, primary dealer-managed Treasury market, operating on the basis of repos, was the anchor not just of America's financial system, but that of the entire capitalist economic world.

Table 5: Daily Average Trading Treasury Volume (as a Percentage of Total Marketable Debt)[325]



By the early 2000s, with private bonds, and large packages of mortgage-backed debt entering the system, the repo market was churning many trillions of dollars in credit per day. In 2007 daily turnover reached a remarkable 13% of total marketable Treasury debt. And the primary dealers were operating with leverage of 47x their capital base. Despite the huge volumes and the hair-trigger responses of a market that was in effect offering trillions of dollars in overnight finance, the risks seemed manageable because, in the last instance, a primary dealer could always access the Fed backstop for their Treasury portfolio.

It was this system that imploded in 2008, with huge "runs on repo" the most famous victim of which was Lehman.

Through massive liquidity provision the Fed prevented a total collapse. But, though this forestalled an implosion, the pre-2008 structure did not survive. The elite group of primary dealers were shaken to their foundations and over the coming years, they either folded (Lehman) or were bought out and absorbed by bigger banks (Bear Stearns by J.P. Morgan Chase, Merrill Lynch by Bank of America), or formed their own bank holding companies (Goldman Sachs and Morgan Stanley), thus coming under the protection of deposit insurance and comprehensive bank supervision.

To reduce the risk of a systemically important mega-bank getting into serious

trouble, these regulations were designed to dissuade big banks (which now controlled the primary dealers in Treasuries) from engaging in very high volume, highly leveraged, low margin business, like running large repo books. This reduced the elasticity of the Treasury markets. The growth in the new non-bank "shadow dealers" kept the market functioning, but from 2017 onwards pressures increased.

Public debt in private hands increased by $2.7 trillion from 2017 to 2019. At the same time, the Fed was unwinding its QE purchases and America's big banks had no appetite to expand their holdings of Treasuries. Increasingly, the Treasury market migrated back towards lightly regulated non-bank players.

Into the place of the old primary dealers stepped so-called principal trading firms (PTFs) and other high-frequency traders (HFTs) that earned margins on trade matching. At the same time hedge funds devised new strategies that incentivized them to hold long positions, effectively functioning as inventory managers for the market. Hedge funds gobbled up whatever balance sheet capacity was offered to them by the big banks, for fearing of losing their "allocation".

The result was a build up of Treasury holdings in the hands of lightly regulated but highly leveraged balance sheets. It was this fragile patchwork of bank and non-bank actors in the US Treasury market that imploded in March 2020 under the impact of the COVID shock.

Under massive stress, the basic legal, financial and, ultimately, political structure that underpins the interlinked public and private system of money and public debt was starkly revealed: The day was saved only by a dramatic intervention by the Fed, which used its balance sheet to absorb supply and smooth out price fluctuations. It was what Chairman Martin (chairman of the Fed between 1951 and 1970) had aimed to avoid: direct central bank intervention undergirding federal finance.

Our modern monetary and fiscal constitution profoundly entangles the state and the private financial system and it is the central bank that forms the ultimate backstop.

We are entering a critical phase in the financial history of the U.S. and the dollar. The trajectory of mandatory federal spending points to a secular widening of deficits over the medium-to long-term. Ensuring markets keep pace with that growth remains, as Chairman Martin observed back in 1959, "obviously needed for the functioning of our financial mechanism." Absent reform, one possibility is another panic.

Tooze (2023) Chartbook 238: Making & remaking the most important market in the world. Or why everyone should read Menand and Younger on Treasuries.

5.2 Financial Dominance

> „Financial Dominance“ - interest hikes are less likely out of fear of financial instability even if needed to fight inflation.

Smith

Central banks live in terror of losing their credibility. If people believe that a central bank isn't willing to do whatever it takes to keep prices from spiraling out of control, then they'll raise their prices, because they think everyone else is going to raise their prices, and the central bank won't act to stop the madness. So then when the central bank finally decides that enough is enough, it has to raise rates far more — and cause far more damage to the economy — just to convince everyone that things have changed and the hawks are once more in control.

This puts the Fed on the horns of a dilemma. If it keeps raising rates, more things will break in the financial system. Bank balance sheets will get weaker, putting them in more danger of bank runs like the one that just happened to SVB. But if the Fed pauses its rate hikes or cuts rates to ease the pain in the banking world, it runs the risk of losing its credibility and letting inflation go out of control, necessitating even bigger rate hikes and even more pain in a few years.

This is just the normal inflation-unemployment tradeoff, but with a financial angle thrown in. Bank weakness is bad because it causes banks to pull back lending, thus reducing growth and employment. Bank failures are bad for the same reason, only more so. But banks also have a lot of political clout, and banking panics are seen as huge public relations disasters for the government — as are bailouts, when those become necessary to stop a panic.

We might call this situation “financial dominance” (echoing the term “fiscal dominance”, which is when the central bank can't raise rates because it's afraid of making it hard for the government to pay the interest on its debt). Some economists think financial dominance is already making the Fed slow down its rate hikes.

Smith (2023) SVB and the Fed Charting a course between inflation and bank failures

Brunnermeier

When a crisis hits, it is necessary that some economic entity within a society absorb the shock. Owing to its economic and regulatory power, it is believed that a government is able, at least partially, to decide which entity will take on the losses. For example, it may inflate its debt away or default on it to pursue fiscal stimulus, and bail out specific sectors or economic entities. The financial sector is naturally one such entity: for example, the government may toughen foreclosure laws or soften private bankruptcy laws in order to push losses from

households onto the financial sector – which could be fair, given that parts of the financial sector's revenues are earned because of its role as an insurer.

Ex-ante, the government cannot commit not to redistribute across the different economic entities of the economy (financial sector, households, nominal savers, etc.). How it redistributes depends on how this affects the aggregate state of the economy, and the sectors with the least side-effects/amplification will usually be taking the hit, while the others might be bailed out. Losses, especially to an undercapitalized financial sector, can be dramatically amplified and spill over to the real economy. Hence, as we have seen in the recent financial crisis, the financial sector is usually one of the sectors onto which losses are not pushed; rather, it is the sector that is directly or indirectly bailed out.

The financial sector positions itself to anticipate this mechanism, and this is the essence of financial dominance. Because it can detect crashes and reallocate its resources faster than many other entities, the financial sector will make sure it is weak – e.g. it will become very levered, refuse to issue sufficient amounts of equity, and hence decrease its loss-absorption capacity – in order to avoid bearing losses on its own. For that matter, it can put itself in a position close to where amplification mechanisms and hence downward spirals are likely, should it lose more, forcing authorities to avoid financial repression and even to bail out some of the weakest banks assumed to be suffering from severe liquidity, or even solvency problems. Just before and at the peak of the financial crisis, therefore, the financial sector took unreasonably risky positions while continuing to pay large amounts of dividends instead of raising its equity cushion in anticipation of potential losses. Hence, highly levered and sensible to shocks, the financial sector almost completely collapsed when the crisis actually hit. In a sense, the financial sector follows the motto "being weak is your strength".

The financial sector, through the forces of competition, easily makes strategic moves to ensure that losses cannot be pushed onto it.

Ex-post the shock, this behavior forces the relevant authorities not only to refrain from pushing losses onto the financial sector, but even to bail it out, for not doing so would make matters worse due to the amplification channel. Both fiscal and monetary authorities are typically involved in the subsequent bailouts. Fiscal policy (i) extends government guarantees and (ii) undertakes direct recapitalization through equity injections. Indeed, after the crisis, we saw national entities often coming to the rescue of their national banks (or playing an important role in it), with Ireland being a primary example. Monetary policy actions are similarly important in recapitalizing banks. Conventional interest rate cuts lower banks' funding costs and affect asset prices. Subsequent sizable asset purchase programs lifted these assets off the banks' balance sheets at favorable prices. This implicit or "stealth" recapitalization of the financial sector (see Brunnermeier and Sannikov, (2015) is one of the transmission mechanisms of monetary policy and can lead to an overall improved economic outcome. In other words, redistribution is not a zero-sum game and can under certain circumstances make all the agents in the economy better off. Note that this redistribu-

tion mechanism of monetary policy transmission is conceptually quite distinct from the standard consumption-demand management transmission emphasized in the Keynesian literature. In standard representative-agent New Keynesian economies, monetary policy works through the substitution effects induced by interest rate changes.

Fiscal and monetary policymakers can essentially be cornered to bail out the financial sector

Brunnermeier (2016) Financial Dominance (pdf)

5.3 Credit

Ryan-Collins

Credit drives Housing Prices

One of the most remarkable, but neglected, macroeconomic shifts in the past 50 years has been the transformation of banking systems in advanced economies from their textbook role of lending to non-financial firms for working capital and investment to becoming real estate lenders (Jordà et al. 2017). Mortgage lending in advanced economies increased on average from 40 percent of GDP in the mid-1990s to almost 70 percent by the finan- cial crisis of 2007–2008, whilst the stock of business loans rose by little more than 5 percent (Jordà et al. 2017). During the same period, average real house prices followed a path similar to that taken by mortgage credit, doubling in value, suggesting credit was the primary driver of rising prices.

Ryan-Collins (2021) Private Landed Property and Finance: A Checkered History (pdf)

5.4 Asset Manager Capitalism

> Asset manager capitalism is a structure of power. It is interwoven with policy. It has expanded at the same time as central bank asset purchases (QE) have become the key tool of macro-policy. It is expanding the frontiers of financialization into every area of life. Asset managers need yield. They get yield by financializing everything from real estate to natural capital. And this is capitalism. It is interwoven with social structure, inequality and class.

Braun

The political economy literature explains financialization in the United States as the result of policymakers – for reasons specific to the American political economy between the late 1960s and early 1980s – turning to financial markets to solve problems of governability and profitability. My argument, although

compatible with this conjunctural explanation, instead emphasizes the macroeconomic – and historically recurring – process of wealth accumulation as an underlying, structural cause.

The puzzle that arises from this argument: the strange non-death of the rentier in an era of financial capital abundance. Keynes predicted that once the resource the financial sector controls became abundant, the "cumulative oppressive power of the capitalist to exploit the scarcity-value of capital" would decline. Recent economic history has borne out the first part of Keynes' prediction, but not the second: Finance capital has become abundant, but the rentier has returned to "rude health"

As per Piketty, the best measure of this health is the gap between the rate of return on capital (r) and the rate of economic growth (g). Subsequent work has shown this gap to have proven remarkably resilient in recent decades.

My central proposition is that whereas capital scarcity increases the exit-based structural power of finance, capital abundance strengthens the ownership- and control-based structural power of finance.

The asset management sector comprises, first and foremost, mutual funds and exchange-traded funds, as well as the less regulated and more leveraged institutions, namely hedge funds, private equity funds, and venture capital funds. 8 Although the distinction tends to get blurry in practice, there is a fundamental difference between institutional investors that are asset *owners*, and asset *managers* that are pure intermediaries in the business of managing other people's money for a fee-

The asset management sector has seen exceptional growth over the past half century. What is more, since the global financial crisis of 2008 most global banks have greatly expanded their asset management arms, as have many insurers. On the list of the world's top-10 asset managers, the "Big-Three" asset managers (BlackRock, Vanguard, and State Street Global Advisors) are closely followed by the asset management arms of Goldman Sachs, Allianz, and the like.

The assets of investment funds started to rise steeply in the 1980s and especially the 1990s, and today stand at twice the level of bank assets loans. The growth of institutional capital pools in general, and the concentration of the asset management sector in particular, have fundamentally reshaped financial markets and the structure of financial asset ownership.

share ownership concentration, believed to be an anachronism belonging to the finance capital era, made a comeback through the backdoor of the retirement-asset fueled lengthening of the investment chain. As a result of this "Great Reconcentration", the United States is no longer the dispersed ownership society that scholars across disciplines and across generations – from Berle and Means, to Jensen and Meckling, to Hall and Soskice – took for granted.

Large, voice-affording stakes and full diversification ceased to be mutually exclusive; while liquidity – and thus the exit option – had evaporated. This combina-

tion makes asset manager capitalism historically unique, and the implications for the structural power of wealth owners and their financial intermediaries are by no means straightforward.

In their quest for scale, large asset managers have essentially relinquished the option to exit individual investments. This is a consequence, first, of the size of their stakes in individual companies – which even in a liquid market cannot be sold without causing a major drop in the share price. Second, the loss of exit is a feature of the index-tracking investment strategies pursued by the majority of funds offered by the Big-Three asset managers. The existing theoretical framework would predict the structural power of large asset managers to be weakened by this loss.

The loss of the exit option is compensated, however, by the increase in *voice*. One source of asset manager voice is the brute voting power that comes with large shareholdings. Their voting power makes the large index-tracking asset managers key allies for hedge funds, which routinely seek the support of the Big Three for their activist campaigns.

The second source of asset manager voice is *diversification*. The Big Three have promoted the narrative that their fully diversified ("universal") shareholdings make them the quintessential long-term shareholders, whose interests are aligned with environmental, social, and governance (ESG) objectives.

Whether asset managers actually wield their structural power, and in whose interest, remains an open question. If the logic of universal ownership is compelling in theory, in practice it is counteracted by a host of "agency problems", ranging from the cost of exercising voice to the cost of alienating the corporate managers who control the allocation of retirement plan assets to competing asset managers.

Asset managers' dominant role in capital markets affords them infrastructural power vis-a-vis fiscal and monetary authorities. Hiring BlackRock to support their market operations has become routine for central banks around the world.

Asset managers' overriding preference is for welfare state policies that increase private household savings and, crucially, for macroeconomic policies that sustain high asset prices. This shift in financial-sector preferences has far-reaching implications for the political economy of macroeconomic policy.

Braun (2021) Asset Manager Capitalism (pdf)

Tooze

We live in a remarkable world. As of July 20 2021, three asset managers, BlackRock, Vanguard Group and State Street Corp. collectively owned about 22% of the average S&P 500 company, according to data compiled by Bloomberg, up from 13.5% in 2008.

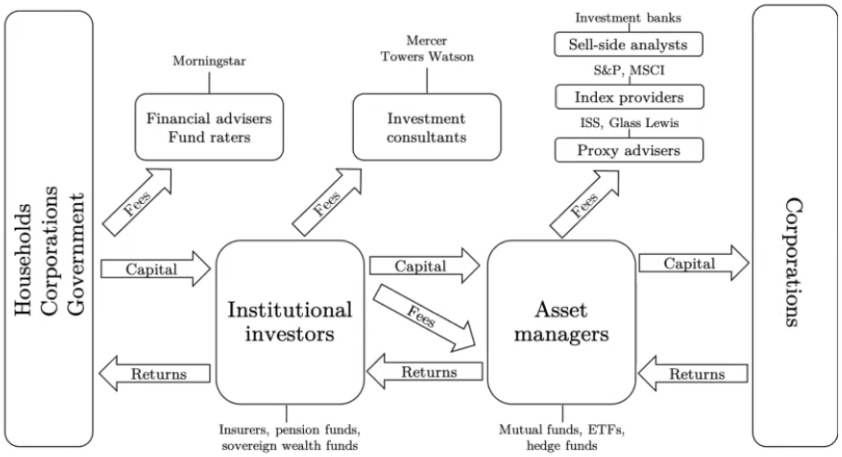
On Benjamin Braun:

INVESTMENT is about wealth preservation NOT productivity enhancement!

Financial capital has become abundant in the global economy. The logic of supply and demand would suggest that wealth owners and their financial intermediaries should see their structural power decline. Paradoxically, the ultimate gauge of rentier power – the gap between the rate of return on capital (r) and the rate of economic growth (g) – has proven remarkably resilient since the 1980s. Why did this gap not shrink? The guiding hypothesis of this project is that the power of wealth owners is partly a function of the organization of finance. The project studies the rise of different types of asset managers – firms that pool and manage "other people's money" – and their impact on the economic and political determinants of the rate of return on capital.

Asset manager capitalism differs from early 20th-century "finance capital" because unlike the banks studied by Hilferding, today's asset management giants combine control with diversification.

Figure 1: The equity investment chain



Source: Author's own illustration.

The key point to recognize is how asset managers earn their money. It isn't through the returns of the corporations they invest in, but through the fees paid to them by institutional investors who aggregate the funds of households, corporations, governments etc. Those fees, of course, will ultimately only roll in if the asset managers earn good returns. But, if you stripped this down, the households could ultimately own the assets themselves. Adding the intermediation, advice, expertise, reduction of complexity etc etc is the key to the entire business.

Asset managers are mediated owners. They are mediated also as a result of the sheer size of their portfolios. They are radically diversified, owning slices of

practically every corporation worth anything. But their bulk means that their ability to exit stock is limited. They are simply too big.

Like a robber baron, BlackRock has achieved a high concentration of ownership. Unlike a robber baron it has a huge diversification of what it owns and a limited interest in any particular bit of its portfolio. This somewhat paradoxical state of being into everything and unable to get out, gives rise to the idea that asset managers are what is called "universal owners".

Not only do institutional investors own a majority of the public equity of the world, but through that ownership, their success as investors is dependent on the performance of the economy at large. Large owners who own a representative "slice" of the economy are more dependent on general macroeconomic performance than on the performance of any one stock or portfolio.

What BlackRock wants is exorbitant. It wants the public balance sheet to step in backstop any risks that asset managers might be running (in making serious ESG investments.)

And because BlackRock is a huge universal owner, when it asks for a public backstop it means the public balance sheet of the world - no kidding!

It is almost as though someone at BlackRock has been reading the *Communist Manifesto* and is asking themselves: Where is that "committee for managing the common affairs of the whole bourgeoisie" that we were promised? And no, a 1990s-style ad hoc combo of Greenspan-Summers-Rubin won't do the trick. Universal owner → universal public backstop please!

The fundamental different political economy produced when government conceives its role as being essentially to derisk investment by gigantic private asset managers.

Focusing on 2008 encapsulates the shift from a bank-centered financial model to the rise of asset management. In 2008-9, banks were discredited by the crisis and literally began to cannibalize themselves to survive.

> Asset manager capitalism is a structure of power. It is interwoven with policy. It has expanded at the same time as central bank asset purchases (QE) have become the key tool of macro-policy. It is expanding the frontiers of financialization into every area of life. Asset managers need yield. They get yield by financializing everything from real estate to natural capital. And this is capitalism. It is interwoven with social structure, inequality and class.

Tooze (2022) The Rise of Asset manager Capitalism

Braun

Asset Manager Capitalism is a historically distinct corporate governance regime. Whereas the control-based dominance of finance capital during the early 20 th century was characterized by credit-debt relationships between banks and

corporations, today asset managers' equity holdings dominate; and whereas the shareholder capitalism of the late 20 th century was characterized by impatient investors wielding the threat of exit, the power of asset managers in corporate governance is based on their large and illiquid, yet fully diversified shareholdings. Recent evidence suggests that the structural power wielded by asset managers determines corporate governance outcomes on environmental and social issues, influences product market competition, and shifts the macroeconomic policy preferences of the financial sector.

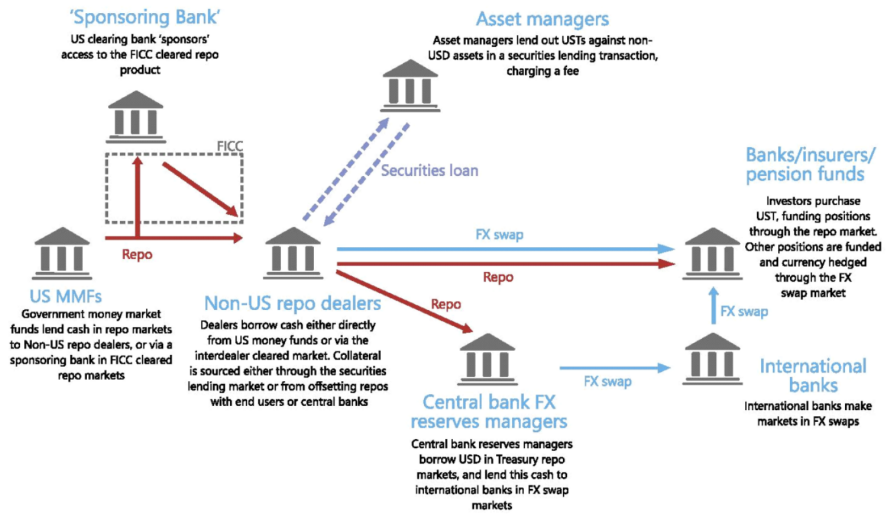
Braun (2022) From Exit to Control (pdf)

5.5 US Dollar Funding - Global Credit Creation

Tooze

If you want to understand how credit is created globally, don't start with the neoclassical fable of households savers and borrowers that sits at the heart of the Diamond and Dybvig model (And yes I do know that that does not exhaust D&D's contribution and that run dynamics of the type they describe happen in market finance too!). If you want to understand the modern system, start with a diagram like this one, as recently drawn by a BIS team.

An example of a US dollar funding chain — Graph 17



Borrowers and lenders of US dollars usually rely on intermediaries. A characteristic of international US dollar funding markets is that they may involve several layers of intermediation that give rise to long and complex funding chains and

result in significant interconnectedness for the financial system, more than in most domestic markets.

Tooze (2022) Chartbook #160 Kindleberger, Mehrling and that Nobel Prize

5.6 Career Hubs

Bühlmann Abstract

In this contribution, we introduce 'career hubs' as an alternative to interlocking directorates and propose to study transnational corporate elite networks with this new concept. Career hubs, the most frequent common career organizations, put emphasis on knowledge brokering and allow us to study a larger variety of organizations to understand the form and the spread of elite networks. We use a sample of 1366 firms on the Forbes 2000 list of 2018 and investigate the careers of 16,500 top executives by linking these data to the BoardEx database. We find three types of career hubs: global audit and consulting firms, financial firms participating in a transatlantic banking alliance and large US consumer goods conglomerates – and highlight the mechanisms through which they shape the spatial structures of finance led capitalism. In the conclusion, we consider the implication of our results for the literature on corporate networks and propose a series of future research avenues in the career hub perspective.

Bühlmann (2023) How career hubs shape the global corporate elite (paywall)

6

Financialization

Braun

Financialization in the United States has been explained as the result of the exhaustion on the Fordist growth model. Competition in interna- tional trade, de-industrialization, and disinfla- tionary policies all put pressure on political actors to liberalize finance so that newly cre- ated credit could substitute for stagnating wage income and sustain aggregated demand. 11 However, as historians Fernand Braudel and Giovanni Arrighi have argued, financialization has been a recurring feature of capitalist devel- opment. It tends to be driven by a slowdown of accumulation that makes reinvesting profits in immobile productive capital relatively less attractive to capitalists, who instead seek returns from liquid financial claims.

Braun (2021) Fueling Financialization: The Economic Consequences of Funded Pensions (pdf)

6.1 Washington Consensus

Copley

Financialization Was a Response to Capitalism's Failings

Popular critiques of financial deregulation often blame the City of London's excessive political influence. But financialization wasn't imposed on capitalism by elite plotting — it was a political response to its inherent crisis tendencies.

Financialization refers to the growing size and importance of financial markets in global capitalism since the 1970s. Credit bubbles have inflated, colossal banking institutions have swallowed up smaller ones, and complex financial instruments have proliferated. Many industrial corporations have also become

financialized, earning increasing revenues from financial ventures and reinvesting them in short-term schemes to boost share prices. Everyday life, too, has been transfigured. We are increasingly pressured to approach our lives like balance sheets, making prudent investments, managing risk, and acquiring financial assets (chiefly housing) to insulate ourselves against economic uncertainty.

This process of expanding financial logics has been accompanied by another development, referred to as "secular stagnation" or the "long downturn." Global capitalism's dynamism has waned following the end of the post–World War II economic boom. Since the 1970s, profitability, investment, and GDP growth have remained relatively stagnant. What paltry growth the world economy has enjoyed in recent years has depended on continuous interventions by central banks, which have channeled vast quantities of money into financial markets in an attempt to stimulate a boom.

The era of financialization has thus witnessed both financial expansion and economic stagnation. Ours is a world in which stories of record-breaking stock market rallies share the news cycle with gloomy growth projections and spectacular images of revolts by the poor and policed.

How did we arrive at this point? It's important to understand that financialization was not, in fact, a spontaneous market development — rather, it was deeply political. This phenomenon was engineered by advanced capitalist states through policies of financial liberalization during the 1970s and 1980s, and then it was exported around the world under the banner of the **Washington Consensus**.

Britain lies at the heart of this story. Margaret Thatcher's radical liberalization of the UK's banking sector was instrumental in forging a global financial order in which the City of London is a crucial hub. Indeed, some of the worst practices revealed by the 2008 crash were conducted by the London branches of global banks. As Peter Gowan observed, the City became for Wall Street "something akin to what Guantánamo Bay would become for Washington: the place where you could do abroad what you could not do back home."

The key UK policies that propelled financialization were not primarily driven by financial lobbying or neoliberal doctrine, nor were they part of a larger political blueprint. Instead, these liberalizations were messy, ad hoc attempts to address the political quandaries churned up by the "stagflation" crisis of the 1970s and early 1980s — itself generated by capitalism's inherent crisis tendencies.

These liberalizations were not designed to cater to City elites. Indeed, they endangered the guaranteed profits of many London bankers, exposing them to competition from foreign conglomerates that dwarfed them in scale and sophistication. These policies often found greater support from the Confederation of British Industry than from financial lobbies. Neither were they straightforward enactments of neoliberal dogma. First, they began in 1971, before the so-called "neoliberal revolution." Second, they were geared to address more mundane governing problems. Far from a cunning blueprint, these policies were "a leap in the

dark," as Thatcher's financial secretary (and future chancellor) Nigel Lawson called them.

The British liberalizations that propelled financialization were desperate, pragmatic attempts to navigate the contradictory imperatives of global capitalism and domestic politics in a moment of deep crisis.

It is unclear whether our conquest of the state, to which so much energy has recently been devoted, could put the financial genie back in the bottle — at least not without generating equally objectionable side effects. Financialization was the result of politicians struggling with the real contradictions of governing capitalism. Socialists today, were they to win office, would face these same contradictions. Chief among them is that the capitalist state's very capacity to act depends upon profitable labor exploitation within its territory. Policymakers are not dominated by conniving financiers but by this impersonal compulsion to achieve profitability, which emanates from capitalism's marketized social relations.

Financial liberalizations represented one strategy to negotiate this ugly reality. If a leftist government reversed these liberalizations, it would need to offer an alternative plan to marry popular legitimacy with the lucrative exploitation of its citizenry. For this reason, no matter who signs the executive orders, the state cannot simply "build a new society just as well as a new railway," as Marx once remarked. It cannot legislate for a just world when injustice sustains it. This is the confounding strategic terrain that confronts us as we seek to wrestle with capitalism's out-of-control financial logics.

Copley (2021) Financialization Was a Response to Capitalism's Failings

7

Macro Finance

Cochrane Abstract

Macro-finance addresses the link between asset prices and economic fluctuations. Many models reflect the same rough idea: the market's ability to bear risk is greater in good times, and less in bad times. Models achieve this similar result by quite dif- ferent mechanisms. I contrast their strengths and weaknesses. I highlight directions for future research, including additional facts to be matched, and limitations of the models that should prod future theoretical work. I describe how macro-finance mod- els can fundamentally alter macroeconomics, by putting time-varying risk premiums and risk-bearing capacity at the center of recessions rather than variation in the interest rate and intertemporal substitution.

Cochrane Memo

Asset prices and returns are correlated with business cycles. Stocks rise in good times, and fall in bad times. Real and nominal interest rates rise and fall with the business cycle. Stock returns and bond yields also help to forecast macroeconomic events such as GDP growth and inflation. 1 Stocks have a substantially higher average return than bonds. Typical estimates put the equity premium between 4% and 8%. Even 4% is puzzling. Why do people not try to hold more stocks, given the power of compound returns to increase wealth dramatically over long horizons?

The answer is, of course, that stocks are risky. But people accept many risks in life. In lotteries and at casinos they even seek out risks. The answer must be that stocks have a spe- cial kind of risk, that stock values fall at particularly inconvenient times or in particularly inconvenient states of nature.

So, just what are the bad times or bad states of nature, in which investors are particularly anxious that their stocks do not fall? Well, something about recessions is an obvious candi- date. Losing money in the stock market is especially

fearsome if that event tends to happen just as you lose your job, your business is losing money, you may lose your house, and so on. But what is the feared event exactly? How do we measure that event? And what does this fear that stocks might fall in recessions tell us about the macroeconomics of recessions? These questions are what macro-finance is all about.

Why are people so afraid of stocks when they do not seem that afraid of other events?

In sum, we face two main questions. First, the equity premium question: What is there about recessions, or some other measure of economic bad times, that makes people particu- larly afraid that stocks will fall during those bad times—and so people require a large up- front premium to bear that risk? Second, the predictability question: What is there about recessions, or some other measure of economic bad times, that makes that premium rise—that makes people, in bad times, even more afraid of taking the same risk going forward?

The consumption-based model works well at a qualitative level, as does the story that people are afraid of recessions, and become more risk averse during recessions. The challenge is to find concrete, quantitative, and theoretically explicit measures of fearful outcomes and of risk aversion, that quantitatively account for asset pricing facts.

**Macro-finance vs Macro-economics*

Though called "macro-finance" this literature still stands quite apart from macroeco- nomics. Macroeconomics by and large does not use, for understanding recession-related quantity and goods-price dynamics, the preferences or market structures that macro- finance uses to understand recession-related asset pricing dynamics. Macroeconomics by and large ignores first-order effects of uncertainty, focusing on "the" short term interest rate and the consequent allocation of consumption over time.

The central lesson of macro-finance denies this approximation: Business cycle-related asset price fluctuations are all about variation in risk premiums.

In recessions, both consumption and investment fall, and so output and the labor to pro- duce it fall. Most theories of business cycles therefore start with two questions: First, why does consumption fall? Second, why does a rise in desired saving not produce a rise in in- vestment? These questions have been the heart of macroeconomics since Keynes.

Macro-finance suggests that recessions, such as fall 2008, are not times at which people became thrifty, saving more to provide a better tomorrow, and they are certainly not times of high real interest rates. Macro-finance suggests that people consumed and in- vested less because they were scared to death—because of risk, risk aversion, high risk pre- miums, precautionary savings, not because of sudden thriftiness and a wrong level of the overnight federal funds rate.

Corporate investment has very little relationship with real interest rates, despite

the prevalence of this channel in macroeconomic models.

The key to falling investment, then, is a mismatch between the riskiness of real corpor- ate investment projects, and the higher risk aversion of savers.

This is not the only path to greater unity between macroeconomics and macro-finance, of course. It allows us to merge the relatively frictionless preference- or market-structure based models (habits, recursive utility, idiosyncratic risk, rare disasters) that generate time- varying risk aversion with the standard general-equilibrium aggregative models that per- vade macroeconomics. But the behav-ioral view, as outlined above, might suggest instead a reverse causality by which behavioral misperceptions in stock markets spill over to macro- economics, or it might suggest a pervasive behavioral misperception behind both macro and finance. And merging macroeconomics with asset pricing is the rallying cry of the insti- tutional finance/frictions research agenda, which aims to put pervasive credit constraints, balance sheet imbalances, agency frictions, and so forth at the heart of macroeconomics as well as of asset pricing.

Cochrane (2017) Macro-Finance (pdf)

7.1 Postwar Macrofinancial Regime

Braun

The macro-financial regime of the postwar period was characterized by sub-stantial financial repression. Strict financial regulation and controls on inter-national capital mobility subor- dinated private finance to the interests of the non-financial and the public sectors. To the extent funded pension systems existed, they were "characterized by a close proximity between the state and pension funds."

Braun (2021) Fueling Financialization: The Economic Consequences of Funded Pensions (pdf
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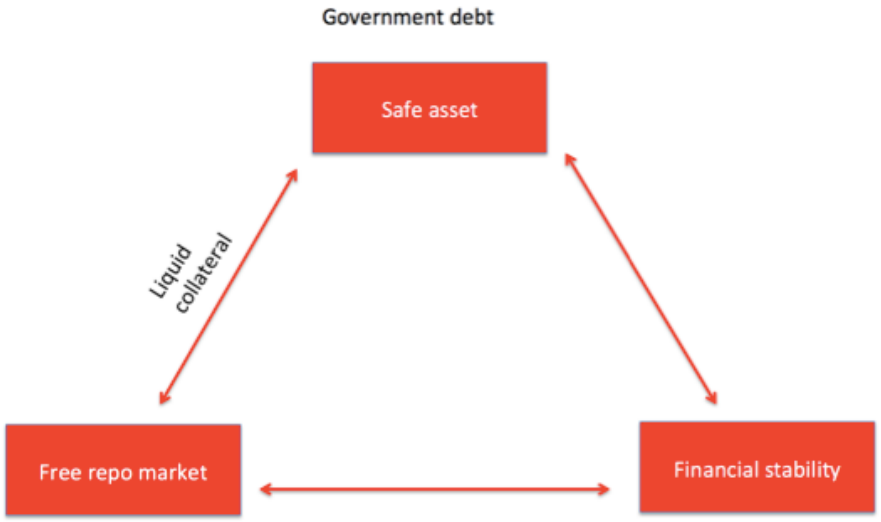
7.2 The (Impossible) Repo Trinity

Gabor

While the state withdrew from economic life, privatizing state-owned enterprises or state banks, and putting macroeconomic governance in the hands of indepen-dent central banks, its role in financial life grew bigger. Sovereign debt evolved into the cornerstone of modern financial systems, used as benchmark for pric-ing private assets, for hedging and as base asset for credit creation via shadow banking. The state's role as debt issuer, passive and systemic at once, has been reliant, beyond the arithmetic of budget deficits, on the intricate workings of the repo trinity.

The repo trinity captures a consensus in central bank circles emerging after the 1998 Russian crisis, the first systemic crisis of collateral-intensive finance, that financial stability requires liquid government bond markets and liberalized repo markets



The Fed and the Treasury celebrated repos as innovative, liquidity enhancing instruments that would support the state in the post fiscal-dominance era.

Pressured to adjust to a world of independent central banks, market-based financing and global competition for liquidity, European states embarked on a project of creating modern government bond markets, with modernity understood to mean the structural features of the US government bond market: regular auctions, market-making based on primary dealers and a liberalised repo market.

Central banks, with the Bank of England leading the way, now accept that financial stability means supporting liquidity in collateral markets in times of stress rather than supporting banking institutions as in the traditional lender of last resort (LOLR) model.

The quiet revolution in crisis central banking that involves direct support for core markets may appear like, but does not entail a return to, fiscal dominance. Rather, it creates financial dominance, defined as asymmetric support for falling asset prices.

Gabor (2016) The (Impossible) Repo Trinity

7.3 The Washington Consensus

Gabor

The Washington Consensus paradigm was anchored in the work of John Williamson. The Washington Consensus outlined ten policy areas that would set countries on firm market foundations, under a 'holy Trinity' of macroeconomic *stabilization* through lower inflation and fiscal discipline; *liberalization* of trade and capital flows, of domestic product and factor markets; and *privatization* of state companies.

After the East Asian crisis, against the poor performance of countries closely wedded to the Washington Consensus prescriptions and the revolt of notable insiders such as Joseph Stiglitz, Gore announced an Asian developmental model, updated to the 'age of global money'.

Financial globalization is alive and well, and sets the particular context in which 'international development' is pursued in the 21 st century. As Lord Stern, of the influential G20 Eminent Persons Group, put it: 'the challenge of achieving the Sustainable Development Goals (SDG) is in large measure that challenge, of fostering the right kind of sustainable infrastructure', for which, 'you have to have good finance, the right kind of finance, at the right scale, at the right time' 1 . The new development mantra, spelled out in the *Billions to Trillions* agenda, the World Bank's *Maximising Finance for Development*, or the G20 *Infrastructure as an Asset Class*, aims to create investable development projects that can attract global investors and orient their trillions into financing the SDG ambitions.

The Washington Consensus codified what Williamson described as 'belief in fiscal discipline' against 'left-wing believers in Keynesian stimulation via large budget deficits', a perspective that became 'almost an extinct species' in the 1990s.

7.4 The Wall Street Consensus

[See separate similar section based on 2021 -draft at end (Ch28?)]

Gabor Abstract

The Wall Street Consensus is an elaborate effort to reorganize development interventions around partnerships with global finance. The Billions to Trillions agenda, the World Bank's Maximising Finance for Development or the G20's Infrastructure as an Asset Class all call on international development institutions and governments of poor countries to 'escort capital' – institutional investors and the managers of their trillions in assets – into investable development assets. For this, ten policy commandments aim to forge the de-risking state and accelerate the structural transformation of local financial systems towards market-based finance. The state risk- proofs development assets for

institutional investors by taking on its balance sheet: (i) demand risks attached to commodified (social) infrastructure assets, (ii) political risk attached to policies that would threaten profits, such as nationalization, higher minimum wages and climate regulation, (iii) climate risks that may become part of regulatory frameworks; (iv) bond and currency markets risks that complicate investors' exit. The new 'development as derisking' paradigm narrows the scope for a green developmental state that could design a just transition to low-carbon economies.

Gabor Memo

For instance, at the 2017 launch of the Maximising Finance for Development, the World Bank promised global investors $12 trillion in market opportunities that include "transportation, infrastructure, health, welfare, education', minted into bankable/investible projects via public-private partnerships (PPPs). These are long-term contractual arrangements through which the private sector commits to finance, construct and manage public services as long as the state, with multilateral development bank support via blended finance, shares the risks to guarantee payment flows to PPP operators and investors.

This shift in the development agenda can be conceptualized as the Wall Street Consensus, an emerging 'Development as Derisking' paradigm that reframes the (Post) Washington Consensus in the language of the Sustainable Development Goals, and identifies global finance as *the* actor critical to achieving the SDG.

Development as derisking starts with the question 'how to make projects bankable', or how to construct investible development asset classes.

Wall Street Consensus marks a new moment in capitalist accumulation, from what David Harvey termed 'accumulation by dispossession' to *accumulation by de-risking*.

The state building project in the Wall Street Consensus is more ambitious than the Post- Washington Consensus tolerance of the state as corrector of market failures, through regulation and poverty alleviation. The derisking state creates a safety net for the holders of development assets, protecting their profits from demand risks attached to infrastructure assets; from political risks attached to policies that would threaten cash flows, including nationalization, higher minimum wages and, critically, climate regulation; and from bond liquidity and currency risks. These risks are transferred to the balance sheet of the state.

The practice of de-risking goes back to the developmental state, but its politics changed. The developmental state 'de-risked' domestic manufacturing in priority, mainly export, sectors through industrial policies. It was successful where it had the capacity to discipline local capital, to govern market failures through evolving institutional structures and to generate elite support for the developmental state as a political project.

In its modern version, the entrepreneurial state adopts a "mission-oriented" market-shaping approach that shares the risks and returns with highly-

innovative private industries. In contrast, the WSC state de-risks development asset classes for global institutional investors without the embedded autonomy of the developmental state. It lacks an autonomous strategic vision, unless 'more infrastructure' can be described as such, and has fewer tools to discipline global finance.

The WSC downplays the risks of the macro-financial order it seeks to impose. It engineers financial globalization that increases vulnerability to volatile capital flows. In prioritizing market access, the Grand Bargain with private finance protects bondholders from participating in debt renegotiations or debt service suspension that poor and emerging countries require when under they come under the pressure of large shocks such as the COVID19 pandemic or extreme climate events. Perhaps more importantly, it threatens developmental policy space by narrowing the scope for a green developmental state that could design a just transition to low-carbon economies, where the burden of structural change does not disproportionately fall on the poor.

The PPP contracts specifies the distribution of risks between the public and the private sector, while the state's derisking commitments are recorded as contingent liabilities, and do not count as public debt. While PPPs are more expensive than traditional public investment, the illusion of fiscal effectiveness allows governments to circumvent budgetary restrictions, often in the guise of progressive infrastructure policies, as 'affordable housing' PPP projects in Brazil and Colombia suggest. The legal battles to code capital into development asset classes requires the state to take risks from the private sector onto its balance sheet, in a clandestine reorienting of public resources that maintains the ideological commitment to 'fiscal responsibility'.

The WSC state assumes *demand* risk in user-fee based (social) infrastructure and *political risk* that future governments might (re-)nationalize commodified infrastructure or introduce tighter regulations, ranging from labour laws to climate regulations that would affect profitability.

> Uruguay's PPP law, passed by the Mujica government in 2011, caps the total direct and contingent liabilities generated by PPPs for the state to 7% of the previous year's GDP, and fiscal transfers to private operators to 0.5% of previous year's GDP!

The fiscal costs of protecting investors from demand volatility will rise rapidly as extreme climate events accelerate. Indeed, the climate crisis creates political and demand risks that institutional investors need de-risking for.

The turn to private finance as vehicle for sustainable development requires a change in financial structures to accommodate the portfolio glut. It makes shadow banking, understood as the production (via securitization) and financing (via wholesale funding and derivative markets) of tradable securities, the desirable structure for financial systems across the Global South. Indeed, the WSC consolidates several global initiatives to restructure bank-based financial systems into market-based finance or shadow banking, where institutional investors

can easily purchase local bonds (securities), including infrastructure-backed securities, and finance as well as hedge their securities positions via repos and derivative markets. Structural policies shift from developmental states' concern with the productive structure, to the financial system.

Since market-based finance is more systemically vulnerable than traditional bank-based systems, the Wall Street Consensus assigns a triple de-risking role to central banks: in bond markets and currency markets as market-makers of last resort, and, forced by the inevitable consequences of green washing, as climate rescuers of last resort, for assets left devalued by extreme climate events.

Gabor (2022) The Wall Street Consensus (pdf)

7.4.1 Namibia Case

Gabor and Sylla

Structural changes towards market-based finance, accelerated by US-led financial globalization, manifest as a glut of institutional capital — trillions of US dollars amassed through the shift from welfare state to asset-based welfare and expanded through aggressive leverage in shadow banking — that constantly seeks new asset classes to generate yield.

This establishes an institutional hierarchy whereby central banks target inflation under full capital mobility, without coordination with fiscal authorities and under the systemic vulnerabilities triggered by growing insertion in the global financial cycle. Within that borderland local (political) agency find space to shape the specific architecture of derisking interventions in place across distinctive polities.

The notion of the derisking state describes and theorizes the distinctive mutations in economic statecraft oriented towards the production of investibility.

The derisking bloc organized around SDG Namibia One mostly in- volves extraverted domestic investors, 17 foreign investors and concessional lenders, an 'industrialization by invitation' approach all too familiar to post- independence African states racing to the bottom to attract foreign capital. This leaves the derisking state in a weak position to discipline the foreign beneficiaries of its interventions, or indeed to promote national champions that could compete with foreign investors. Derisking-based industrial part- nerships surrender the pace and ultimate agency of structural transformation to private (mostly foreign institutional) capital.

Equally important, this vision of derisking partnerships downplays Mkandawire's analysis of the structural component of the developmental state: the need to build institutional and technocratic capacity to design long-term economic transformation and enforce the participation of private capital in it. Global North initiatives to skill a small labour force for the green hydrogen economy aside, the very logic of relying on PPPs to develop a hydrogen

industry is predicated on the assumption that the government does not need the expertise of highly capable industrial tech- nocrats. Africa may end up exporting hydrogen commodities vul- nerable to price volatility and neocolonial extractivism rather than green hydrogen technology.

African countries should abandon industrialization-by-derisking and instead experiment with new forms of green public ownership in hydrogen infrastructure and in- dustry while setting up institutions capable of disciplining local green in- dustrial winners. It should revisit the history of successful industrial policy that subsidized credit via state-owned banks, guaranteed demand via pub- lic procurement, promoted exports via subsidies and competitive exchange rates. To finance this, it first has to channel (some of) its share of green hydrogen revenues for the imports of green technologies. Second, it has to overtly reject the WSC insistence that the race to green industrialization is not a macroeconomic question, that it can be achieved without a change in the macrofinancial regime. Rather, the green developmental state must re- order its macro institutions to set the foundations for a closer relationship between fiscal authorities, industrial authorities and the central bank, neces- sary for the strategic coordination of state-led green industrialization.

Gabor and Sylla (2023) Derisking Developmentalism: A Tale of Green Hydrogen (pdf)

7.5 Critical Macro-Finance (CMF)

Gabor

Critical macro-finance opens up new avenues for exploring the political economy of liquid asset production in market-based finance. It stresses that such liquidity practices, re-ordering interconnected and hierarchical balance sheets, generate new types of money and systemic liabilities. It also focuses analytical attention on the ensuing ideational struggles and structural pressures to reorient macroeconomic regimes towards a derisking state.

> US-led financial capitalism has evolved around market-based finance, anchored in changing practices for producing liquidity
>
> Global finance is organized on interconnected, hierarchical balance sheets, increasingly subject to time-critical liquidity
>
> Credit creation in global market-based finance requires new forms of money.
>
> Market-based finance requires a derisking state, for systemic liabilities and new asset classes.

CMF follows Minsky (1957) in scrutinizing financial markets for evolutionary changes in liquidity structures. These changes render monetary policy less effective or constrain fiscal policy through the collateral function of sovereign debt,

while simultaneously sowing the seeds of endogenously fragile finance. CMF thus points to evolving liquidity regimes, from the imperative of the repo-liquid sovereign of the 1990s, to resilient systemic liquidity through the sovereign safe asset of the 2000s, to the rise of Exchange Traded Funds (ETFs) in the 2010s and, most recently, of green finance in the 2020s. These regimes are typically pioneered in the US then 'exported' to the rest of the global dollar system.

The battle of ideas behind the rise of 'liquid' market-based finance in the 1980s and 1990s is less studied, perhaps because the political language of low interest rates required by the Big Keynesian State morphed into the (obscure) technical macro-financial language of liquidity.

Repos is a crucial liquidity innovation for sovereign bond markets in macro-regimes no longer organized by Keynesian institutional logics: governments that had lost access to their central banks could instead turn to repo markets to ensure liquidity for their sovereign debt.

The co-evolution of repo-based finance and fiscal policy ushered in the age of market liquidity, the quest for securities that could be instantly converted into cash without changes in price, and for monetary relationships built on liquid securities collateral.

CMF enables us to flesh out the political economy of evolving liquidity practices in three areas: the mechanics of financial crises, the sovereign bond/safe asset basis for structural power, and the production of new (non-dollar) asset classes.

Crises in market-based finance play out through the plumbing. The repo plumbing accommodates mark-to-market balance sheets, feeding cycles of liquidity and leverage. Lehman's collapse made visible the explosive nature of these cycles, triggering runs on the repo market through liquidity spirals.

CMF approaches crisis management as a form of political struggle over institutional changes necessary to stabilize the plumbing of market-based finance. It focuses analytical attention on systemic mutations in the plumbing, from repos to ETF shares built on bond/equity collateral baskets.

Market-based finance hardwires the imperative of the liquid sovereign politically and structurally in the functioning of the (global) financial system.

European finance in the 1960s and 70s was the rise of the Eurodollar markets, then the story of the 1990s was the Americanization of national financial systems – the adoption of US repo-sovereign liquidity structures.

Paradoxically, the collapse of Long-Term Capital Management, the first systemic failure of a repo financier since the Great Depression, accelerated the global push for Americanized financial systems. Central banks advised that anchoring sovereign bond markets in liberalized repo markets would produce safe assets for market-based finance. But the global financial crisis revealed that the repo/sovereign nexus is not a guarantee of safety for sovereigns.

The export of the American model of financial capitalism reflects the growing demand for new asset classes, including liquid non-US debt. This qualifies the IPE emphasis on (euro)dollar assets. While these assets remain systemically important, the search for new asset classes to fill growing balance sheets is a broader phenomenon. Temporarily slowed by the countervailing monetary power of emerging countries in a post-crisis context, the Americanization of domestic finance has returned through several global projects, from the G20's *Local Currency Bond Market Initiative* to the World Bank's *Maximizing Finance for Development*. These initiatives call for replicating US liquidity structures and replacing dollar debt with liquid local asset classes – from 'SDG development' bonds to ETFs and green bonds – that can attract the trillions of dollars held by global institutional investors. A CMF lens therefore opens up several crucial questions. For example, what are the implications of organizing development interventions around market-based finance? And how should we understand domestic resistance to the Americanization of national finance in countries – such as China – that are embracing market- based finance in a world of interconnected, hierarchical balance sheets?

Market-based finance entangles assets and liabilities in novel ways.

Take repos. (Shadow) banks finance securities positions by creating repo deposits that are collateralized by those very securities. When collateral price increases, the ensuing margin calls return assets or cash to the (shadow) bank, enabling more leverage. The macro-financial novelty of debt relationships forged via collateral-intensive balance sheets rests in the fragile mechanics of leverage tying assets and liabilities.

In the age of global market-based finance, hierarchies are changing. Capitalism has a distinctive logic of temporalization that can be traced back to how balance sheets codify time. Agents 'temporally transform' assets and liabilities, manipulating their time horizons.

Market-based finance shrinks monetary time, as collateral is subjected to the pressures of time-critical liquidity, whereby "a settlement payment, delivery of securities, or transfer of collateral must be made at a particular location, in a particular currency (or securities issue), and in a precise timeframe measured not in days, but in hours or even minutes". Time-critical liquidity renders not only central banks, but also CCPs (Central Clearing Counterparties) and tri-party repo agents, as systemic nodal points in networks of interconnected balance sheets.

Structural power in global finance is anchored institutionally. The Americanization of global finance, which allows the US to sell dollar debt, was accelerated by Volcker's turn to monetarism and financial innovation focused on developing liquid securities markets.

The financialized (carry-trade) practices of banks, households, and (financial) firms in non-US financial systems increase dependency on US dollar funding conditions.

Evolutionary changes in liquidity structures render monetary policy less effective or constrain fiscal policy through the collateral function of sovereign debt.

CMF thus points to evolving liquidity regimes, from the imperative of the repo-liquid sovereign of the 1990s, to resilient systemic liquidity through the sovereign safe asset of the 2000s, to the rise of Exchange Traded Funds (ETFs) in the 2010s and, most recently, of green finance in the 2020s.

Credit creation in market-based finance is structurally different to credit creation in bank- based finance. Relationship banks create deposit liabilities to finance traditional loan assets, and these deposits acquire moneyness – ready convertibility into cash at par – through a social contract with the state. In collateral-based finance, money begins where bank deposits end. (Shadow) banks find new ways to monetize credit and escape the constraints of state-backed money.

What renders repo liabilities 'money' is not their ability to settle debts (you cannot – yet – buy a burger with repos) but their ability to store value at par, that is, to credibly promise par convertibility between repo deposits and state-backed money through collateral valuation.

> When bank A extends credit to a corporation via securities markets, it buys securities issued by the corporation and creates a deposit against these securities. The corporation uses the deposit to pay for capital assets, and that deposit eventually ends up as an asset of a pension fund with Bank A. Bank A destroys the deposit by swapping it into a repo with the pension fund, a repo collateralised by the securities issued by the corporation. **The alchemy of banking** does not merely reside in a swap of IOUs, as in the money view, but in creating new IOUs by destroying ones higher in the hierarchy of money. The bank finances credit creation via securities markets with repo deposits, and the pension fund keeps its 'cash' in a repo deposit that it views as a safer asset than a bank deposit.

Traditional measures of money no longer capture adequately either monetary or credit activity. Banks' endogenous creation of repo deposits destroys bank deposits. Collateral derives monetary power from the entanglement between assets (bonds) and liabilities (repo deposits secured by bond collateral).

FX swaps are functionally equivalent to repos, but accounting rules obscure that equivalence. Financial institutions record repos but not FX swaps on balance sheets, except for mark-to-market variation from exchange rate movements. Thus, large volumes of Eurodollars go missing from the balance sheets of financial institutions outside the US. This missing debt doubles non-banks' global dollar debt at USD 21 trillion.

Evolving liquidity regimes and practices for creating money and credit on globally interconnected, hierarchical balance sheets structurally require the state to derisk systemic liabilities during bad times, and to enable the creation of new

asset classes during good times - *A state that derisks collateral, exchange rates, and new asset classes.*

The most notable post-Lehman institutional change is the rise of central banks as market-makers of last resort (MMLR) for a set of collateral securities. By promising to safeguard the market liquidity of securities and putting a floor on their price, MMLR derisks collateral into safe assets, preserving the monetary power that collateral confers on repos. It also protects the valuation power that collateral acquired post-Lehman through its prominent role in derivative pricing.

MMLR complicates the institutional and ideational politics of 'independent' central banks. The entanglement between central banks as (reluctant) deriskers of collateral and the public/private issuers of collateral securities plays out as a complex political struggle in polities averse to central bank interventions in sovereign debt markets, like the Eurozone.

Take the climate crisis. An increasingly powerful narrative calls on the state to derisk new green asset classes under rules defined by global finance. This status-quo solution preserves the political order of financial capitalism, including its ideological aversion to green public investment under a Green New Deal framework, the 'independence' of central banks, and the political power of carbon financiers. It thereby creates the conditions for systemic and subsidized greenwashing.

Gabor (2020) Critical macro-finance: A theoretical lens (pdf)

8

Money

> Money is the alienated essence of man's labour and life; and this alien essence dominates him as he worships it. (Karl Marx)

9

Regulation

9.1 Bailouts

Tooze on SVB Bailout

The crucial point is that an ecosystem of depositors was saved. And SVB's depositors were in no regular sense, depositors. They are badly run and ill-advised businesses that for obscure reasons parked huge cash balances in a highly vulnerable bank. As Matt Klein remarks in his brilliant post at Overshoot the real problem at SVB was that its depositor was base was so "low quality" i.e. extremely prone to run with influence exerted by a small group of VC advisors. This was not so much classic large-scale bank in which mass psychology played its part on a grand scale, as a bitchy high-school playground in which the cool thing to do was to bank with SVB until it no longer was.

One could refer to the theory of financial dominance, which in the wake of 2008 argued that the Fed would ultimately face insuperable pressure from asset holders to step back from a high interest rate policy that inflicted losses on them.

But what happened over the weekend has a particular quality. On the face of it SVB is not a bank big enough to do systemic damage. That was the prima facie reason for exempting it from the oversight that extends to really big banks. Finance per se will not explain the emergency intervention.

But as should have been obvious all along SVB matters very much indeed, because its depositors are very powerful, very rich and very influential people who own a narrative that makes them indispensable to one vision of America's future.

> The bailout is how modern capitalism deals with investment cycles through the state's intervention. And in doing so, the state assigns

> losses to someone. That's where the politics lie! This dynamic is especially vicious in the United States. As I like to tell my European counterparts, "America does social policy through investment and industrial policy." This means that the US has a very weak welfare state but is not a small state. The American government is very good at stimulating investment and cleaning up the consequences of bubbles. At its best, this makes the American economy extremely innovative and productive and creates many highly paid jobs and employer-provided benefits. However, at its worst, it leads to lost decades and massive inequality…. the tools we developed to do so were constructed in ad-hoc ways in response to lots of crises and learning by doing. Thus, what we don't know how to do as well is to apply these mechanisms in a way that is pre-planned and explicit in how it distributes the downside. This is where my friend Saule Omarova steps in! In her work with Robert Hockett and others, she has noted that the state is vital to the smooth functioning of the private banking system and its support for investment. So, she asks, why not make it official? Instead of an ad hoc bailout of real assets through a private financial system, which tends to be very indirect in its effect, why not have some public entities which can do the work directly? This is most explicit in work Saule, and I did together on a "bailout manager" whose job is to buy out the tangible assets of critical sectors facing bubble dynamics. However, this theme of recognizing the state's enablement of private investment and, thus, the need to have an explicit policy for managing the bailout and fallout of financial capitalism runs through all her work. And this recognition of capitalism's natural and normal functioning and how to make it more efficient apparently makes someone some raging Marxist…

Tooze (2023) Venture dominance? The meaning of the SBV interventions.

9.2 Complexity Theory and Financial Regulation

- Battiston Abstract*

Traditional economic theory could not explain, much less predict, the near collapse of the financial system and its long-lasting effects on the global economy. Since the 2008 crisis, there has been increasing interest in using ideas from complexity theory to make sense of economic and financial markets. Concepts, such as tipping points, networks, contagion, feedback, and resilience have entered the financial and regulatory lexicon, but actual use of complexity models and results remains at an early stage. Recent insights and techniques offer potential for better monitoring and management of highly interconnected economic and

financial systems and, thus, may help anticipate and manage future crises.

Battiston Memo

Recent research on contagion in financial networks has shown that network topology and positions of banks matter; the global financial network may collapse even when individual banks appear safe.

Information asymmetry within a net- work—e.g. where a bank does not know about troubled assets of other banks — can be problematic. The banking network typically displays a core-periphery structure, with a core consisting of a relatively small number of large, densely interconnected banks that are not very diverse in terms of business and risk models. This implies that core banks' defaults tend to be highly correlated. That, in turn, can generate a collective moral hazard problem (i.e., players take on more risk, because others will bear the costs in case of default), as banks recognize that they are likely to be supported by the authorities in situations of distress, the likelihood amplifies their incentives to herd in the first place.

Publicly available bank information does not allow reliable estimation of systemic risk. The estimate would improve greatly if banks publicly reported the number of connections with other banks, even without disclosing their identity.

Too-central-to-fail may be even more important than too-big-to-fail.

Recent experiments studying behavior of a group of individuals in the laboratory show that economic systems may deviate significantly from rational efficient equilibrium at both individual and aggregate levels (14). This generic feature of positive feedback systems leads to persistent deviations of prices from equilibrium and emergence of speculation-driven bubbles and crashes, strongly amplified by coordination on trend-following and herding behavior. There is strong empirical evidence of monetary and fiscal policies and financial regulation designed to weaken positive feed- back are successful in stabilizing experimental macroeconomic systems when properly calibrated. Complexity theory provides mathematical understanding of these effects.

Battiston (2021) (pdf)

9.3 Institutionalizing ESG

Beslik

Suddenly, millions of influential, wealthy and beyond imagination privileged people in the financial and corporate sectors around the world realised that "Oh, this is no good anymore. We need to deploy 'non-financial' metrics to understand the value of companies we invest in and run, from financial point-of-view."

Just like that? Well, maybe not. But I think one of the most relevant answers

to how this has happened does not come from sudden and enormous pressure from clients (they usually don't even know what they are buying on ESG since they lack information) or from a prophetic moment in the morning-mirror for millions of people in the financial and corporate sector asking themselves how they can save the world.

If you try to track down some of the key drivers you can see the traces going back to 2008 when people working in the financial sector and their decisions driven by the only God (money) shook the entire world – and billions of people around the world paid a price, some with their life.

Politicians reacted too late and too lame, and most of the losses were paid for collectively, i.e. tax money. For too long, self-regulation and voluntary, business driven responsibility was championed as most efficient symbiosis for the benefit of all, or very few.

After 2008, politicians might have learned the lesson that self-regulation and voluntary responsibility by the financial and corporate sectors means different things to different actors.

In the climate negotiations in Copenhagen and in Paris (two among the hundreds of conferences on climate change and consequences related to that, that I have participated in over last 20 years) the financial industry was largely absent. It was not there, or just there to observe. Despite its size and influence, despite its power, the financial sector does not have any climate targets discussed and agreed upon on a global level – neither from the COP negotiations, nor via any other transnational agreements.

That's changing now. *It's the regulation in the EU and by now partly in the US that is the key driver behind ESG growth*, both in terms of interest and in terms of assets.

Yes, those grey politicians in the different parts of the world are by all means changing the word of investments by posing rules, sometimes in the need of improvement, yet rules that institutionalise ESG. Not as an add-on, as self-regulated nice-to-have things you can market to clients. But as a law.

This, if anything, is monumental, and in the years to come regulation, nothing else, forced by reality, will completely reshape the social contract between the financial industry and societies at large.

It is both needed and necessary if ESG is meant to make real changes on the ground.

Beslik

10

Shadow Banking

> The sole purpose of shadow banks is to circumvent regulation
>
> *Gabor*

The last four decades have witnessed a transformation of the global financial landscape. Whereas most saving and borrowing once took place through traditional banks — institutions that issue loans and deposits on their books — today, those functions are migrating toward a set of markets collectively known as "shadow banking." The 2008 crisis was, above all, the first systemic crisis of this new financial landscape.

In place of ordinary loans and deposits, shadow banks use securities transactions of various kinds. In this world, traditional bank loans are sliced up into more liquid securities for sale to institutional investors, a process known as securitization. And instead of financing their activities using retail deposits, shadow banking institutions turn to a vast yet arcane part of the money market known as repurchase agreements, or repo.

The shadow banking revolution has been fostered and sustained by the visible hand of the state, which is now angling to extend it to every corner of the developing world. With its vast potential for instability and profiteering, shadow banking is an obstacle to any progressive economic policy, yet it has entrenched itself deeply in the day-to-day workings of the economy.

The global financial crisis now seems a blip in the unstoppable rise of finance. Shadow banking is far larger than it was ten years ago, even though everyone after Lehman Brothers' collapse believed that shadow banking needed to be properly regulated. Policymakers are again portraying finance as the solution to pressing social and economic problems.

The World Bank's new Maximizing Finance for Development (MFD) agenda recasts shadow banking as the solution to developmental challenges.

The resurgence of shadow banking should be understood through the lens of financial capitalism, or financial globalization. This involves the continuous search for new tradable asset classes, created through shadow or traditional banking, and the preservation of their value to facilitate financial profits. Financial capitalism increasingly orients the (shadow) banker toward profits made from daily changes in the price of securities and commodities, whether held directly or via derivatives or exchange-traded funds, and all typically financed through wholesale money markets.

That shadow banking is back with a vengeance is the result of three related processes: a sensationalized narrative of the global financial crisis that downplays its structural roots in financial capitalism; a politics of austerity driven by central banks' dislike of the institutional changes necessary to stabilize financial capitalism; and deliberate strategies to reengineer financial systems in developing countries to avoid the political struggles necessary to reverse the rise of financial capitalism.

Securitization and repos (repurchase agreements) are the two markets that lie at the core of shadow banking.

Lehman aggressively pursed profits with a business model rooted in shadow banking: packaging and securitizing mortgages to issue tradable securities, storing these on its balance sheet as a bet on rising house prices, and then borrowing money in repo markets by using those same illiquid securities as collateral.

The rise of shadow banking was not a post–Bretton Woods accident, but a structural shift towards financial systems increasingly organized around securities, derivatives, and repo markets, underpinned by growing levels of household debt, all in the shadow of the dollar. Authorities in high-income countries actively encouraged this shift.

Regulators first embraced shadow banking as the necessary infrastructure of the new, anti-Keynesian macroeconomic order of the 1980s and '90s, in which governments had to finance themselves through securities markets, rather than subservient central banks, while competing with each other for investors.

Shadow banking offered individuals market-based protection via pension funds, insurance companies, or securitizable housing, and it offered elites vehicles to invest their wealth. It also churned out safe assets that global institutional investors — pension funds, insurance companies, money market funds, or multinational corporations — were required to hold, plus the risky assets demanded by European banks hungering for yield, as well as leveraged funds often acting on behalf of institutional investors.

When the United States failed to keep up with the demand for safe US government debt, the Federal Reserve reacted quickly. It spearheaded initiatives to make it easier for investment banks like Lehman to raise finance using mortgage-backed securities, as an alternative to US Treasuries, in repo markets. If the Treasury would not provide "safe" assets, then Lehman would produce them,

with a little help from the Fed. Central banks' support for financial capitalism had been unscathed by the earlier collapse, in 1998, of the hedge fund Long-Term Capital Management (LTCM). Its largest lenders agreed to finance the firm's orderly unwinding, worried that a disordered collapse of LTCM would trigger fire-sales of collateral securities that would, in turn, affect their own repo financing. This private bailout created a false sense of confidence for both financiers and central banks. Central banks agreed that self-imposed market discipline and more sovereign bonds to act as safe collateral assets would be enough. It is one of the paradoxes of financial capitalism that central banks call for less public debt when talking about monetary policy, and for more public debt when considering financial stability.

The new, postcrisis Basel III rules on liquidity and leverage targeted global banks' systemic footprints in shadow markets. The newly created, international Financial Stability Board focused on shadow banks and shadow markets (securitization and repo markets). The European Commission, prompted by Germany and France, proposed a financial transaction tax (FTT), that is, a "Tobin tax" for financial capitalism that directly targeted intra-financial securities trading and financing via repos and derivative markets.

There is a powerful contradiction at the core of the macroeconomic architecture underpinning financial capitalism: neither central banks nor elected politicians have institutional incentives to pursue the structural change that would reverse the rise of shadow banking.

Public debt is "vital to the functioning of the financial system, analogous to the function of money in the real economy," stressed the ECB's Benoît Cœuré in a 2016 speech on safe assets. But if sovereign debt represents money for the (securities) market-based financial system, that means the safe assets issued by treasuries (government bonds) are as important for financial capitalism as the safe assets issued by central banks.

If the central bank is mandated to defend financial stability, then the rise of shadow banking structurally requires that mandate to include defending the safe-asset status of government debt — that is, protecting governments from volatility in sovereign bond markets, even if it means printing money to do so. This is an unpalatable conclusion. **It questions the theoretical basis for central-bank independence**, as well as the entire edifice of modern macroeconomics, which views fiscal policy as an obstacle to optimal monetary policy and economic stability in general.

Central banks are outposts of private finance in the state. As outposts of shadow banking in the state, central banks can now discretionarily inject liquidity into private securities markets to arrest their fall in price, thus protecting (shadow) banks' profits and access to secured financing. Arguably more important, central banks have instituted a discretionary regime for intervening in sovereign bond markets (qe, the ECB's Outright Monetary Transactions, and market-maker-of-last-resort operations) that tacitly recognizes the fundamental role these markets

play as safe havens for fragile finance.

By burying these measures in a sea of acronyms removed from public debate, central banks effectively protected the powerful position that financial capitalism has conferred on them through the discourse of central-bank independence.

In abandoning efforts to reverse shadow banking, states took the global finance space from a handful of global banks and handed it to a handful of global asset managers. This new systemic breed of shadow banks has grown rapidly, from $60 trillion in 2007 to $85 trillion in 2016, with around 80 percent held on the accounts of institutional and retail investors in Europe and North America. China's rapidly growing asset-management sector will accelerate this trend, without challenging the dominance of the Big Three (BlackRock, Vanguard, and State Street), which own corporate America on behalf of retail and institutional investors. Their next target: poor and middle-income countries. Poor countries should aim for the trillions institutional investors and asset managers have available for "impact investment." For poor countries to access global institutional investors, they would need to reengineer their financial systems around securities markets on the terms of those investors, a Trojan horse for shadow banking and financial globalization. On its 2017 launch, the World Bank euphemistically termed this strategy "Maximizing Finance for Development" (MFD). Everything can become an asset class, as development is recast as an exercise in the privatization of public services to generate returns for global finance.

The World Bank explains the process — formally termed the Cascade Approach — for turning everything into an asset class. The Cascade Approach offers a sequence of steps to diagnose why global investors are reluctant to finance development projects: first, identify reforms (regulatory or other policies) that improve the risk-return profile; if reforms are insufficient, then identify subsidies and guarantees to de-risk the project; if reforms, subsidies, and guarantees are still not enough, then opt for a fully public solution. This is a blueprint for promoting shadow markets in which bankable projects can be transformed into liquid securities ready for global institutional investors. The MFD agenda envisages creating three new markets where they are currently missing: derivative, repo, and securitization markets.

Gabor (2018) Why Shadow Banking Is Bigger Than Ever

Tankus

there are a wide set of institutions which manage literally trillions of dollars of assets. Just like you or I do, these institutions have to hold a certain amount of their funds in "cash", in order to manage their investments and meet outflows. Deposit insurance caps are a problem for this wider network of institutions, because these caps are sized relative to most household "cash balance needs". By contrast, they are almost laughably tiny compared to the monetary needs of these institutions. This "mismatch" is a gigantic problem. What the financial services part of the financial system ecosystem did (and does) is create new

financial products in an attempt to solve these problems- for a fee. In short, they invented new types of "money".

Zoltan's paper zooms in on this phenomenon. Before Zoltan's work there were large discussions of the "shadow banking system", but they tended to focus on the incentives that financial institutions had to create "shadow money" in order to hold (seemingly) high yielding assets. Pozsar's work flips this perspective. Instead he asks, why is there such a large and deep customer base for shadow money? The answer he provides is- deposit insurance caps. It's worth quoting Pozsar at length here:

`As the limits of slicing and spreading growing institutional cash pools in fixed, insured increme`

(i) holding uninsured deposits and becoming uninsured, unsecured creditors to banks, or

(ii) investing in insured deposit alternatives—that is, safe, short-term and liquid instruments—such as short-term

(ii/a) government guaranteed instruments or

(ii/b) a range of privately guaranteed instruments (secured instruments and money funds) issued by the so-called "shadow" banking system.

With only a limited appetite for direct, unsecured exposures to banks through uninsured deposits, however, institutional cash pools opted for the second set of alternatives. Relative to the aggregate volume of institutional cash pools, however, there was an insufficient supply of short-term government-guaranteed instruments to serve as insured deposit alternatives [...[With a shortage of short-term government-guaranteed instruments, institutional cash pools next gravitated—almost by default—toward the other alternative of privately guaranteed instruments

I will return to the issue of "insufficient supply of short-term government-guaranteed instruments" in another piece. For today, what matters is that the key element of uninsured deposits is that they are "unsecured" i.e. not collateralized. This has two issues. 1) you're less protected against loss because you're exposed to all of a bank's potential losses, rather than simply the value of one asset (the collateral). 2) Worse, you have the threat of illiquidity. Even if you will ultimately be paid back, the time it takes the FDIC to fully dispose of the bank's assets can potentially be quite long. In the meantime, you have a "receivership certificate" which, to say the least, is not an attractive asset to hold. The attractive feature of secured claims- that is collateralized IOUs- is that in case of default you can sell the collateral- and typically quite quickly. Even the extreme case of taking the exact same loss with shadow money that you would have with uninsured deposits favors shadow money because you realize the loss quickly and have liquid funds on hand rather than an illiquid claim that will take- at the very least- months to resolve itself. At least, in theory

Which leads to the negative consequences part. This search for collateralized shadow monies to replace uncollateralized uninsured deposits is not some harmless, costless process. Indeed the very term shadow banking was coined by Paul McCulley in 2007 to describe a set of "non-bank" financial institutions which ultimately themselves experienced a run… A "shadow bank run", if you will. Recall that the thing that makes today's shadow money valuable is that "even" in the case of default, and you can sell the underlying collateral quickly and easily. In other words, the collateral is safe and liquid. Just as losses (whether unrealized or realized) can cause a run by uninsured depositors, potential losses can cause a run by shadow money holders. Remember 2007 and 2008? Remember a little instrument called a Mortgage-Backed Security? It should not surprise you to learn that these were one of the key forms of safe collateral which "collateralized" shadow money. Oops!

That there was a "shadow" bank run is one of the less discussed elements of the financial crisis in popular culture but to those of us obsessed with the structure of the financial system, it's a key element of the whole episode. It's also important to understand that while loss fears triggered these runs, the key deadly element was the collapse of **liquidity**. Ultimately, the highest rated private mortgage backed securities (AAA) were the principal taken-as-safe collateral for these shadow monies. AAA MBS securities ultimately took only a couple percentage points of losses on average. Remember that, as I explained at length in 2020, Collateralized Debt Obligations (CDOs) are a different instrument entirely.

The point is that ultimately, even the extreme and fraudulent activities which emerged during the 2000s housing boom were not enough to create losses in the safest portion (or tranche) of Mortgage Backed Securities. In this sense, the financial engineering **actually worked**. The problem was all the financial byproducts (the lower- especially the lowest- tranches) and the inappropriate further use of these financial engineering tools.

Where the financial engineering completely failed is in creating an asset that truly had the liquidity of government securities. The losses may have ultimately been small, but there was no way to know that in the moment. That fear made these assets illiquid.

You might even remember the terminology that emerged at the time to describe this: toxic assets. What the public did not understand at the time is that while fear of losses may have made them toxic, the real issue of toxicity was "liquidity". The shadow banking system had collapsed as a result of runs which meant the multi-trillion dollar system which financed them no longer existed. The only possible solution was the chartered banking system directly financing the holding of AAA mortgage-backed securities (which it was in no position to do) or else the government stepping in. The money creation process which generated liquidity in these securities markets collapsed and only government balance sheets- i.e. government money creation- could fill the void.

The larger issue Zoltan Pozsar is highlighting in this paper is that when you look

beyond narrow measures of "the money supply", deposit insurance is providing less and less protection as these financial net worth pools grow and grow. He says this outright in the paper:

> Indeed, if institutional cash pools continue to rely on banks as their credit and liquidity put providers of last resort, the secular rise of uninsured institutional cash pools relative to the size of insured deposits is going to make the U.S. financial system increasingly run-prone, not unlike it used to be prior to the creation of the Federal Reserve and the FDIC. Put another way, the secular rise of cash pools reduces the effectiveness of deposit insurance in promoting system-stability, if depository institutions are wired to serve as insurers of last resort for the world's uninsured dollar liquidity

In some fundamental sense, institutional investors want collateral because they don't want to do careful credit monitoring.

The dream of "market discipline" crashes against a wave of financial engineering in the real world.

Leaning completely on collateral is the opposite of careful monitoring of balance sheets.

The latest innovation in shadow money- "cash sweep" programs. These programs, which I discussed two weeks ago, use financial technology to take your large uninsured deposit and break it up into literally hundreds of insured deposits at various banks. If every uninsured depositor used cash sweep type programs, then there would be no "market discipline" i.e. uninsured depositors monitoring bank balance sheets. This would be functionally the same as uncapped deposit insurance, except formally uninsured depositors would pay a fee for that service upfront.

These "brokered deposits" products essentially transform uninsured deposits into shadow monies. These shadow monies simply have the unique feature that they emerge from within the banking subsidiary, and the collateral is insured deposits themselves.

This is a kind of reductio ad absurdum of shadow money which shows that shying away from eliminating deposit insurance won't provide "liability side discipline", it will just generate more shadow banking system instability. At best, these "cash sweep" innovations (and other similar devices) will effectively create a consumer unfriendly version of unlimited deposit insurance. The difference will be that the pressure for corresponding asset side regulation will dissipate in a fog of complexity. Rip the bandaid off, eliminate the cap on deposit insurance and let's have the real policy debate.

Tankus (2023) The Night They Reread Pozsar (in his absence)

11

Banking

Roberts

Martin Wolf in the FT makes the point that bank crashes are inevitable and cannot be avoided. *"Banks are designed to fail. Governments want them to be both safe places for the public to keep their money and profit-seeking takers of risk. They are at one and the same time regulated utilities and risk-taking enterprises. The incentives for management incline them towards risk-taking, just as the incentives for states incline them towards saving the utility when risk-taking blows it up. The result is costly instability."*

That's nice to know! Marx explained it better. Capitalism is a money or monetary economy. Under capitalism, production is not for direct consumption at the point of use. Production of commodities is for sale on a market to be exchanged for money. And money is necessary to purchase commodities. But money and commodities are not the same thing, so the circulation of money and commodities is inherently subject to breakdown. It is a fallacy (contrary to Say's law) that the production of commodities guarantees equal demand for their purchase. At any time, the holders of cash may decide not to purchase commodities at going prices and instead 'hoard' the cash. Then those selling commodities must cut prices or even go bust: *"with the commodity splitting into commodity and money, and the value of a commodity becoming independent in the form of money, the direct exchange of products divides into the processes of sale and purchase, which are internally mutually dependent and externally mutually independent. And here is posited, at the same time, the most general and most abstract possibility of crisis."* Many things can trigger this breakdown in the exchange of money and commodities, or money for financial assets like bonds or stocks ('fictitious capital', Marx called it). And it can happen suddenly.

So what to do? The first solution offered is to let the market prevail. Banks that get into trouble and can't pay their depositors and creditors must be allowed to fail, to be liquidated. That solution gets little support from governments which

fear the political backlash and from economists who fear that liquidation would lead to outright slump and depression as in the 1930s.

So the fall-back solution is more and stricter 'regulation'. Regulation could take many forms. The usual one is making banks hold more equity capital relative to their lending and investments; another is to reduce the amount of borrowing they do to invest speculatively. So there is a great paraphernalia of banking rules, the latest of which is the Basel 3, brought in after the global financial crash of 2008.

Deregulation turned the modern banking system into a series of giant 'hedge fund' managers speculating on financial assets or acting as conduits for tax avoidance havens for the top 1% and the multi-nationals. It may be true that international banks are better capitalised and less leveraged with bad debts after the gradual implementation of the Basel III capital and liquidity accords and the widespread adoption of 'stress testing', but even that can be disputed. As IMF admits: "in many countries, systemic risks associated with new forms of shadow banking and market-based finance outside the prudential regulatory perimeter, such as asset managers, may be accumulating and could lead to renewed spillover effects on banks".

Generally, the left seems unable to come up with any solution except more regulation. Take liberal economist, Joseph Stiglitz. At the time of the Global Financial Crash, he proposed that future meltdowns could be prevented by empowering 'incorruptible regulators', who are smart enough to do the right thing."[E]ffective regulation requires regulators who believe in it," he wrote. "They should be chosen from among those who might be hurt by a failure of regulation, not from those who benefit from it." Where can these impartial advisors be found? His answer: "Unions, nongovernmental organizations (NGOs), and universities."

But all the regulatory agencies that failed in 2008 and are failing now were well staffed with economists boasting credentials of just this sort, yet they still manage to get things wrong.

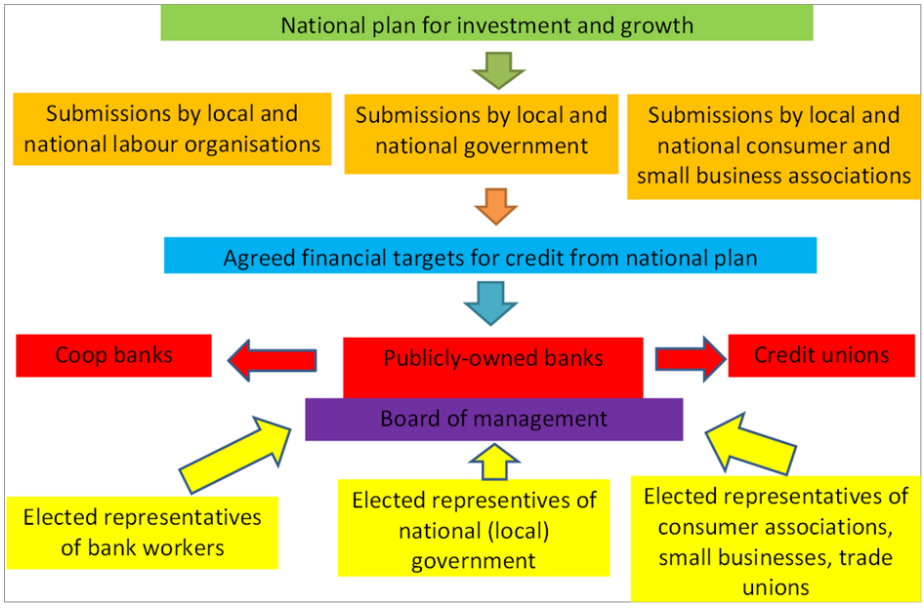
Top regulators seem to believe that an important part of their job is to convince taxpayers that the next crash can be contained within the financial sector and won't be allowed to hurt ordinary citizens in the ways that previous crises have." But "these rosy claims are bullshit."

Risks can migrate to new areas.

One other solution offered is the so-called Chicago Plan, which is promoted by Martin Wolf and some leftist post-Keynesians. Originally this was an idea of a group of economists at the University of Chicago in the 1930s who responded to the Depression by arguing for severing the link of the commercial banks between the supply of credit to the private sector and creation of money. Private banks would lose the power to create deposits by making loans, as all deposits would have to be backed by public sector debt or by bank profits. In effect, lending would be controlled directly by government. "The control of credit growth

would become much more straightforward because banks would no longer be able, as they are today, to generate their own funding, deposits, in the act of lending, an extraordinary privilege that is not enjoyed by any other type of business," says an IMF paper on the plan. "Rather, banks would become what many erroneously believe them to be today, pure intermediaries that depend on obtaining outside funding before being able to lend." And that outside funding would be the government. The banks would still be privately owned, but could not lend. Ironically, to exist they would have to turn into outright speculative investment operations like hedge funds to make a profit. That could create even more instability in the banking system than before. The Chicago Plan would only work if the banks were brought into public ownership and made part of an overall funding and investment plan. But if that happened, there would be no need for a Chicago Plan.

What is never put forward is to turn modern banking into a public service just like health, education, transport etc. If banks were a public service, they could hold the deposits of households and companies and then lend them out for investment in industry and services or even to the government. It would be like a national credit club. We could then make a state-owned banking system democratic and accountable to the public. That means directly elected boards, salary caps for top managers, and also local participation. Way back in 2012, I presented such an idea to the Institute of Labour Studies in Slovenia, as structured below.



Roberts (2023) Bank busts and regulation

11.1 J.P.Morgan

Tooze

The ongoing banking crisis is tied to industrial policy-tech competition by way of concerns for regional business financing and considerations about the structure of the financial system itself. Should the biggest banks be allowed to dominate? What impact might that have on tech and industrial financing? This is the key concern of folks like Robert Hockett and it is rooted in deep American themes:

> For much of its history, the US by law kept its banks local and sector-specific. The Founders had known first-hand the evils of concentrated metropolitan banking — ignorance of local borrowers and economic conditions, focus on short-term profits rather than long-term investments, and related problems. … Regional, community and sector-specific industrial banks like Silicon Valley Bank lent "patient capital" to startups and small businesses — the incubators of future industrial renewal. In other words, the banks were willing to wait years before expecting their startup borrowers to turn profits — essential in industries that require time to scale up before they can become profitable.
>
> They stood ready to fuel the new growth where it was needed, knowing as they did both the special needs of their clients in particular sectors — like tech, for example — and economic conditions in the locales where their clients did business.
>
> Capped deposit insurance is now destroying these banks.
>
> Federal deposit insurance coverage is currently limited to $250,000. That would be plenty for you and me, but the startups and other small businesses on which our industrial recovery depends have large payrolls and weekly operating expenses. For them, $250,000 is mere chump change.
>
> They are thus faced with a Hobson's choice, especially in times of banking distress like the present: Retain the advantages of regionally focused, client-sensitive, sector-specific Main Street banking at risk of losing deposits in bank runs, or flee to the safety of too-big-to-fail, one-size-fits-all global Wall Street banks that know nothing of their regions' or businesses' special conditions or needs.

JP Morgan features in this story as the universal bank predator. It is also, of course, the most enthusiastic funder of fossil capital, as the Union of Concerned Scientists documents here. Between the Paris climate deal and the end of 2021 JP Morgan provided $ 382 billion in fossil funding.

JP Morgan's data serve as key indicators of the state of the Treasury market.

This macroeconomic conversation connects to the banking crisis by way of the

impact of the interest rate shock on the balance sheets of badly managed banks like SVB and First Republic, at which moment JP Morgan enters the story as the White Knight.

What slips through the cracks is JP Morgan's role as a macrofinancial actor of decisive importance and as one of the forces shaping those financial markets.

REPO

Repo is the key to modern market based financial systems. This is the market in which portfolios of assets are funded by "buying" and "selling" them with a commitment to repurchase at intervals as short as overnight. It was the run on repo, not old fashioned bank runs like the ones that we saw at SVB or First Republic, or on Northern Rock in Britain in 2007, that drove the financial crisis of 2008. In a repo run the counterparties to trades that are normally churned every day in volumes of hundreds of billions of dollars, withdraw their funding. This instantly leaves huge portfolios unfunded, triggering defaults and further withdrawals. The collateral, which is the basis for repo, can be seized but the market ceases to function.

As Carolyn Sissoko showed in an important paper, published in the thick of the COVID financial crisis of 2020, the newly merged JP Morgan Chase in the late 1990s and early 2000s was pivotal to the emergence of the repo-based money market.

As Sissoko puts it in admittedly dramatic terms:

> In 1997, notably the year in which the Asian Financial Crisis took place, JPMorgan moved its repo market making 'into the bank,' and then in 2000 became one of the core tri-party clearing banks via a merger with Chase Manhattan Corporation. The end result of this bank intermediation of the repo market was to super-charge it with implicit government guarantees, and to convert JPMorgan Chase (JPMC) into a de facto central bank implementing its own monetary policy through the repo market.

As Sissoko describes the situation in 2008.

> During the height of the boom that preceded the 2007-09 crisis, there is every reason to believe that JPMC had the power to define the repo market both by pricing assets and by setting the terms on repos. Indeed, both Bear Stearns and Lehman Brothers failed when JPMC acting as a clearing bank determined that their assets were no longer adequate to support the debt they were carrying. In short, JPMC created a new role in financial markets, the dealer of last resort, a kind of central bank for securities markets that had the capacity, due to the flexibility of too-big-to-fail capital constraints, to price and fund assets over what appeared to be the long-run. Or at least that's how it appeared until the Bear Stearns failure in 2008.

The key point here is that the growth of JPMC is not simply a corporate success story. And JP Morgan's power is not limited to its ability to profit from its strong balance sheet or its excellent connections in Treasury, Fed and White House, to snap up rivals. The financial markets, as we know them in the US today, are to a significant extent moulded around JPMC's business model and its decisions have macroscopic effects. This is the flipside of Jamie Dimon's posturing as a patriotic servant of financial stability.

Tooze (2023) Chartbook #213 Expanding the fortress: Why JP Morgan is even more important than you think!

11.2 Repo

Tooze

What brought Northern Rock, Bear Stearns and then Lehman down was a collapse in their short-term ultra footloose market-based funding. Specifically what killed Lehman was what Gorton and Metrick called a "run on repo".

Repo is the market, operating between major players in the financial system, through which banks like Lehman financed portfolio of mortgage backed securities and other fixed-income assets. In repo-based banking, funding is obtained not by taking deposits and then investing the funds in interest and profit-yielding assets. Funding is obtained by buying an asset, like a Treasury or a mortgage-backed security and immediately selling it, with the promise to repurchase at some point in the not too distant future, only then to repeat the operation, again and again until the bond matures, or it is disposed of. In the overnight repo market this churn takes place literally every day.

Every day collateral is given, credit is issued and then the original owner redeems the collateral the following day. And this takes place daily on the scale of trillions of dollars.

Clearly, this is spectacularly more elastic, dynamic and labile system than deposit-based banking. A run in this market consists simply in trading parties, who normally show up to sell, buy and repurchase collateral – mainly Treasuries or other fixed-income assets – one day refusing to transact with a particular counterparty.

The "run" on Lehman dwarfs anything we have seen in 2023 in terms of scale and speed.

It was the scale of the market and its structure - a highly volatile system for financing assets of durations measured in years or even decades on ultra-short-term funding - that created the risk.

Not until we see shockwaves rocking the system of market-based funding, as we did in 2007-8 and again in 2020, will 2023 really begin to register on the Richter scale of financial shocks.

it is on the constantly evolving structures of finance and on the suspiciously opaque links in the chain that we should be focusing our attention.

[Tooze (2023) Chartbook #214: Why the 2023 banking crisis does not look like 2008, or why one run is not like another.

12

Central Banks

Central banks are outposts of private finance in the state.

Never ever say the words ‘central banks control the money supply’.

Central banking is more akin to sailing than driving. Whilst it might be tempting to imagine them steering the economy with a reliable accelerator and brake, they are far more at the mercy of the elements. They can tack and trim with a greater or lesser degree of skill, but in the end they can’t change the wind.

Central banking is about providing liquidity for solvent institutions, not about providing capital for insolvent ones. Thus, the capitalisation of asset management companies in any country should preferably be shouldered by the private sector, and if this is not possible, by the fiscal authority. Coeure (2015) ndependence and interdependence in a monetary union

Central banks today are powerless - They’re impotent. This is a shift of power that cannot be underestimated. Our whole economic s
ystem of the past 40 years was built on the assumption that the growth of credit and therefore
broad money in the economy was controlled through the level of interest rates – and that cent
ral banks controlled interest rates. But now, when governments take control of private credit
creation through the banking system by guaranteeing loans, central banks are pushed out of the
ir role. Napier (2022) We Will See the Return of Capital Investment on a Massive Scale

The heart of the matter is that the FOMC believes that the happy

> inflation numbers released this week are largely a statistical mirage; that markets have been fooled by randomness; that ultimately it will take a lot of monetary tightening to achieve price stability. The Fed's vassals in Europe quickly came to the same conclusion — as if they had any choice in the matter. Policytensor (2022) Is the Fed Right or the Market?
>
> Central banks are only as independent as politicians allow them to be, and a nominally "independent" central bank can in practice be significantly coerced by a determined government.

Gabor

Central banks are outposts of private finance in the state. As outposts of shadow banking in the state, central banks can now discretionarily inject liquidity into private securities markets to arrest their fall in price, thus protecting (shadow) banks' profits and access to secured financing. Arguably more important, central banks have instituted a discretionary regime for intervening in sovereign bond markets (qe, the ECB's Outright M onetary Transactions, and market-maker-of-last-resort operations) that tacitly recognize s the fundamental role these markets play as safe havens for fragile finance.

By burying these measures in a sea of acronyms removed from public debate, central banks effectively protected the powerful position that financial capitalism has conferred on them through the discourse of central-bank independence.

Gabor (2018) Why Shadow Banking Is Bigger Than Ever

In managing our economy with disembedded measures of wealth, the world's central bankers are effectively agents of the sustainability crisis. They may not wish to be unsustainable by personal inclination, but they certainly are by professional obligation because of how they are duty-bound to act. An entirely foreseeable response to the climate emergency is that people in wealthier countries may choose to pare back their consumption of non-essentials. Certainly, not everyone has the luxury to do this, but the obvious solution of "buying less stuff" has become an articulated idea in wealthy countries. "Flight shaming" and "consumption shaming" are new memes. Articles in multiple UK newspapers have challenged readers to see if they can go a year without buying any new clothes, contravening the media's normal practice of generally trying to coax the economy along. (It buoys the advertising revenue). Such behaviours would amount to a direct hit on GDP in developed countries, where personal consumption can represent two-thirds of the total. Critically, any such reduction in consumption will likely show up as a deflationary decline in economic activity that the world's central banks are on hair-trigger alert to prevent. The large and powerful financial bureaucracy stands ready to provide immediate stimulus to any perceived flagging of measured economic activity. Hence, the arrangement most populations in the world currently live under is that should they collectively choose to buy less, more money will be printed until they have changed their mind. Effectively, our exhausted ecosystem is gasping for a lull in

measured economic activity that our financial authorities are pledged to never let happen.

Duncan Austin: Pigou and the dropped stitch of economics RWER95 (pdf)

12.1 Monetary Financing

Bateman Abstract

Monetary financing – the issuance of public money to support public expenditure – remains a widespread policy taboo. In this article, we analyze the operational practices of the Bank of England, the Federal Reserve and the European Central Bank (ECB) from the 20th onwards to argue that monetary finance should be understood as a conventional and legitimate part of central banks' core functions. We argue that monetary financing serves a crucial macrofinancial role in the face of large fluctuations in the demand for and supply of government debt, where the central bank acts to stabilize sovereign debt markets. We show that monetary financing has been a stable and pervasive feature of the Bank of England's and the Federal Reserve's operations. Turning to the ECB, we show that by the mid-2000s the view came to dominate the institution that the central bank should allow markets to punish governments for excessive deficits. This view informed the ECB's catastrophic reluctance to act on the 2008 and 2009 Financial Crisis deficits. By 2020 that attitude had once again largely been abandoned.

Bateman Memo

A prominent taboo of modern economic policy is the creation of new money by a central bank to fund public expenditure: 'monetary finance. Mature, stable and successful economies resolutely abstain from monetary finance, while irresponsible politicians and immature nations allow their central banks to monetize public spending. That is the logic which underpins the pro- hibitions on monetary financing which appear in IMF conditionality agreements, World Bank and OECD advice, legal prohibitions in European treaties, and developing countries' constitutions. The same logic pervades the public statements of central bankers in advanced economies and monetary hegemons: explaining the dangers of monetary finance, and why their central banks would never dance with the economic devil.

The 2020 pandemic put that orthodoxy under heavy pressure. In World War I between 85% and 100% of war expenditures were paid for by issuing new money; this is what central banks should do now as well. Central banks dutifully launched enormous government bond purchase programmes, meanwhile explicitly renouncing any suggestion that these programmes constituted an act of debt monetization. Monetary financing, it seemed, had returned as a prominent tool of economic policy in all but name. What are we to make of these contradictory attitudes—often expressed by the very same individuals? Mone-

tary finance should be understood as a conventional and legitimate part of a central bank's core functions.

The predominant monetarist understanding that informs the taboo, its academic justification, and recent defenses of monetary finance, focus on macroeconomic impact: for better or worse, monetary finance is seen to increase public and private expenditure without raising taxes, thereby boosting aggregate demand. Complementing those macroeconomic accounts, we propose a macro-financial account of monetary financing, to which we ascribe an historically (largely) invariant, and under-explored, function: to navigate large fluctuations in the demand for and supply of government debt, thereby acting as a lender of last resort to governments facing 'sovereign-financing-gaps'.

The ECB received its mandate during the heights of academic monetarism, but its legal basis explicitly permits secondary market 'stabilization' operations that can substantially reduce sovereign debt yields and treasury funding costs. As the supranational central bank matured in the 2000s, a more radical view emerged that reflected the monetary finance taboo: the ECB should allow markets to 'punish' governments for excessive deficits. That thinking drove the ECB's refusal to provide the type of market-stabilizing monetary support that was conventional in the US and UK as member states faced record deficits in 2008 and 2009. Thus, the monetary finance taboo became a major driver of the Eurozone Crisis. By 2020, the ECB had explicitly disavowed its adherence to the monetary finance taboo and was openly acting as the lender of last resort to European governments.

Instead of studying monetary financing as a part of macroeconomic demand management, we emphasize its role in reallocating accounting liabilities across the government's consolidated balance sheet, swapping money for debt. Accommodating large issuance of debt in this way serves the role of market making of last resort but also, typically first and foremost, lending of last resort to governments.

Bateman (2023) The dysfunctional taboo: monetary financing at the Bank of England, the Federal Reserve, and the European Central Bank (pdf)

12.2 Macroprudential

Macroprudential policies are financial policies aimed at ensuring the stability of the financial system as a whole to prevent substantial disruptions in credit and other vital financial services necessary for stable economic growth. The stability of the financial system is at greater risk when financial vulnerabilities are high, such as when institutions and investors have high leverage and are overly reliant on uninsured short-term funding, and interconnections are complex and opaque. High vulnerabilities increase the likelihood that a firm's failure or other negative shock would cause distress at other financial institutions because of direct exposures and through fire sales, contagion, or other negative externalities aris-

ing from the initial shock. Macroprudential policies aim to reduce the financial system's sensitivity to shocks by limiting the buildup of financial vulnerabilities.

One example of a macroprudential policy is the higher capital charge applied to Global Systemically Important Banks (G-SIBs), banks that pose more risk to the system. The G-SIB capital surcharge is based on five types of characteristics viewed to increase a bank's systemic risk: size, complexity, interconnectedness, lack of substitutes, and cross-jurisdictional activity. Higher capital charges reduce the likelihood that a G-SIB would fail because they will have thicker capital cushions to absorb losses.

A recent paper looks at how the macro scenarios and assumptions about dividends and share repurchases in the stress tests work to reduce procyclicality of capital requirements.

Macroprudential tools can be structural or cyclical. Structural policies are implemented to build lender or borrower resilience to adverse events at any point in the business cycle. For example, the additional capital charges for G-SIBs are a structural tool. In other countries, limits on loan-to-value ratios (LTVs) or debt service–to–income ratios (DSTIs) for mortgage borrowers are examples of structural tools that have been applied to borrowers. These limits can be macroprudential when they are intended to not only protect an individual borrower from too much debt, but to protect home values in neighborhoods from falling sharply because many borrowers have trouble making their payments at the same time. The Hong Kong Monetary Authority, for example, sets the LTV ratios for borrowers based on the value of the property. Bank borrowers for properties with high values could get mortgages with LTV ratios ranging from 40 percent to 60 percent, while they could get mortgages with higher LTV ratios, up to 70 percent, for properties with low values.

Cyclical policies are aimed at increasing resilience in anticipation of an economic downturn to lessen the reduction in the supply of credit once the downturn materializes. The countercyclical capital buffer (CCyB) is an example of a cyclical policy. The CCyB works by requiring banks to increase their capital cushions during an economic expansion when systemic risks are rising, and then release them in an economic downturn to absorb losses. Reducing the capital constraint by releasing the buffer when the economy slows helps to insure against deleveraging, which if not counteracted could deepen the downturn by restricting credit.

Historically, macroprudential policies have been used more often in emerging market economies than in advanced economies. But since the global financial crisis, both advanced economies and emerging market economies have been using macroprudential measures more frequently.

Brookings

12.3 Central Bank Independence

Haldane Memo

The widespread adoption of central bank independence was born out of the economic situation of the 1970s. The Great Inflation had seen high and persistent inflation across the world and economists turned their attention to the role that monetary policy played in this phenomenon. The time-consistency theory of Kydland and Prescott (1977), Nordhaus (1975) and Barro and Gordon (1983) provided an elegant answer to what might be going on. Governments had a natural tendency to over-inflate their economies, especially around election time, generating an "inflation bias". To curb this inflation bias, some institutional means was needed to constrain government's policy hand. Rogoff (1985) developed a model which provided such an institutional fix. Monetary policy decisions were to be delegated to a "conservative", inflation-minded, central bank acting independently from government. In this way, central bank independence could prevent, at source, a return to the Great Inflation of the 1970s.

The macro-economic benefits, in theory, did not end there. Provided inflation expectations were well-anchored and central banks were not too inflation-averse – "inflation nutters" in the language of Mervyn King – monetary policy could be effective in stabilising output in the economy too. In other words, central bank independence was a potential twin-win, reducing inflation biases at no cost in increased output variability – a free lunch.

Empirical evidence followed to test these hypotheses. During the 1980s and 1990s, a number of papers established a statistically significant link between the level and variability of inflation and the degree of central bank independence across a range of countries. These cross-country correlations strongly suggested central independence was an important contributor to reduced inflation bias (Chart 3) and that it wasn't associated with increased variability in output (Chart 4). The free lunch in theory was there in practice too. And this evidence, in turn, helped spur moves towards central bank independence in the latter-part of the 20th century.

Interestingly, a look at more recent time periods suggests these observed associations have vanished since the start of the 21st century (Charts 5-7). What explains this disappearing correlation? Some have used it to question whether the earlier link between independence and low inflation was no more than a statistical mirage. It could be argued that the fall in inflation over this earlier period was instead the result of the benign macro-economic environment of the Great Moderation. In other words, better inflation outcomes in the late 20th century might have reflected good luck rather than good central bank management.

The time-consistency problem familiar from monetary policy has a clear read-across to the world of financial stability. Governments have an incentive to run their financial systems, as well as their economies, hot in the interests of growth

and electoral advantage. This generates a tendency to loosen regulation too far during credit booms, increasing the risk of future bouts of financial instability. In other words, there is a potential problem of "instability bias" in regulatory policies, to accompany the "inflation bias" in monetary policies.

In fact, I would argue this time-consistency problem is potentially greater in the financial stability sphere than for monetary policy, for two reasons. Credit cycles tend to be longer in duration, and larger in amplitude, than typical business cycles. This means wishful thinking and policy myopia ("this time is different") are more likely to arise in credit booms than during typical business cycle upswings, exaggerating the time-consistency problem of financial stability policies. The costs of financial instabilities and crises also tend to larger than the costs of inflationary surges. This means the temptation to act in a time-inconsistent fashion – talking tough ex-ante, but acting weak ex-post – also tends to be greater. That can encourage risk-taking and amplify financial cycles and crises – a doom loop. The Global Financial Crisis, a long-duration credit boom that prompted massive government support ex-post, was a good example of these acute financial stability time-consistency problems in practice.

Given the practical success of independence, it is important to guard it for the future. And there are potential threats here. Central banks around the world have expanded their balance sheets massively over the past decade, and particularly over the past year. While this is not monetary financing, it has blurred the line between the monetary and fiscal realms and, among some people, raised questions of independence. The test will come if and when inflation begins to rise and central banks need to tighten policy to meet their mandate, independently of the prevailing fiscal stance. At that point, the strength and effectiveness of the legal and institutional frameworks surrounding independence will be crucial in ensuring we continue to benefit from the twin-wins that have been a feature of the last few decades.

Haldane

12.3.1 Market Neutrality

The principle of market neutrality posits that corporate bonds purchased under the ECB's €270bn corporate sector purchase programme should be made in a 'neutral' way: they should reflect the overall eligible market to ensure they do not distort the relative pricing of securities. Given the concentration of carbon-intensive industries in the corporate bond universe, this has resulted in a carbon-biased portfolio. This is problematic as it exposes the ECB to climate-related risks. And yet central bankers have so far been reluctant to question market neutrality for fear of losing their independence.

Kyriakopoulou

Klooster Abstract

Monetary policy operations in corporate security markets confront central banks

with choices that are traditionally perceived to be the prerogative of governments. This article investigates how central bankers legitimise corporate security purchases through a comparative study of the European Central Bank (ECB) and the Swiss National Bank (SNB). As we show, central bankers downplay the novelty of corporate security purchases by relying on familiar pre-crisis justifications of Central Bank Independence. Citing an ideal of 'market neutrality', central banks present corporate security purchases as pursuing a narrow objective of price stability and obfuscate their distributive consequences. In this way, central bankers depoliticise corporate security purchases: they reduce the potential for choice, collective agency, and deliberation concerning both the pursuit of corporate security purchases and the choices made in implementing these policies. We also describe the undesirable democratic, social and environmental dimensions of these practices, which we propose to address through enhanced democratic accountability.

Klooster Memo

The past decades saw central banks acquire considerable independence from democratic institutions (McNamara 2002, Singleton 2010). Governments justified their decision to delegate monetary policy by relying on a narrow conception of monetary policy. This conception focuses on the setting of short term interest rates to achieve a long-term objective of stable price levels. A crucial element in the justification of central bank independence is the idea that monetary policy is an apolitical, technical area of policymaking (Marcussen 2009). The loss of democratic control that results from the creation of an independent central bank was also thought to be minimal, because distributive choices would remain with elected governments, who both decided on the central bank mandate and retained the use of fiscal instruments to achieve their distributive objectives. In this way, governments depoliticised monetary policy in the sense of reducing the potential for choice, collective agency, and deliberation around the use of monetary policy

The Global Financial Crisis (GFC) led central bankers to move far beyond the narrow task assigned to them under the traditional justification of Central Bank Independence (CBI) To rescue a global financial system on the brink of collapse, central bankers assumed new roles as lenders and market makers of last resort.

Central bankers, meanwhile, are openly concerned that the use of unconventional tools threatens their independence. When independent regulatory agencies extend their power, political authorities often seek to regain control. Central bankers, accordingly, try to counteract repoliticisation and these efforts shape their policies.

To investigate the simultaneously occurring processes of politicisation and depoliticisation we investigate how central bankers relate to the political dimensions of their new unconventional policies.

QE increases wealth inequalities.

Central bankers depoliticise their security purchases by subsuming them under the pre-crisis justification of CBI.

Central bankers present themselves as pursuing price stability, while in reality engaging in these purchases for reasons that are entirely unrelated to price stability.

'Market Neutrality'

Rather than acknowledging and managing the market impact of their policies, central bankers pursue 'market neutrality', e.g. they seek to minimise the impact of their purchases on the relative prices of financial assets.

Central bankers keep decisions on new monetary instruments in the domain of their expert judgment, and thereby outside the domain of democratic politics.

As a consequence of their effort to make corporate security purchases market neutral, these programmes are insufficiently sensitive to environmental and societal concerns.

Depoliticisation of monetary policy: First, independent central banks treat monetary policy as having a narrow objective, which can be achieved with a clearly-defined toolbox and, second, central bankers treat distributive consequences as insignificant and sanctioned by the central bank's mandate.

Klooster (2021) The Myth of Market Neutrality (pdf)

The new exogenous money is exogenous transition shocks in the climate change debate. Fortunately, Bank of England cannot hide behind that rock because of their new climate mandate.

Remember, Mark Carney's 'tragedy of the horizons' speech identified two main risks of climate crisis: - physical risks (climate events) - transition risks - from green policies to accelerate transition to low-carbon

Now, central banks are confronted with an unpleasant conundrum that reveals the deeply political nature of their operations: greening monetary policy (collateral, unconventional bond purchases) means endogenous transition risks

So, in a have your cake and eat it moment, there is a growing tendency in central bank communities to pretend that all transition risks come from the fiscal side (carbon pricing)

It wouldn't be surprising to find the exogenous transition shocks approach in the ECB's monetary policy strategy review, despite **?** and other's recognition that central banks cannot longer hide behind the 'market neutrality' argument.

Gabor (Twitter)

12.4 Financial Stability

12.4.1 Climate Risk

BIS Recommendations

This report provides an overview of conceptual issues related to climate-related financial risk measurement and methodologies, as well as practical implementation by banks and supervisors.

The report contains five key findings: First, climate-related financial risks have unique features, necessitating granular and forward-looking measurement methodologies.

Second, to date, measurement of climate-related financial risks by banks and supervisors has centred on mapping near-term transition risk drivers into counterparty and portfolio exposures.

Third, banks and supervisors have predominantly focused on assessing credit risk, as they advance in applying methods to translate climate-related exposures into categories of financial risk.

Fourth, while banks and supervisors remain at an early stage of translating climate-related risks into robustly quantifiable financial risk, work continues to gather pace

Fifth, key areas for future analytical exploration relate to measurement gaps in data and risk classification methods, as well as methodologies suitable for assessing long-term climate phenomena not always of a standard nature.

BIS (2021) Climate Risk (pdf)

Institutional Dynamics

Baer Abstract

This article studies how institutional dynamics might affect the implementation of climate- related financial policies. First, we propose a three-dimensional framework to distinguish: i) motives for policy implementation (prudential or promotional); ii) policy instruments (informational, incentive or coercive); and iii) implementing authorities (political or delegated). Second, we use this framework to show how sustainable financial interventions in certain jurisdictions - most notably, Europe - rely solely on informational policies to achieve both promotional and prudential objectives. Policymakers in other jurisdictions - e.g., China - also implement incentive or coercive financial policies to achieve promotional objectives. Third, we identify two main institutional explanations for this European 'promotional gap': i) limited control of political authorities on financial dynamics; and ii) strong powers and independence of delegated authorities. This governance configuration leads to an institutional deadlock in which only measures fitting with both political and delegated authorities' objectives can be implemented. Finally, we discuss the scenarios that might originate from the

current institutional setting. We identify three possible evolutionary paths: i) a drift towards a green financial technocracy; ii) a re-politicization of delegated authorities; iii) a move towards fiscal-monetary coordination.

Baer Memo

In 2017, the EU Commissioner Valdis Dombrovskis expressed his support to the idea of introducing a 'green supporting factor' in bank capital requirements to incentivize lending to sustainable activities (Dombrovskis, 2017). The following year, the European Commission included the idea of 'incorporating sustainability in prudential requirements' in its sustainable finance action plan (EC, 2018). This position was generally greeted with skepticism by most central bankers and financial supervisors (see, among others: Dankert et al., 2018; Elderson, 2018; Rehn, 2018). It was emphasized that the aim of prudential rules is to mitigate financial risk, not to steer private credit in any particular direction. *According to central bankers and financial supervisors, capital requirements should not discriminate between green and dirty financial assets, unless clear evidence of risk differentials is available.*

This recent clash between public institutions raises deeper questions. For what purposes should banking and financial regulation be used? And who should decide what the admissible purposes are?

EU Banking regulation cannot be employed as a policy tool to actively reallocate private financial resources towards sustainable investments.

In several emerging economies banking and financial regulation is instead actively used to promote specific productive sectors. Financial risk is still monitored, but stronger weight is given to development (e.g., green) objectives.

The current status quo is unsustainable due to environmental constraints. At some point, someone will need to introduce stronger promotional policies to steer credit towards sustainable sectors. Given the distribution of responsibilities, missions, and powers crystallized within the current institutional framework, these promotional efforts should be led by the political authorities, leaving delegated authorities with a supporting role.

Baer (2021) Climate-related financial policies (pdf)

12.4.1.1 Climate Change Impact on Central Banks

Batten Abstract

This paper examines the channels via which climate change and policies to mitigate it could affect a central bank's ability to meet its monetary and financial stability objectives. We argue that two types of risks are particularly relevant for central banks. First, a weather-related natural disaster could trigger financial and macroeconomic instability if it severely damages the balance sheets of households, corporates, banks, and insurers (*physical risks*). Second, a sudden,

unexpected tightening of carbon emission policies could lead to a disorderly re-pricing of carbon-intensive assets and a negative supply shock (*transition risks*). Climate-related disclosure could facilitate an orderly transition to a low-carbon economy if it helps a wide range of investors better assess their financial risk exposures.

Batten Memo

Our analysis builds on Bank of England (2015) and Carney (2015) which have examined the impact of climate change on the insurance industry, but broadens the scope of the analysis. Specifically, our paper examines the impact of climate change and the changes in the composition of energy supply associated with the transition to a low-carbon economy on the financial system and the macroeconomy, and thus goes beyond the analysis of the European Systemic Risk Board (2016) that considered the potential impact of the transition to a low-carbon economy on financial stability. While climate change is expected to have more adverse macroeconomic impacts on some developing countries, the focus of this paper is mainly on the impact of climate change from the perspective of central banks in advanced economies.

Without CCS, 35% of known global oil, 52% of gas and 88% of coal reserves will be 'unburnable' before 2050 in order to achieve the 2oC target.

The carbon price (which could take a form of a carbon tax or determined via a carbon emission trading scheme) would need to be about €35-60/tCO 2 for CCS coal-fired power plants to compete against coal-fired plants with unabated emissions, and €90-105/tCO 2 for CCS-gas fired plants to compete against gas-fired plants with unabated emissions.

Financial sector activities can influence physical risks through a number of channels. First, the decision of financial institutions to fund activities that are intensive in CO 2 emissions can contribute to increasing the climate-related physical risks, albeit indirectly; and conversely, their financing of technologies that help reduce CO 2 emissions can contribute to a reduction of climate-related physical risks. This is a problem of externalities, as the financial institutions that fund these activities do not necessarily suffer the losses and gains resulting from changes in climate-related physical risks, most of which may occur in the future, and hence may not internalise these losses and gains when making the funding decisions. The standard ways of addressing such externalities include appropriate use of taxes and subsidies, and legislation that directly targets the specific externalities.

By contrast, prudential regulations are fairly blunt instruments for dealing with climate-related externalities. For example, capital requirements for banks and insurers are designed to mitigate prudential risks, and hence adapting these to reflect externalities could undermine their primary purpose, or could give rise to undesirable effects. On the one hand, relaxing regulations just to encourage particular types of lending, for example by reducing risk weights that are used in calculating the regulatory capital ratios below their prudentially sound levels,

could jeopardise the safety and soundness of financial institutions. 12 On the other hand, tightening regulations on financial exposures to carbon-intensive firms could also have the unintended effect of increasing the cost of finance for those borrowers, thus reducing their ability to invest in emission-reducing technologies (e.g. CCS and renewables), unless exclusions can be applied to financing specifically earmarked for such investments. Thus, targeted policy measures are more likely to be effective in achieving climate-related objectives than adapting prudential regulations.

both the size of the financial losses arising from the occurrence of a given hazard and the allocation of those losses are influenced by the *ex ante* decisions of the financial sector. For example, the amount of insurance and credit available for financing the construction of buildings in flood-prone areas will determine the size of the eventual financial losses arising from the materialisation of such risks, as well as the allocation of these losses. The market outcome can be expected to be efficient as long as all contracting parties are fully aware of the risks and can price them efficiently, but various market imperfections could result in mispricing of risks. For example, the price of insurance could be driven up if asymmetric information leads to adverse selection problems, in which only those parties that are inherently higher risk than average choose to buy insurance. 13 Moreover, uncertainty about the wider repercussions of extreme weather events implies that certain risks – such as the likelihood that they trigger riots that could cause further damage – are inherently hard to model.

The materialisation of climate-related physical risks – e.g. via natural disasters that are influenced by climate change – can potentially result in large financial losses, some of which are borne by insurers while others are uninsured.

Batten Conclusion

This paper has examined the impact of climate change on the monetary policy and financial stability objectives of central banks. We have identified four main ways in which climate change and policies on carbon emissions could affect central banks' objectives. First, a weather-related natural disaster could trigger financial instability and a macroeconomic downturn if it causes severe damage to the balance sheets of households, corporates, banks and insurers (physical risks). The economic impact of a given natural disaster is likely to be less severe if the relevant risks are priced in financial contracts ex ante, and the financial system has distributed them efficiently, e.g. via insurance and reinsurance. Ex post, a central bank will need to react appropriately to a disaster to meet its monetary and financial stability objectives by gauging the impact on the output gap, inflationary pressure and the financial system – for example, by adjusting monetary policy and supplying liquidity to the financial system if needed. Second, gradual warming could also affect an economy's potential growth rate. However, more reliable quantitative estimates based on detailed sector-level impact analysis would be needed before central banks can incorporate this effect in their monetary policy analysis. Third, a sudden, unexpected tightening of carbon emission policies could lead to a disorderly re- pricing of

carbon-intensive assets and generate a negative supply shock (transition risks). This has a potential for generating significant balance sheet losses and financial instability. An orderly transition to a low-carbon economy is possible, and is likely to be facilitated by transparent and predictable policies on carbon emissions that encourage an early re-direction of private investment towards low-carbon technologies. Climate-related disclosure by industries could encourage this re-direction if it enables a wide range of investors to better assess their financial risk exposures. Such disclosure is likely to be more effective if it is both forward- looking and simple to understand – for example, how a given change in carbon price will affect the value of the firm. Such disclosure could potentially also help inform the central banks' assessment of financial stability risks arising from the transition to a low-carbon economy, for example via a stress test. Finally, both the changes in weather patterns and the increased reliance on bioenergy could increase the volatility of food and energy prices, and hence the volatility of headline inflation rates. This could make it more challenging for central banks to gauge underlying inflationary pressures and maintain inflation close to the target.

Batten (2016) Impact of climate change on central banks

12.4.1.2 Sustainable Regulation

WWF today launches a new framework – Sustainable Financial Regulations and Central Bank Activities (SUSREG) – to support central banks, financial regulators and supervisors in enhancing the financial sector's stability and resilience to climate-related and broader environmental and social risks, while enabling the mobilisation of capital for the transition to a low-carbon, resilient and sustainable economy.

Developed as part of WWF's Greening Financial Regulation Initiative, the SUSREG framework will be used to assess the extent to which climate-related, environmental and social issues are being integrated in key aspects of financial regulations, supervisory expectations and monetary policy in 40 countries, covering most members and observers of the Basel Committee on Banking Supervision (BCBS).

WWF

12.5 FED

12.5.1 FED's cognitive dissonace

Tarullo

We do not, at present, have a theory of inflation dynamics that works sufficiently well to be of use for the business of real-time monetary policy-making.

At times, the macroeconomists seemed to display an almost paradoxical coincidence of intellectual doubt and continued affirmation of the utility of some unobservables.

Fiscal policy has a big impact on the potential for a well-run monetary policy.

The dual mandate in the Federal Reserve Act instructs the FOMC to seek "maximum employment" and "stable prices."2 In both popular parlance and Fedspeak, those goals are today generally understood to mean a low unemployment rate and an inflation rate near the Fed's stated 2% target. These two metrics are observable. Monetary policy decisions are rightly(?) made based on what those metrics are *expected to be* in the future.

Since much of the impact of a change in monetary policy operates with a lag, the FOMC must predict, absent a policy change, the levels of employment and inflation that would be observed somewhere between a few months and a few quarters from the time of each of its meetings. Then it must predict how that outcome would change were the FOMC to increase or reduce the federal funds rate (or, in today's world, change the size or composition of the Fed's balance sheet).

The predictions that FOMC members make about the near (or nearish) future rest substantially on a range of data that is impractical to measure directly and on a range of parameters that cannot be observed at all.

Concepts that are effectively incorporated into three of the four "longer-term" projections that each FOMC participant makes quarterly, and that are now reported in the Summary of Economic Projections (SEP) that accompanies the FOMC statement in March, June, September, and December:

(1) potential GDP growth,

(2) the "natural rate" of unemployment, and

(3) the "neutral" or "equilibrium" real rate of interest, conventionally denominated as r*.

Looking forward, and particularly over the several quarters to the several years relevant for monetary policy-making, sound estimation and judgment are sometimes hard to differentiate from guesswork. I never quite understood how I could sensibly project what the post-crisis, post-recession state of the U.S. economy would look like. I never felt that my projections of those longer-run values were very useful, and I certainly did not place too much weight on them in thinking about specific monetary policy decisions.

The changes in all three values reflect a *striking shift in expectations* for the post-crisis, post-recession U.S. economy. Trying to puzzle out how much would be changing in a *durable*, rather than *temporary* fashion.

I also don't believe that what now appears to be the substantial overestimations of potential growth, the natural rate of unemployment, and the neutral rate of

interest had much of an impact on the actual course of monetary policy four or five years ago.

Implicitly assuming a stronger correlation between declining unemployment and rising inflation – that is, a somewhat more robust version of the Phillips Curve – than the quite attenuated relationship that has prevailed for more than twenty years.

The flattening of the Phillips Curve has occurred not just in the United States, but also in nearly every mature economy.

Many of my colleagues – and, for that matter, many outside economists doing their own forecasts – had a full understanding of the difficulties in accurately constructing "longer-run" variables and of the relative unhelpfulness of traditional constructs, such as the Phillips Curve, in predicting inflation. On the other hand, they often seemed to downplay those difficulties and shortcomings when approaching policy decisions.

Very unusual economic circumstances may have persisted well after the Great Recession.

I began to wonder over time whether the continued, almost instinctual attachment to past correlations between inflation and unobservable constructs, such as the natural rate and potential growth, was in part an effort to cope with the cognitive dissonance to which I alluded earlier. Unless inflation expectations can save the day, the relative unhelpfulness of these past correlations leaves the FOMC without a working theory of inflation. This, I think, is highly disconcerting for a profession that it is very attached to modelling and, by the way, makes the very reasonable point that having to identify the model that one is explicitly or implicitly using forces a more direct specification of the assumptions and presumed causal relationships that one believes are at work in the economy. In the absence of another theory that can explain the behavior of inflation, and thereby guide policymaking, I suspect that a lot of economists are reluctant to fully let go of an approach that uses the natural rate and that assumes some robustness of the Phillips Curve. It has seemed to me that some can at times be resistant to dissonant information, dismissing pieces of data as anomalous or transitory, so as to keep arguing – or at least assuming – for a Phillips Curve-inspired policy.

Inflations Expectations

Inflation expectations are a third, and arguably unique, kind of unobservable. Like the first kind, they are a form of data that is hard to observe directly. As the term implies, they are generally described simply as the expectations of the public as to where inflation will be at some point in the future. But unlike the first kind of unobservable or, for that matter, the second, they are not simply a factor or parameter that helps determine the path within which the economy is likely to head with a given monetary policy. Instead, they are believed to exert a direct effect upon the inflation rate in the economy and, most importantly

for present purposes, to be significantly within the control of the central bank. The presumed role of inflation expectations has become crucial to central bank thinking about inflation dynamics: "Well-anchored inflation expectations" is a phrase that echoes through the halls and the Board room at the Federal Reserve.

The steadily increasing emphasis on inflation expectations has occurred in no small part from, first, the breakdown of the presumed unemployment/inflation trade-off in the stagflation of the 1970s and, next, the flattening of the Phillips Curve in the subsequent period. All sorts seemed to be affecting actual inflation less than before. The trend had become better "anchored."

Why did the public shift towards a stronger expectation that future inflation would remain closer to the central bank's target? Again, there were numerous possible explanations, but the one that became dominant was that credit lay with the central bank itself. The resolve of the Federal Reserve and other central banks in combatting inflation in the very late 1970s and into the 1980s was presumed to have convinced the public that – unlike the earlier period – central banks were now firmly on task, and that they would do what it took to keep inflation relatively close to their stated (or implicit) target. This conclusion, while admittedly containing a bit of **self-congratulation** when reached by central bankers, was certainly logical, though it has not been verified empirically.

One can see how important the conclusion is for a contemporary central bank's understanding of its mission. It gives the central bank a tool to help control inflation by emphasizing, and where necessary acting upon, its commitment to stabilize inflation around target. To be effective, the central bank must ensure that those all-important inflation expectations do not become "unanchored," presumably to prevent the public from losing faith in that commitment.

Economists had incorporated expectations into their models of the Phillips Curve, producing numerous "expectations-augmented" Phillips Curves, some of which seemed to fit experience better than the original Phillips Curve. The expectations-augmented models most looked at by the Fed (and many others) still broke down during the Great Recession.

A theory giving a prominent role to expectations doesn't line up too well with how many businesses describe their own method for establishing and changing prices. "What the market would bear" always seemed to come out well on top of inflation expectations.

What does it take to shift expectations enough that they become "unanchored," and thereby have greater supposed influence on behavior and, eventually, inflation? Lagged inflation may be affecting expectations as much or more than current expectations are affecting future inflation.

In sum, the concept of inflation expectations is quite undertheorized and hard to pin down empirically. I will continue to be uneasy with placing too much confidence in the efficacy of inflation expectations in making monetary policy. Thus I have been hesitant to rely on "well-anchored inflation expectations" to

help pull inflation back up to 2%. There is no well-elaborated and empirically grounded theory that explains contemporary inflation dynamics in a way useful to real-time policymaking.

Ben Bernanke in 2007 explained his rejection of the rational expectations model of inflation expectations because "the structure of the economy is constantly evolving in ways that are imperfectly understood. Any number of pre-crisis regularities and correlations broke down in the intervening period.

- we need to be paying more attention to the observables. (downplaying the unobservables may leave some economists feeling uneasy – their own experience of becoming unanchored.) (not be understood as simple reliance on one's gut feeling) Once actual inflation is observed to be rising, raising rates more quickly.
- the use of monetary policy rules as the mandatory, or even presumptive, basis for monetary policy is ill-advised. (The Taylor Rule, for example, requires the specification of both r* and the GDP output gap.)
- monetary policy will need to confront the likelihood that we may be in for an indefinite period in which no Phillips Curve or other model will be a workable guide to policy.

All this poses a challenge for the Fed.

I find value in having a voice or two on the FOMC coming from an analytic tradition other than macroeconomics and monetary policy to provide an outside, critical perspective on the learning and accepted wisdom within monetary policy. The FOMC is missing an important voice from non-financial business.

Tarullo (2017) Monetary Policy Without a Working Theory of Inflation

12.5.2 FED's Dollar Empire

The return the Federal Reserve makes on its portfolio managing the dollar empire. In 2015, the Fed remitted $97 billion in profits to the US Treasury; compare that to the $88 billion made by the most profitable company in the world, Saudi Aramco.

That money is treated like tax money—the Treasury reduces the federal debt by that amount. The Treasury reduces the federal debt by that amount, diminishing the quantity of safe assets in the world.

Johnson

Refined Insights

Whatever anyone thinks of the yuan or BRICS et cetera, it's clear that the dollar is in for tough times ahead. The Fed is caught between Scylla and Charybdis.

A strong dollar, boosted by higher interest rates, is beneficial to the middle class and the poor who retain substantial amounts of their capital in cash. A strong

dollar also, of course, makes imports cheaper. Of course, the most important benefit is it helps counter inflation.

But the era of zero interest rates went on for too long(the pandemic clearly didn't help matters). It meant that regional banks all over the country were sitting on massive piles of unrealized losses. Tech, the industry which benefits most from zero interest rates, was given a full decade of it. What did they do with it? Well, the honest truth is other than Elon Musk(who I have to concede built actual useful stuff), hardly anything that matters.

Captured by venture capitalists, The tech industry has spent all of that time and resources promoting the gig economy to disrupt traditional labour, crypto in the absurd hope that institutional gambling and Ponzi schemes constituted some kind of financial alternative, and the metaverse to do precisely what exactly?

They have squandered a golden opportunity to actually build the next era of technology on American shores (perhaps LLMs make a difference: the jury is still out there).

The decision to freeze Russia's reserves, go after Oligarchs' assets regardless of due process, and weaponize the financial system will come in time to be remembered as one of the greatest geopolitical own goals of all time. It means that the elite all over the world are more reluctant now to purchase western assets which of course drives dollar demand down, it means China can and is entrenching itself in the middle east and I can't draw out all of the massive implications there, and it means America has unwittingly made itself the midwife of an alternative financial system, albeit one with very different goals and strengths.

So, the Fed can't afford to keep raising interest rates: it will break several of American industries(banking and tech most clearly). It can't afford to not keep raising interest rates (if inflation is not countered properly, the consequences for the median American are steep)

As it is, Biden by endorsing the right decision to make depositors whole(ironic that 'independent risk taking libertarians' panicked and clamoured for federal intervention so easily), may have damaged his own chances of reelection. The collateral damage of this decision will be vast. But, in keeping with the grand old rules of capitalism, the venture capitalists will escape much of it.

Refined Insights (2023) Comment to Noah Smith on FED's SVB actions

12.6 ECB

Morgan

The central bank (the ECB and the national central banks or NCBs) have in general undertaken actions that have supported commercial banks, while doing less to ensure sufficient lending occurs and productive investment is financed, to support recovery and growth.

A great deal of institution building has helped to produce rather than solve problems and policy has been poorly targeted, insufficient in scale relative to the problems addressed and has often been withdrawn too soon. The result has been comparatively high unemployment, deflation (until recently) in terms of price stability targeting at 2%, and slow growth (cumulatively leading to an issue of "secular stagnation", and without, rhetoric notwithstanding, properly addressing the need for massive climate response transitions).

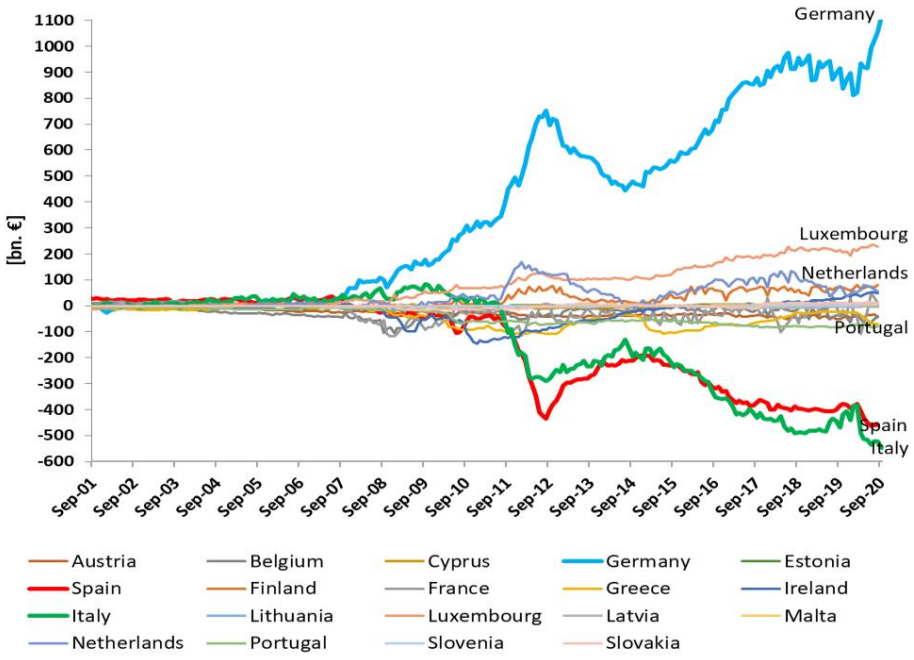


Fig: TARGET2 Imbalances

There is no set maturity or settlement deadline for the intra-Euro system claims; in fact, the TARGET2 liabilities are honoured by making interest payments. The payments are collected and redistributed by ECB to the central banks with positive TARGET2 balances. This is an important aspect as it means that a creditor country cannot force a debtor country to pay back, and the creditor will have to live on an interest rate which could be zero or even negative in real terms.

Analysts suggest there has been, amongst other things, a "passive monetisation" behind the scenes (the ECB has effectively financed deficits in the face of capital flight etc.). TARGET2 then, is a symptom of some problems and a cause of others.

Morgan (2023) European Perma-Crisis: Usually late and never quite enough. Review of Muhammad Ali Nasir: Off the Target: The Stagnating Political

Economy of Europe and Post-Pandemic Recovery

12.7 EU Macroprudential

Stellinga Abstract

The 2007–09 financial crisis appeared to demonstrate the need for a strong, supranational EU macro-prudential policy framework to prevent similar future disasters. The implemented framework, however, is neither. It is highly complex, involving many constraints on the use of macro-prudential instruments. It is also one of the principal areas of national discretion in EU banking regulation. To explain this, I build on the 'financial trilemma' thesis which holds that there are inherent tensions between pursuing financial stability, financial integration and national financial policies. Supranationalizing macro-prudential policy proved difficult due to a lack of consensus on how to measure systemic risks and because of the distributional consequences involved. This increased the tension between stability and integration, as national macro-prudential policies could constrain cross-border finance and they could be misused for competitiveness considerations. Key policy actors disagreed on which goals to prioritize, with bargaining leading to a convoluted policy framework.

Stellinga Memo

MPP targets systemic risks by enabling supervisors to tighten requirements during booms, to loosen them when risks recede, and to impose tougher rules on systemically important financial institutions.

Given the devastating consequences of the crisis and EU policy-makers' embrace of macro-prudential ideas, a strong MPP framework seemed a likely post-crisis outcome. Especially in light of the EU's push for regulatory harmonization – both the single rulebook and the shift (in the Eurozone) towards supranational supervision by the European Central Bank (ECB) reduced national discretion in micro-prudential regulation – we would have expected a harmonized framework to emerge for macro-prudential policy.

The implemented framework did not meet these expectations. Although supervisors gained new macro-prudential instruments, their use has been constrained by procedural requirements and limits to their stringency and scope, with macro-prudential instruments focusing on capital requirements and leaving other segments of banking regulation and the non-banking sector largely untouched.

Systemic risk is an elusive concept with an important national dimension, rendering a one-size-fits-all approach counterproductive.

The MPP framework that developed between 2009 and 13 was the result of key actors' inability to agree on how to balance national discretion, stability and integration.

With no consensus on how to measure systemic risks, supranational macro-prudential norms implied a one-size-fits-none approach. As systemic risks change over time, relying on a fixed set of indicators could well mean preparing for yesterday's war.

Stellinga

12.8 Finance Influence

Braun Abstract

The pre-crisis rise and post-crisis resilience of European repo and securitization markets represent political victories for the interests of large banks. To explain when and how finance wins, the literature emphasizes lobbying capacity (instrumental power) and the financial sector's central position in the economy (structural power). Increasingly, however, finance also enjoys infrastructural power, which stems from entanglements between specific financial markets and public-sector actors, such as treasuries and central banks, which govern by transacting in those markets. To demonstrate the analytical value of this perspective, the article traces how the European Central Bank (ECB), motivated by monetary policy considerations, has shaped post-crisis financial policymaking in the EU. It shows that the ECB has played a key part in fending off a financial transaction tax on repos and in shoring up and rebuilding the securitization market. With market-based forms of state agency on the rise, infrastructural entanglement and power shed new light on the politics of finance.

Braun Memo

Following the global financial crisis, the European Commission proposed taxing repos and reining in securitization, in an effort to tackle the two financial markets at the heart of European shadow banking. Several years and policy battles later, repos are exempt from a defanged financial transaction tax proposal, while reviving securitization is a top EU policy priority. Why did financial-sector interests prevail? Proposing a new theoretical approach to the politics of finance, this article focuses on the power relations at the hybrid intersection of private banking and public central banking.

Much has been written about the politics leading up to and protecting central bank independence, which both stems from and entrenches unequal power between capital and labour in a low-salience, technocratic policy area. In contrast, the literature has less to say about how, once central bank independence is established, power operates at the intersection of public monetary authority and private financial markets.

The marketization of financial intermediation is a key aspect of financialization. The rise of what has variously been labelled 'shadow banking', 'securitized banking' or 'market-based banking' has been a boon to the financial sector. Fee-based income, regulatory arbitrage, bigger balance sheets and higher leverage ratios

have boosted profits and remuneration. Despite being seen as the chief culprit of the global financial crisis, market- based banking has shown remarkable resilience since 2008. In Europe, following a brief period of stigmatization, it is at the heart of 'Capital Markets Union', the European Commission's attempt to build a more market-based financial system. This surprising outcome indicates substantial political support for financial-sector interests.

The political economy literature emphasizes two forms of political power wielded by the financial sector: instrumental power, exercised through lobbying, and structural power, which derives from the financial sector's privileged position in financialized economies.

This literature has yielded important results, but its treatment of the state and of finance as two separate spheres, and of state agency as purely regulatory, is problematic. It is at odds with the crucial insight of a discipline-spanning body of research that maintains that, at the centre of the financial system, state and market actors form a hybrid public–private partnership, or a franchise system.

Whereas the regulatory view conceptualizes state–finance interactions as 'regulation and governance through rule making and rule enforcement', this article, drawing on the hybridity view, maintains that state agency is often market-based—state actors appear not just as regulators of but also as participants in financial markets.

This article advances a simple theoretical argument: when state actors transact in finan- cial markets for governance purposes they create infrastructural entanglements, which con- stitute a distinct source of financial-sector power. In the case at hand, repo and securitization markets—the two main pillars of market-based banking—provide the infra- structure through which the European Central Bank (ECB) implements its monetary policy. This entanglement makes central bankers, who seek to maximize their economic steering capacity, dependent on bankers, giving the latter infrastructural power. This has distributional consequences: financial institutions benefit from their infrastructural role in the monetary system, including through interest payments on central bank reserves—which come at a fiscal cost to taxpayers — and through preferential treatment in the political process.

The political power that accrues to private financial actors as a result of state actors seeking to govern through financial markets.

Explaining the ECB's support for repo and securitization markets by the central bank's dependence on these financial infrastructures, the article adds an important piece to the puzzle of how finance wins, while at the same time highlighting policymaking as a facet of central banking that, at a time of heightened concerns about central bank independence and legitimacy.

The political economy literature has shed light on the delegation of power to cen- tral bank technocrats, but has failed to elucidate the politics of how, once empowered, central bankers act on the economy.

This became particularly problematic when, in the context of financial liberalization in the 1980s, central bank agency became more market-based. Specifically, central banks shifted from 'direct' to 'indirect' monetary policy instruments—the triad of reserve requirements, standing facilities and open market operations. As part of the latter, central banks, including the ECB, adopted financial practices from the private sector, notably mark-to-market techniques, margin calls and hair- cuts. The ECB took the marketization of monetary policy to new heights when, in 2005, it outsourced the decision over the collateral eligibility of euro-area sovereign bonds to private credit rating agencies.

ECB is different from other EU gov- ernance bodies. It is not only a central bank that holds and exerts administrative authority— 'setting, interpreting and applying statutory rules'—but also a central bank that trades in financial claims with other, private-sector banks.

The central bank's control over macroeconomic conditions depends on financial transactions into which private actors enter at their own discretion, creating infrastructural entanglements with those financial markets that serve as the conduits for monetary policy.

Traditionally, European banks have engaged in relationship-based lending financed by customer deposits. While banks continue to play a central role in European credit intermediation, the hallmark of the new business model has been the marketization of both sides of banks' balance sheets. On the asset side, banks securitize loans into asset-backed securities that are sold to investors. On the liability side, banks complement deposit financing by borrowing in the secured money market, where securities (including securitized loans) serve as collateral. This business model of market-based banking is part of the broader shadow banking system that includes non-bank financial institutions, such as money market mutual funds and asset managers.

From a political economy perspective, market-based banking, and shadow banking more broadly, matter for three main reasons: systemic risk, corporate finance and inequality. The 2008 systemic financial crisis was caused by losses on securitized loans on the asset side and a freeze of short-term money market funding on the liability side of banks' balance sheets The buffer function associated with relationship-based banking is diminished with market-based banking, under which borrowing conditions for firms and households depend much more directly on developments in global capital markets. The marketization of financial intermediation has been a key contributor to the growth in inequality in OECD countries.

The financial sector's high levels of unity and organization often bring favourable political outcomes.

The dependence of the state on private and the resulting structural power of business in general, and of finance in particular. The distinguishing feature of structural power is that it achieves political forbearance without the need for business to organise and act in concert.

The central bank and the treasury—routinely enter transactions with private-sector counterparties, buying and selling financial claims for public policy purposes. This leads to the main theoretical argument of the present article: those parts of the financial system that serve as conduits for such market-based economic governance enjoy infrastructural power. Closely related to structural power in that it rests on the financial sector's centrality for economic performance, infrastructural power nevertheless constitutes a distinct sub-type derived from direct entanglement at the level of policy instruments rather than the indirect dependence at the level of ultimate policy goals.

According to the structural power approach policymakers placate business interests for fear that not doing so would harm economic growth. In contrast, infrastructural power operates via policymakers' expectation that harming particular markets would blunt their own policy instruments and thus diminish their control over the economy.

The European Commission and the ECB may be working towards complementary and compatible goals, but they do so by different methods: the Commission governs by issuing directives and regulations, the ECB by issuing liabilities and purchasing securities.

The ECB's support for repo and securitization markets is underpinned by a rational expectations-based macroeconomic paradigm that implies a positive net effect of deep and liquid financial markets on economic performance and governability.

Central bankers protect finance in order to bolster their own institutional position and independence.

Repo

While there was still considerable instrument diversity in the 1990s, by 1997 most EMU central banks had converged on reverse repurchase transactions as their primary reserve- providing instrument, thus paving the way for them to become the standard instrument for all open market operations of the Eurosystem (that is, the ECB and the national central banks). A sale and repurchase agreement, or repo, consists of an exchange of cash for securities between two parties. The cash borrower ('repo seller') agrees to repurchase the securities from the cash lender ('repo buyer') at a specified date in the future. Interest is paid by the cash borrower in the form of a mark-up on the repurchase price, the repo rate. Repo markets are at the heart of the global shadow banking system. In addition to the interbank segment, repo markets also connect banks in search of short-term funding and non-bank institutions seeking safe and liquid, money-like assets. Following the crisis, repo markets came under scrutiny for their effects on pro-cyclicality and leverage in the banking system, as well as on the bank–sovereign nexus. There are currently $12 trillion of repo and reverse repo transactions outstanding globally, of which about $9 trillion are collateralized by government bonds. At $2.8 trillion, the euro-area repo market is the world's largest.

In the late 1990s, several high-level repo market studies identified the transnational integration of the European collateralized interbank market as a crucial prerequisite for the single monetary policy. Most importantly, the Giovannini Group, which reported to the European Commission, bemoaned the fact that Europe still had 'essentially 15 separate repo markets' and argued that a 'truly unified repo market' would facilitate central bank control over interbank rates. A study commissioned by DG Economic and Financial Affairs also emphasized that it would be 'in the interest of the central bank to have an efficient repo market', which would enable 'interest rate changes [to] feed through to the real economy more quickly and more evenly'.

FTT

Starting in 2010, the Commission, then supported by the largest Member States, advo- cated taxing repos on the grounds that the market contributed to excessive and pro-cyclical leverage and thus to financial instability. The ECB, in contrast, opposed the financial trans- action tax on the grounds that a tax on repos would harm the market that served as the con- duit for the implementation and transmission of its open market operations. The rift between the two agencies was thus not based on a fundamental divergence on policy goals, but on the dependence of the ECB's market-based policy instruments on a deep and liquid repo market.

Securitization

Prior to the US subprime crisis, central bankers and regulators praised securitization as a tool for risk diversification. In contrast, after the crisis securitization was seen as riddled with asymmetric information and moral hazard problems, and was linked to excessive lending, fraudulent mis-selling and financial instability. Regardless of the normative assessment, securitization reorganizes risks and incentives in ways that represent 'a fundamental shift in how finance is done'.

The infrastructural entanglement between the ECB and the securitization market is rooted in the ECB's decision to integrate ABSs into its collateral-eligibility framework. More recently, in the wake of the failure of Lehman Brothers, the ECB assumed the role of 'dealer of last resort' for ABSs. By taking suddenly-illiquid ABSs onto its balance sheet, the ECB gained leverage over the securitization market, while at the same time becoming more dependent on it. This infrastructural entanglement led the ECB to support securitization at a time when this asset class was still shunned by investors and politicians alike, thus paving the way for its subsequent resuscitation.

Collateral, quantitative and regulatory easing—no other public agency has done more for the European securitization market than the ECB. To see why instrumental power cannot explain this steadfast support, timing is, again, crucial. The ECB cast securitization as part of the solution at a time when other European and national policymakers still regarded it as part of the problem.

The divergence between the ECB and the Commission is difficult to square with the structural power approach, which lacks a theoret- ical rationale for why different parts of the EU governance apparatus should hold such different views of the effects of a more tightly regulated securitization market on the shared policy goals of financial stability and economic growth. In contrast, the market-based nature of central bank agency, and the resulting infrastructural entanglement at the level of policy instruments, explain why the interests of the ECB were uniquely aligned with those of the securitization sector.

The theoretical argument transcends the case of the ECB: In areas such as monetary policy, debt management or public banking, policy instruments are market-based, and governmental actors seeking to 'govern through financial markets' have a vested interest in shoring up and stabilising the relevant market/ governance infrastructures.

Conclusion

One of the central questions for political economists in recent years has been why and how finance tends to win. The post-crisis resilience of market-based banking in the euro area repre- sents a significant victory for the financial sector because repo and securitization markets boost profits via higher leverage and income from fees. To explain that victory, this article adapted the concept of infrastructural power for studying the politics of finance. It showed that, in the two cases under consideration, the political power of repo and securitization mar- ket actors derives from their infrastructural entanglement with the ECB. Infrastructural power constitutes a sub-type of structural power that focuses on differences in governance methods, namely between administrative governance and market-based governance. Whereas structural power operates via policymakers' expectation that harming business will harm economic performance, infrastructural power operates via policymakers' expectation that curtailing mar- kets will curtail the effectiveness of their own, market-based policy instruments.

ECB as a de facto financial policymaker; a role that is not, except in supervisory matters, part of its legal mandate. The ECB has helped establish, expand, protect and revive repo and securitization markets, which serve as infrastructure for the imple- mentation and transmission of monetary policy. The preference for deep and liquid financial markets, shared by bankers (guided by profits) and central bankers (guided by monetary governability), prevailed.

The notion of harnessing capital markets for public policy goals has also been at the heart of Capital Markets Union, which deploys a broad set of measures to engineer a more-market- based financial system. Deprived of fiscal and other macroeconomic policy instruments, the European Commission, supported by the ECB and by public development banks, sees Capital Markets Union as a means to harness private financial markets in order to achieve macroeconomic goals.

The infrastructural power approach predicts that, under conditions of infras-

tructural entanglement, the interests of state actors in search of market-based economic steering capacity will tend to align with the interests of financial-sector counterparties, thus boosting the latter's political power.

This article calls for caution. Other things being equal, greater reli- ance on market-based forms of state agency tends to strengthen the infrastructural power of finance. Working 'through financial markets' may limit the ability of public authorities 'to help Main Street, not Wall Street'.

Braun (2021) Central banking and the infrastructural power of finance (pdf)

12.9 Unconventional Central Banking

Mushtaq Abstract

The 2008 financial crisis saw central banks introduce a variety of tools to shore up the financial system, including unconventional measures that made use of central bank balance sheets to directly shape markets. This paper argues that central banks increasingly rely on unconventional tools in noncrisis times to maintain confidence in an unstable financial system: in rich countries, outright asset purchase programs form the core of monetary policy, and in emerging capitalist economies, the sale and purchase of foreign exchange assets constitute the central mechanism of exchange rate policy. These interventions increasingly target 'market dysfunction,' as opposed to (a narrow interpretation of) monetary policy or the level of the exchange rate, suggesting a convergence in central bank operations around maintaining the plumbing of finance. Using two case studies – foreign exchange operations by the Reserve Bank of India and asset purchase programs by the U.S. Federal Reserve – the paper demonstrates a blurring of the boundaries between crisis and noncrisis interventions, and lends evidence to the concept of a de-risking state that guarantees liquidity. The paper concludes with a discussion of how a de-risking state exacerbates inequality, financial vulnerabilities and undermines meaningful action on pressing issues such as climate change.

Mushtaq (2021) Unconventional central banking and the politics of liquidity (paywall)

12.10 CBDC - Central Bank Digital Currencies

Coppola

There is a strong case for central banks to issue digital bearer instruments for use in our growing digital economy. These would not suffer the impracticality and storage costs of physical cash, they could potentially be considerably more secure, and businesses would not need to hold float or physically deposit money in banks.

There would be a considerable social cost to replacing physical cash entirely with such an instrument, since using it would depend on having access to electronic media: this creates obstacles for some groups of people, such as the elderly and people with disabilities, and carries the risk that if the electronic media fail, people may be left with no access to their money and no means of obtaining essential supplies. As we have seen recently, access to electricity is a weapon of war. We should be cautious about making our monetary system too dependent on it.

Since central banks dropped the idea of issuing digital bearer instruments, the debate about CBDCs has focused on two questions:

- should we change the technology behind central bank reserves and settlement? and
- should we give households and businesses central bank accounts?

You'll notice I haven't used the term "CBDC". That's because bank reserves already are a CBDC. The debate is all about what technology our existing CBDC should use, and whether the current strict restrictions on who can access it should be lifted.

Bank reserves and blockchain: never mind the technology, it's all about accounting

When people talk about CBDC technology, they almost always mean blockchain. So it's worth spending a few moments outlining how the current technology works and considering to what extent adopting blockchain technology could improve the speed, cost and security of mainstream payments.

In advanced Western countries, and in an increasing number of developing countries too, electronic payments are settled across central bank real-time gross settlement (RTGS) systems.

Central bank RTGS systems use traditional double-entry accounting. The movement of money is recorded by simultaneously posting equal and opposite amounts to the central bank reserve accounts of the sending and receiving banks. Because these postings are made simultaneously, the implied movement takes no time. The payment is instantaneous.

Blockchain technology is fundamentally different. A blockchain is an append-only digital ledger which records the movement of digital currencies from one address to another. It does not record the ledger balances held by each address, though this can be calculated by adding up all the movements in and out of that address. This is the polar opposite of a double-entry accounting system, in which the movement of money is implied from the changes in ledger balances rather than explicitly recorded.

It can seem more intuitive to think of money changing hands as a movement rather than a change in ledger balances. After all, if you pay for goods with physical cash, you get notes and coins out of your back pocket and you hand

them over to the retailer, who gives you the goods. This is how blockchain works. It re-creates digitally the movement of physical cash in a face-to-face transaction.

But we've been using double entry accounting since the 14th century, and our entire financial system is based on it. Switching over to a system that simply replicated the handover of cash would be incredibly disruptive and, I would suggest, offer no improvement over the simultanous recording of changes to ledger balances for both participants in a transaction.

Interestingly, back in the 1980s when I was a young IT professional working in a major bank, we changed customer accounting systems from single-entry (recording movements) to double-entry (recording ledger balances). The early bank systems of the 1960s and 1970s had been designed by techies who didn't understand accounting. Blockchain is similarly designed by techies who don't understand accounting.

There are two types of blockchain: permissioned, and permissionless. The most familiar blockchain-based digital currency, Bitcoin, is a permissionless system. Anyone can access it: all transactions are public: addresses are anonymous: a complicated (and extremely expensive) verification process prevents fraudulent transactions. Above all, there is no central authority controlling it. It runs itself.

A permissioned system is private: access is restricted to those granted permission by central administrators. Verification can be community-led or centralised, but it's unlikely to use the complicated and expensive protocols characteristic of permissionless systems. After all, if your central authority is deciding who should access the system, why go to the expense of having independent verification of transactions?

It should be obvious that a blockchain-based central bank settlement instrument would not be permissionless. After all, anything issued and controlled by a central bank is by definition, centralised. But a permissioned blockchain is really only a shared database, and that's what the central bank's balance sheet already is.Again, we are back to "we already have a CBDC".

RTGS systems are often criticised for slow and expensive settlement. The argument is that replacing them with CBDCs on permissioned blockchains which interact with each other would make international payments, particularly, faster and less expensive.

But what takes the time and causes the cost is not the way the accounting works. It's the limitations of the physical hardware that necessitate batching and netting; the limited time windows at central banks (because they are run by humans and humans go home); and above all, the layers of security checks performed by banks, payment companies and central banks. All of these can of course be improved, but they can't be completely eliminated. There isn't any hardware in the world that can simultaneously settle trillions of payments at

the individual transaction level, and no government is going to allow its central bank to settle payments that could be fraudulent or break its rules.

And whether we like it or not, time zones exist. For foreign exchange transactions, the Continuous Linked Settlement (CLS) system simultaneously settles both legs of the transaction across the RTGS systems for the relevant currencies: thus, for example, a cross-border payment from a dollar account at a US bank to a sterling account at a UK bank is settled simultaneously by Fedwire and CHAPS. CLS waits for all member central banks to be online at the same time and settles all FX transactions within that fairly small time window. This eliminates Herstatt risk, which is the risk that one leg of an FX transaction will fail to settle because of a bank failure in the time zone difference. But it does significantly slow down FX settlement. If an interoperable CBDC-based system enabled FX transactions to settle 24/7/365, international payments could be much faster.

But it's not at all clear that such a system needs to use blockchains. Recording the movement of money in a transaction cannot be any faster than simultaneously recording the change in the ledgers at both ends of the transaction, and it cannot be any less costly. And interoperability does not depend on using a particular technology. It is largely a matter of common standards.

Changing from double-entry to single-entry accounting is not going to speed up central bank settlement, and it is not going to improve the transparency and auditability of transactions, either. You only have to look at how difficult it has been for those dealing with the failed crypto companies FTX, Celsius and Three Arrows Capital to find out where the money has gone are to realise just how much a blockchain-based system complicates financial management. We should not make such a change lightly.

Sovereign money and its pitfalls

Widening access to central bank reserve account would have profound and far-reaching economic, social and political implications.

Whatever technology is used, giving households and businesses central bank accounts would be a form of what is known as "sovereign money". In its most extreme form, this would strip commercial banks of their ability to fund themselves with deposits, since households and businesses would refer to hold deposits at the central bank than in commercial banks. The consequences for lending could be dire. For this reason, most proposals to widen access to central bank accounts restrict either the amount of money that can be held in a central bank account or the purposes for which the money can be used, or both.

Calibrating the right level of such restrictions is not easy. A limit on the amount of money that can be held faces similar problems to deposit insurance limits. Too low a limit makes the account unusable: for example, an early CBDC proposal from the ECB set a limit of 3,000 EUR, which is far too low for most businesses. Too high a limit disintermediates banks.

Banks do of course have the option of raising interest rates to attract deposits. This would have consequences for monetary policy. The interest rate on a CBDC would become the effective floor on the deposit funding rate for banks, and hence would influence the price of lending in much the same way as paying interest on reserves does now. I have seen proposals to set the CBDC interest rate permanently at zero, but in my view this would distort monetary policy, since it would encourage banks to keep deposit rates permanently low and simply adjust lending rates in response to central bank interest rate rises. It's not clear to me why we should subsidise banks at the expense of depositors in this way. Furthermore, remunerating bank reserve accounts to prevent the policy rate falling below zero (as central banks have done since 2008) whilst paying zero interest on a CBDC used by the general public would be grossly unfair and politically unsustainable.

There's also the problem of deposit insurance. Most sovereign money proposals assume that deposit insurance would no longer be necessary, because the central bank is not at risk of liquidity crisis. But maintaining deposit insurance might be necessary to protect commercial banks. Without it, there would be runs to the central bank at times of financial instability. And there would also be political pressure to raise the CBDC limit. As we have seen this year, in times of financial instability protecting depositors from loss becomes the imperative, and the need to maintain productive lending becomes an afterthought, if it is considered at all.

Restricting what can be done with a CBDC has profound implications for civil liberties. Central banks are only as independent as politicians allow them to be, and a nominally "independent" central bank can in practice be significantly coerced by a determined government. It would be far too tempting for a government to, for example, prevent a CBDC from being used to buy cigarettes or sugary drinks. More worryingly, it would be far too easy for a government to restrict who should have access to a CBDC. The prospect of an authoritarian government being able to deny its political opponents the means to live is terrifying. We should think very hard before introducing, as the sole or main medium of exchange, a form of money that is so easily controlled by government.

Conclusion

Our burgeoning digital economy does need its own form of money, and it makes sense for this to be produced by a central bank, not least so that the digital economy remains embedded in the wider macroeconomy. And updating RTGS technology is clearly needed, particularly for international payments. But current proposals for CBDCs are going in the wrong direction. Political fears and objectives are dominating the discussion, and the independence of central banks is once again, being subordinated to the understandable desire of politicians to control how people use their money.

There is value in a digital bearer instrument similar to physical cash, and I do not see why a genuinely independent central bank should not produce such an

instrument. But extending central bank accounts to households and businesses is fraught with political, social and economic problems. I am yet to be convinced that the benefits outweigh the very considerable risks.

Coppola (2023) CBDCs: Going in the wrong direction

13

Off Balance Sheet Financial Agencies (OBFA)

Gutur-Sandu Abstract

ABSTRACT

The original Maastricht regime designed the Eurozone's fiscal segment in a way that sought to keep member states' treasury budgets balanced by disciplining them through market forces, reducing the overall volume of public indebtedness, prohibiting monetary financing, and avoiding that Eurozone treasuries bail each other out. In this article, we analyse how these 'neoliberal' rules for fiscal governance have been gradually superseded by an alternative approach that we call 'governing through off-balance-sheet fiscal agencies' (OBFAs). OBFAs are special purpose vehicles that complement treasuries in supporting public investment, offering solvency insurance for banks, providing capital insurance of last resort for other treasuries, and expanding the stock of safe assets. By sponsoring OBFAs, treasuries can substitute 'actual' liabilities on their balance sheets, which are potentially in conflict with the EU's neoliberal fiscal rules, with 'contingent' liabilities – guarantees that do not appear on-balance-sheet. Together, national and supra-national treasuries and OBFAs form a 'fiscal ecosystem' in which neoliberal fiscal rules get re-emphasised but in practice are increasingly mitigated. This new mode of Eurozone fiscal governance is reflected not only in multiple policies implemented since 2010 – the Recovery and Resilience Facility for example – but also represents the main strategy in many Eurozone reform proposals.

Gutur-Sandu (2021) Eurozone's Evolving Fiscal Ecosystem (pdf)

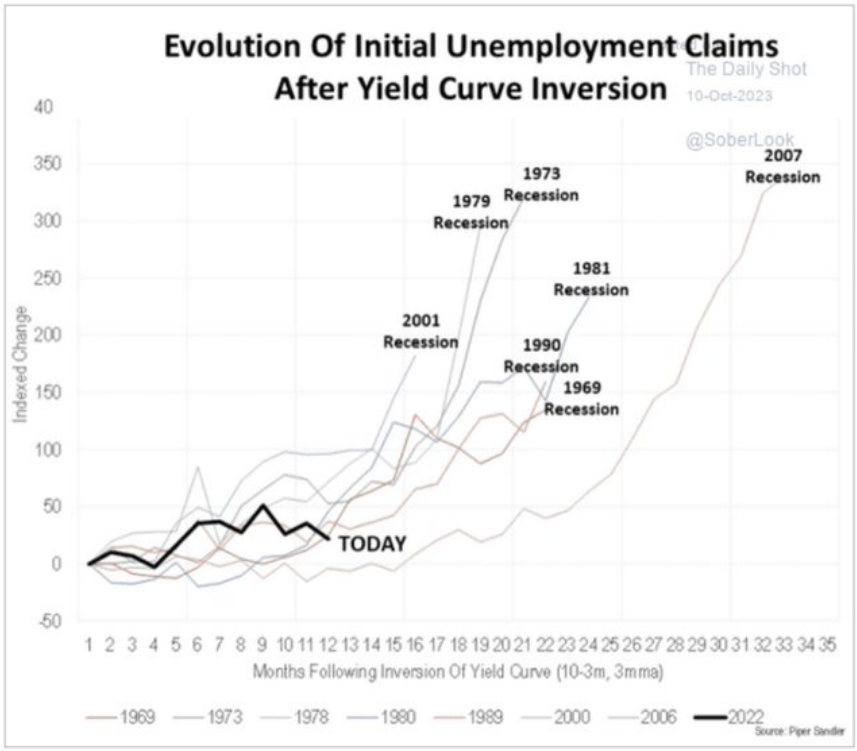
14

Public Debt

14.1 Yield Curve Inversion

Typical macro cycle turns are slow to start, but they all end in recession.

The current modest rise in unemployment is about median for a year in since YC inversion compared to post-war cycles. But it's usually in this time frame where things start to get interesting:



Source: Piper Sandler

Elliot (2023) Twitter

14.2 Public Debt Management

Romerskirchen

Already before the outset of the global pandemic, public debt loomed at historically high levels in all but a few advanced economies. The pandemic-related surge in government financing needs has resulted in OECD governments issuing a record amount of debt. Questions around the sustainability of this growing debt burden have taken centre stage in accounts of public finance. What is largely absent in these debates is the question of how governments actually borrow. The budgetary constraints of debt are not merely a function of debt levels, but are influenced by the ways in which public debt is planned, issued and managed. In the UK, 2019/20 debt interest payments, while benefiting from low interest rates, amounted to £48 billion – more than defence spending. In spite of its economic and political importance, public debt management has received scant attention and continues to be clouded with technocratic obscurity. The arcane nature of public debt management has allowed consequential

reforms in debt management agencies to largely fly under public and academic radars. This ESRC-funded study seeks to give a comprehensive account of this overlooked revolution.

Starting in the 1980s, debt management functions in rich economies have been handed over to newly created debt management offices, which now enjoy far-reaching policy independence in managing sovereign debt. Who are these agencies which manage over 50 trillion US-Dollars across OECD countries? How can we explain the transformation of public debt management, both regarding institutional arrangements and new managerial practices? And what are the consequences and challenges of this silent revolution?

This project on the operational arm of debt management seeks to throw light into an overlooked corner of public finances. ToPDeM will theorise and analyse the diffusion of new practices in sovereign debt management. In so doing, this research will combine evidence from statistical analyses of 24 advanced economies with an in-depth comparative case study of 3 countries demonstrating variation in institutional outcome (the UK, Germany, and Denmark).

Romerskirchen

14.3 Sovereign Debt after Covid

G30 Report

Sovereign Debt and Financing for Recovery after the COVID-19 Shock: Next Steps to Build a Better Architecture

This report acknowledges the world – and lower-income countries – have so far avoided large pandemic-driven debt defaults in part due to positive spillovers from extraordinary monetary and fiscal support in mature markets. However, the authors caution against complacency, warning that as the overall economic outlook brightens, the likelihood of tightening policy may result in outflows as well as further debt distress and ill effects in emerging and frontier market economies. Moreover, continued worries over the course of the pandemic, predominately vaccination rates and global access, must discourage early complacency or congratulatory posturing.

The report makes clear that collective aversion to crisis planning - ostensibly for fear of triggering a self-fulfilling prophesy of debt defaults - is irresponsible when much of the world is one unforeseen shock away from a lost decade. The report underscores that now is the time to rebuild and reform the architecture to improve its long-term resilience and effectiveness. The G30 report makes a series of important recommendations designed to buttress the sovereign debt restructuring process and mechanisms in the following areas: There should be a recycling of SDRs, creditors should reaffirm and elaborate the comparability of treatment principle, the G-20 should establish a standing consultative mechanism in conjunction with the Common Framework, national law in major

financial markets should shield payment systems and intermediaries from disruptive debt collection, the G-20 should publicly disavow the use of contract terms that impair debtors or creditors participation in international debt negotiations, and commercial, official, and multilateral lenders should encourage sovereign borrowers to adopt robust domestic debt disclosure requirements as part of their debt authorization.

Slow progress on reforming debt architecture leaves the world unprepared to deal with persistent global public health and macroeconomic vulnerabilities in the coming years.

The ravages of the pandemic are now at the highest point in several important emerging markets, while higher inflation is resulting in policy tightening, endangering the economic recovery.

The possibility of debt servicing difficulties is substantial in the near term.

The mechanisms put in place so far are likely inadequate to the challenges ahead.

Continued failure to take the necessary steps to prepare for future shocks increases the risk that debt problems would not be resolved in an orderly way.

G30

14.4 Treasury Bond Market

Tooze

The system as a whole looks highly unstable. The Treasury market, "is primed so that high-frequency traders and primary dealers pull back when there are problems", said Yesha Yadav, a professor at Vanderbilt Law School in Nashville who studies Treasury market structure and regulation. "The way this is set up is designed to fail. It is exceptionally fragile," Yadav said.

Yadav has just put out a Columbia Law Review article on Treasury market structure and its fragilities which I highly recommend. The picture she paints is alarming:

> The asymmetric distribution of regulatory burdens between primary dealers on the one hand and high-speed securities firms on the other limits opportunities for private cooperation and mutually reinforces risk-taking behavior by both sets of players. Unwieldy public monitoring, combined with a light-touch rulebook, allows all firms to take risks or trade opportunistically with little chance of detection and discipline. Traders can also cheaply exit the market if something goes wrong, limiting how fully they must internalize the costs of their risky behavior. For the less-regulated, nonprimary dealer firms, the regulatory constraints are even weaker, further increasing their financial incentive to seek risk in Treasury markets. Faced with

> diminishing profits and a less lucrative franchise, primary dealers are also incentivized to take risks and shirk self-discipline. So, not only is the task of private oversight logistically harder as the number of traders proliferates and diversifies, but it is also problematic when self-policing would result in primary dealers imposing added costs on themselves in a period of fierce competition and lower profits. The consequences of this regulatory neglect in Treasury markets were apparent even prior to the March 2020 COVID-19 crisis, as a number of disruptions over the years pointed to unaddressed fragilities at the heart of this supposedly failure-proof market.

Regulators have discussed making changes to bolster Treasury market liquidity. There have been recommendations also from the G30.

But progress has been slow and the lack of a centralised Treasury market regulator can cause confusion.

Yadev's first proposal for stabilization would be a binding Memorandum of Understanding between the regulators themselves to create a clearer division of labour between them.

Her second proposal takes up the suggestion from Darrel Duffie for a centralized Treasury clearing house model that would ensure that all major players had skin in the game in ensuring that the market continued to function even at moments of stress.

In the view of Bank of America analysts: "Treasury market size "has outgrown dealer ability to effectively intermediate risk." This then requires an "official-sector role as dealer of last resort.""

Tooze (2021) Global bond market turmoil 2021 - an explainer

Tankus

The role of high frequency traders and hedge funds in 2020's liquidity freeze has gotten a lot of attention. Much has especially been made of the increasing role of hedge funds. I haven't historically focused on this topic because I've felt that it missed the more fundamental issues. The key is that before the international financial regulatory agreement Basel III, dealer balance sheets could expand to an unlimited extent in order to absorb "risk free" treasury securities. I wrote about this multiple times in 2020. Hedge funds, or high frequency traders, backing out of these markets during periods of instability didn't seem to me to be particularly surprising. Nor did I think limiting the extent their balance sheets could expand to absorb treasuries would improve liquidity, even if it did make these institutions "safer".

I don't think any of those conclusions are wrong, but I've become convinced over the past six months that it is interesting in and of itself that these actors have stepped into the breach. Some have become referring to them as "shadow dealers". A recent interesting paper on this comes from Columbia Law professor

Lev Menand and New York Fed Senior Policy Advisor Josh Younger. They focus on the history and current state of the treasury market, with a special focus on repo financing of treasury holdings. Following a lot of the alternative monetary analysis of the last 15 years, they treat repo liabilities as a form of money. That means they come to the conclusion that the U.S. has never stopped "money financing" treasury holdings.

What changed after the Fed-Treasury Accord of 1951 was instead the type of money that financed their holdings and which institutions began holding them (and emitting money liabilities). In short, we went from central banks and banks purchasing and holding treasuries by issuing settlement balances or emitting bank deposits to dealers emitting repo liabilities. The paper, "Money and the Public Debt: Treasury Market Liquidity as a Legal Phenomenon", is well worth a read (and not just because it positively cites me multiple times, including making the argument the paper makes in 2020).

In reading this paper I have become convinced that I have **underrated the role of these high frequency trading desks and hedge funds**. The core issue is one of monetary design, but these institutions reflect that lack of monetary design. Rather than being sideshows, their behavior in recent years reflects the opportunity to partially take the place left behind by more rigid balance sheets of dealers, who remained part of bank holding companies. At the same time, since "shadow" dealers are further outside the reach of the "regulatory perimeter", they don't have the same obligations as licensed dealers. They don't have to regularly participate in treasury markets, and provision liquidity. Nor do they have access to the backstops that licensed government securities dealers have.

These HFT desks and hedge funds run from treasury markets at the first sign of trouble, and that's precisely what they did after SVB failed.

Tankus (2023) I Was Wrong About Post-SVB Treasury Market Strains- Here's Why

Menand and Younger Abstract

The market for U.S. government debt (Treasuries) forms the bedrock of the global financial system. The ability of investors to sell Treasuries quickly, cheaply, and at scale has led to an assumption, in many places enshrined in law, that Treasuries are nearly equivalent to cash. Yet in recent years Treasury market liquidity has evaporated on several occasions and, in 2020, the market's near collapse led to the most aggressive central bank intervention in history. This Article pieces together what went wrong and offers a new account of the relationship between money issue and debt issue as mechanisms of public finance. It argues that a high degree of convertibility between Treasuries and cash generally requires intermediaries that can augment the money supply, absorbing sales by expanding their balance sheets on both sides. The historical depth of the Treasury market was in large part the result of a concerted effort by policymakers to nurture and support such balance sheet capacity at a collection of nonbank broker-dealers. In 2008, the ability of these intermediaries

to augment the money supply became impaired as investors lost confidence in their money-like liabilities (known as repos). Subsequent changes to market structure pushed substantial Treasury dealing further beyond the bank regulatory perimeter, leaving public finance increasingly dependent on high-frequency traders and hedge funds— "shadow dealers." The near money issued by these intermediaries proved highly unstable in 2020. Policy makers are now focused on reforming Treasury market structure so that Treasuries remain the world's most liquid asset class. Successful reform likely requires a legal framework that, among other things, supports elastic intermediation capacity through balance sheets that can expand and contract as needed to meet market needs.

Menand and Younger Conclusion

From the start, the "breadth, depth, and resiliency" of Treasury markets has turned on monetary system design.449 In the 1950s, Fed officials, relying on purchase and sale transactions conducted under their §14 authority rather than on loans extended under §13(3) or §13(13), created a new market for financial instruments (repo) that looked quite similar to, and in several important ways were more attractive than, deposits and other money claims. By providing a liquidity backstop at an administered rate and (eventually) preferential treatment under the Bankruptcy Code, policy makers attracted a broad and diverse group of potential cash providers; regulation of its government securities dealers under an investor protection framework allowed for higher levels of leverage than would be allowed for depository institutions. The result was a curious tension: intermediating Treasury markets was important enough to garner significant public sponsorship and support, but its providers were not systemically important enough to be subject to the same level of prudential oversight as banks. The arrangement led the U.S. financial system down a path towards increased reliance on shadow banking. While many factors contributed to the GFC in 2008, it seems at least plausible that Martin's Fed set in motion a series of events that contributed to what eventually transpired.

The 2010s offered a brief period during which dealer activity was consolidated inside the banking perimeter. That, however, did not ultimately last long in practice. New regulatory requirements that assigned a cost to leverage agnostic of risk once again pushed Treasury and repo intermediation in the direction of non-banks. The players were admittedly different—PTFs and other HFTs taking on one aspect of market making (trade matching), and RV hedge funds the other (inventory management)—they too relied on easy access to cheap and available repo funding for their activities. And once again, that system proved vulnerable to shocks.

The present moment presents yet another opportunity for reflection. It is also a critical phase in the financial history of the U.S. and the dollar. The trajectory of mandatory federal spending points to a secular widening of deficits over the medium- to long-term. Ensuring markets keep pace with that growth remains, as Chairman Martin observed back in 1959, "obviously needed for the functioning of our financial mechanism."450 Absent reform, one possibility is another

panic. That is certainly one way to interpret the second Treasury market functioning event of the post-Accord era: the 1958 funding squeeze, which bears some important similarities to recent events.

A number of reforms have been proposed to reduce the risk of that outcome. Most are aimed to some extent at giving banks a greater role in that market, but they vary in intent and effectiveness. An outstanding question for policy makers is more of a first principles approach: should Treasury intermediation occur inside, rather than outside, the banking perimeter? To the extent that its systemic importance is similar to that of the banking and monetary system more broadly, as recent events and policy responses suggest, locating intermediation within the banking system would appear preferable. It would, however, come with costs, particularly the extraordinary challenge of executing fundamental changes in the market structure and demand base for U.S. government debt. Although there are no easy answers, there is value in clearly articulating the principles and goals against which these costs and benefits will be measured and weighed.

Menand and Younger (2023) Money and Public Debt (pdf)

14.5 Debt-financed growth

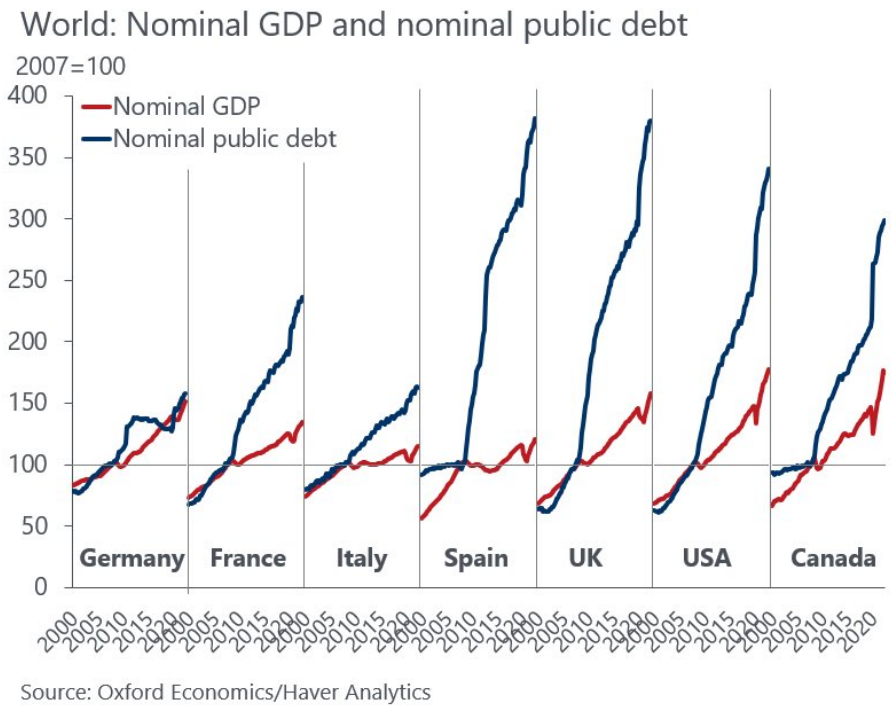
Henrich

Empires of debt.

Germany is constitutionally restricted from going overboard, but still.

The others show you what happens when can kicking is permitted.

Ironically it also shows you that GDP is artificially inflated as it's driven by debt.



Henrich (2023) Empires of debt. (tweet)

Part I

Appendices

Appendix A

About

Dyre Haugen and *Dyrehaugen* is Webian for *Jon Martin* - self-owned Globian, Webian, Norwegian and Canarian with a background from industrial research policy, urban planning and economic development consulting on global, regional and urban scales. I am deeply concerned about the (insane) way humanity (i.e. capitalism) interfere with nature. In an effort to gain insights in how and why this happens stuff is collected from around the web and put together in a linked set of web-sites. The sites are operated as personal notebooks. However, these days things can be easily published to the benefit of others concerned with the same issues. But be aware - this is not polished for presentation or peer-reviewed for exactness. I offer you just to have a look at my 'work-desk' as it appears in the moment. Any comment or suggestion can be mailed to dyrehaugen@gmail.com You can follow me on twitter as @dyrehaugen. Thanks for visiting!

Appendix B

Links

Current Dyrehaugen Sites:

- rcap - On Capitalism (loc)
- rclm - On Climate Change (loc)
- recs - On Economics (loc)
- rfin - On Finance (loc)
- rngy - On Energy (loc)
- renv - On Environment (loc)
- rsts - On Statistics (loc)
- rurb - On Urbanization (loc)
- rvar - On Varia (loc)
- rwsd - On Wisdom (loc)

Blogs:

- rde - Blog in English (loc)
- rdn - Blog in Norwegian (loc)

Discontinued:

- jdt - Collection (Jekyll) (loc)
- hdt - Collection (Hugo) (loc)

Not listed:

- (q:) dhe dhn jrw56
- (z:) rcsa rpad rstart

Appendix C

NEWS

C.1 230319 Silicon Valley Bank

Tooze

One of the underlying frailties of the global banking system right now, are the unrealized losses on bonds incurred by banks as a result of central banks hiking interest rates to combat inflation. As interest rates have gone up, bond prices have gone down. This is bad news, if billions in depositor-withdrawals force you to sell the bonds thus "realizing" the loss. But, if you are not in dire straights, if you are not selling off your portfolio in fire sales, where do you run if the financial world seems to be falling apart (again)? The safe place to run to is … yup … government bonds. They are safe. The market is liquid. Plus, they are cheap right now!

So, a crisis that was triggered in part by bond prices going down, led investors to run into bonds and drive prices back up. A panglossian friend of the markets might say that this is the self-equilibrating invisible hand at work. This is not how it felt last week.

Tooze (2023) Chartbook #203 Banking crises, states of exception & the disappointment of sovereignty - a roundup of last week

C.2 211118 OCC Nominee fight

The Prospect

> "She does not see banks as the clients of the OCC."

After several months, President Biden has finally chosen a nominee to head the Office of the Comptroller of the Currency (OCC), a key financial regulatory post. It's Saule Omarova, a Cornell professor and critic of financial overreach.

Omarova immediately faced a flood of criticism from the banking industry, described as "radical" and "Biden's most polarizing pick for a top financial regulatory job."

Thus far, Omarova has been primarily condemned for musing in an academic paper last year about how individual bank accounts at the Federal Reserve could replace private deposits. The U.S. Chamber of Commerce on Tuesday announced their "strong opposition" to Omarova for precisely this reason.

THE CHOICE OF OMAROVA breaks sharply with precedent for the traditionally bank-friendly office. Established by Abraham Lincoln as a branch of the Treasury in 1863, the OCC is the main regulator for federally chartered banks, overseeing roughly two-thirds of total assets in the U.S. banking system. The agency is self-financed through the inspection fees it charges the banks it oversees, a funding mechanism critics of deregulation have identified as a conflict of interest.

The history of the OCC over the past half-century gives those critics abundant evidence that the agency operates as a bank advocate masquerading as a prudent regulator.

The Prospect (2021) Wall Street's Attacks on Biden Nominee Are a Red Herring

C.3 210421 GFANZ: Low Carbon Banking

Banks and financial institutions with more than $70tn assets have pledged to cut their greenhouse gas emissions and ensure their investment portfolios align with the science on the climate.

In the initiative, chaired by Mark Carney, the former governor of the Bank of England, 160 companies, including 43 banks from 23 countries, will set targets to cut the carbon content of their assets by 2030, in line with an overall goal of net zero emissions by 2050.

The forum, the *Glasgow Financial Alliance for Net Zero*, aims to encourage the financial sector to divert investment towards low-carbon infrastructure and technologies, and to discourage high-carbon investments, ahead of Cop26, the vital UN climate talks to be hosted by the UK in Glasgow this November.

Janet Yellen, the US Treasury secretary, and John Kerry, the US special presidential envoy for climate, are backing the alliance.

GFANZ [will be] the gold standard for net zero commitments in the financial sector. The alliance would not allow banks to "greenwash" their commitments.

However, since the signing of the Paris agreement in 2015 banks have poured at least $3.8tn into fossil fuel financing.

The financial system is fuelling environmental breakdown on a catastrophic scale, and what we really need is for central banks to play their roles as regulators

and take concrete action to prevent all of the firms they oversee from making investments that are incompatible with governments' climate targets.

Banks signing up to GFANZ would be required to show "credible plans" for reducing their investment in high-carbon assets, but would not face a deadline for exiting fossil fuel investment. Advertisement

Officials said there would be no blanket requirements for companies to stop financing coal, for instance, and banks would be allowed to make their own judgments on the carbon content of their portfolios, on a case by case basis.

Guardian

C.4 210406 Biodiversity and Financial Stability

NGFS and INSPIRE launch a joint research project on 'Biodiversity and Financial Stability'

A growing number of central banks and supervisors have recognised the need to extend their focus from climate change to the challenges of addressing the implications of broader nature-related risks and the conservation of nature and biodiversity. Doing this will involve understanding the impact of finance on the provision of key ecosystem services as well as the consequences of biodiversity loss for financial stability.

Companies are highly dependent on the services that ecosystems provide, but may at the same time have a harmful impact on the environment. The financial risks that stem from a loss in biodiversity are a serious threat to the financial sector that urgently require better understanding by policy makers and regulators to which the new NGFS/INSPIRE Study Group will provide an important contribution.

Appendix D

Sitelog

Latest Additions

Bibliography