IGLP Conference on Money Design 2015

1.   How do you define "money," and how does that definition inform your work?

Money is a liability of the banking system and an asset for the "real" economy. Base money is the liability of the central bank, which Keynes (1971) called "money proper". Broad money is the liability of commercial banks in the form of deposits. Money proper is the asset, the transfer of which discharges debt contracts. Deposits can function as means of payment as long as banks are guaranteed access to base money.

In my work, money is first of all a means of payment. This definition of money is consistent with a contract economy as described by Keynes, because it sees money as the "condition of satisfaction" (Searle J. , 1998, pp. 103-4) in fulfilling debt contracts. This contract paradigm is distinct from the exchange paradigm, where money is a means of exchange.

In an exchange economy, money is as token that serves to facilitate the exchange of useful resources (goods and services), but this begs the question, first raised by Menger (1892), why people agree on specific assets as the privileged instrument for exchange. The Chartalist response that money is *fiat* by government order (Knapp, 1924 [1905]) is not satisfactory, for the examples of deviating and circumventing practices of illegal uses of money abound. The monetarist theory that money is printed by governments and dropped by helicopters (Friedman, 1969) justifies the norm of keeping the supply of money in proportion with output in order ensure price stability, but it does not explain why people use money to exchange goods.

I argue with Keynes (1967 [1936]) that money becomes the accepted means of payment because it is "liquidity par excellence". This implies that converting it into other assets involves no loss of value and for this reason money is the privileged medium in which to denominate liabilities. The liquidity property generates utility for those who are in possession of money, and this advantage is expressed by the liquidity premium that is higher the higher is the uncertainty about being able to satisfy the contractual obligations. When this liquidity premium is monetized, it becomes the interest rate for lending money.

Money is a means of exchange when it has purchasing power, and it has this power only because it is scarce. Purchasing power means that the owners of real assets seek to convert them into money (sell them) because they need to hold liquid assets. Hence, their "customers are kings" (and queens), because they possess money, which the can spend as they like and suppliers compete for their custom.

Money is scarce, because it is liquidity par excellence. Scarcity means that there is a structural demand gap over the supply of money that the system generates from within. How this gap emerges is often misunderstood. Neo-chartalists reduce it to the need to pay tax liabilities, but this is only a part of the story. Scarcity of money is the result of the interest claim that borrowers have promised to lenders. At maturity, borrowers require more money than they have borrowed initially. Because money is the liability of the banking system, the only source of obtaining more money is borrowing more from banks and central banks. However, the counterpart of this liability is assets, i.e. claims on resources, so that the expansion of money requires the equal expansion of monetized real assets. Hence, in the long run steady state, the rate of growth of the economy must be equal to the rate of interest.

The contract paradigm of money entails the exchange paradigm as well as chartalist theories. It has therefore broader validity.

2.   Does your definition lead you to prioritize certain institutions as objects of study? Why? How does your institutional focus relate the conceptualization of money and its practices? What do you hope to accomplish by your institutional focus?

The purpose of my work is to explain how it is possible to think that human beings are born free and equal. I argue that the foundation of these norms (not facts) is found in the development of the modern monetary economy, because such an economy, contrary to the exchange economy of classical and neo-classical economists, is based on financial contracts. The normative logic of contracts consists in two parties voluntarily agreeing on the contractual terms, and this requires that they are free to accept or reject; it is this very freedom, which makes them equal. Thus, the development of the contract economy with money and credit generates the social practice through which the norms of free and equal individuals are becoming factual realities.

While the practice of freely making contracts dominates in the private sector of market economies, this is not so for public debt, which has as its counterpart the government's claim for tax income. For this reason, bank money created by credit to the private sector and base money, created by monetizing public debt, have different normative content. This distinction can be modelled as inside and outside money (Gurley, John G., and Edward S. Shaw, 1960), or contract intensive money (Clague, Ch., Ph. Keefer, S. Knack, M. Olson, 1999). My research shows that that the expansion of contract intensive money increases the probability of finding higher political and civil liberties in the world. See annex.

3.   How does your approach to money and its institutions illuminate the travel of value across borders? How do you conceptualize the international (or now global) dimensions of the monetary system given the domestic character of many of its elements?

The contract paradigm of money explains why and how the contractual norms of freedom and equality are propagated across the world. The growth of the monetary economy, which is associated with the interest claim on credit, is crowding out *norms* of traditional economies and political holism in the sense of Popper (1995). This creates tensions and conflicts between traditional and modern normativity, which often will interrupt the progress of economic, political and social modernization when the twin-norm of equality is factually violated. For this reason, social welfare and redistributive social systems are a necessary correlate for the foundation of modern norms of liberty and equality.

One implication of this analysis is that promoting a properly functioning monetary economy is a necessary condition for the acceptance of modern liberty, equality and human rights. Tongue in cheek and somewhat provocatively I may say that the IMF has done more for the promotion of modern liberty than Amnesty International! But this we may discuss.

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Annex from Chapter 1, The Political Economy of Liberty and Money (work in progress)

Contract-intensive money (CIM) is a concept first developed by Clague et al. (1999), and serves us as an indicator for the use of financial contracts in the monetary economy. CIM is defined as the ratio of non-currency money to the total money supply, or (M2-C)/M2, where M2 is a broad definition of the money supply and C is currency held outside banks.[1] Thus, contract-intensive money is money generated by financial contracts between financial institutions and the public at large.

I will formally test the hypothesis that a contract-intensive monetary economy contributes to higher degrees of liberty. However, we must also pay heed to the alternative hypothesis, formulated by Milton Friedman (2002), whereby it is economic liberty in a broad neo-liberal sense that generates political and civil liberty. Economic liberty is measured by the Heritage Foundation Index, covering four groups of liberty: Rule of law (property rights, freedom from corruption); Government size (fiscal freedom, government spending); Regulatory efficiency (business freedom, labor freedom, monetary freedom); and Market openness (trade freedom, investment freedom, financial freedom). Our dependent variables are the Freedom House indices for political and civil liberty. Political and civil liberties should develop together, but I also test for the impact of illiberal democracy (ID) and tolerant authoritarianism (TA).

I calculate a probit model, where the dependent variable is the dummy=1 for an improvement and zero for no improvement in political rights (PR) and civil liberties (CL).[2] We cover 87 countries over the period 1975 to 2010, split into 5-year sub-periods. The regressors of our econometric model are lagged logGDP per capita (in PPP), the lagged Heritage Foundation indicator for economic liberty (ECL) and gaps between political and civil liberty, with two year lags. The lagged ECL variable allows us to test for the Friedman hypothesis that economic liberty as such, rather than money, would increase political and civil liberty. The gap between PR-CL estimates whether the effect of illiberal democracy and tolerant authoritarianism will improve liberty.[3] A negative coefficient means that the probability of improving the liberty index is diminishing.

Table 1.2 shows the results. Column 1 and 5 show the base model for political rights and civil liberty. The negative impact of lagged GDP is consistent with a catching up story whereby richer and economically free countries have already high levels of political and civil liberty so that the probability of improving liberty diminishes, while in poorer countries it is more likely that there will be an improvement.

Surprising effects are observed for the marginal impact of money, economic liberty and the gaps between political and civil liberty. First of all, money matters. On average a 10% increase in contract-intensive money will increases the probability of a positive improvement of political rights by 3-4 percentage points. Secondly, while the impact of the monetary economy (CIM) is always positive, this is not true for economic liberty in general (ECL). The sign of the ECL-coefficient is always negative and statistically significant. This would imply a clear rejection of the Friedman hypothesis. However, it could be that the linear model hides some non-linearity. In the other columns we therefore report results which introduce non-linearity and interaction terms for ECL.

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[1] Data are obtained from IMF International Financial Statistics.

[2] I thank Piero Esposito for research assistance. We also checked a logit mdel, but the Log likelihood is slightly higher for the proobit model.

[3] The Freedom House index for these liberties ranges from 1 (totally free) to 7 (not free). By contrast, the Heritage Foundation index for economic liberty (ECL) goes from 0 to 100.

Column 2 and 6 add the squared log of the ECL-term. Both variables have coefficients with negative signs, which implies upward concavity. By equalling the derivative to zero the turning point is at -1.21 in mean deviation; given that the sample mean is 6.05 the impact of ECL is positive for ECL<6.05-1.21=4.85. This means that for values of less than 4.85 on the scale of the Heritage Foundation Index, the impact of improving economic liberty will actually improve political rights and civil liberty, but above this value it will lower it.[4] Hence, for countries with repressive political regimes, economic opening would improve political rights and civil liberty, although in more advanced countries neoliberal reforms à la Friedman or Hajek would lead to a loss of political and civil liberty. On the other hand, the coefficient for contract-intensive money (CIM) is always positive, although it becomes statistically less significant when we introduce non-linearity for ECL. The effect is still significant at the 10% confidence level for political rights, but not for civil liberty. Thus, at low liberty levels, economic and monetary reforms work together, but for more developed countries it is a well-functioning monetary economy and not neoliberalism that generates more liberty.

Column 3 and 7 look at the possible interactions between economic liberty (ECL) and illiberal democracy (ID) and tolerant authoritarianism (TA). These two regimes apply primarily to countries with intermediary liberty degrees. The ID and TA coefficients are the fixed effects of having one of the two regimes. The highly significant positive coefficients for illiberal democracy raise the probability for political and civil liberties, but the negative coefficient for civil liberty (column 7) in the regime of tolerant authoritarianism indicates that this regime lowers the likelihood of civil liberty improvements. However, because the coefficient is slightly lower for civil liberty than for political rights, there is a slow long-run tendency for illiberal democracy to correct itself. On the other hand, tolerant authoritarianism has only weakly significant effects on political rights, but stronger effects on civil liberty. However, the coefficient for civil liberty is negative, which means that tolerant authoritarianism (which is a gap of PR-CL < 0) will increase civil liberties, thereby reinforcing tolerant authoritarianism. Interestingly, the interaction of economic liberty with illiberal democracy is insignificant, but it has a positive effect on both forms of liberty in a regime of tolerant authoritarianism. The interaction TA*ECL is positive and must be read as difference with the basic coefficient of ECL; so for example in column 3 the impact of ECL is -0.076 for the non-TA group while for the TA group it is -0.076+0.093=0.017. The same logic applies to column 7. We conclude that in tolerant authoritarianism the negative effect of ECL is not present, and if there is any, it is weakly positive; hence, economic and civil liberties increase the probability of higher political rights in TA-type regimes. However, the size of the coefficients for CIM is significantly higher than the combined ECL coefficients, and even if the statistical reliability is slightly weaker, the probability of liberty, especially political liberty, improving due to monetary economics is *at least* more than 8 times as high as that for neoliberalism.[5]

Finally, column 4 and 8 check whether it makes a difference if a country is partially free or unfree and also measures the impact of economic liberty. As before, the fixed effects alone imply a significantly increasing probability of improving both PR and CL for low liberty countries. However, this effect is diminishing as countries move up in the liberty index (coefficients for *Unfree* countries are higher than for *Partially free*); this is a typical catch up phenomenon. The interaction terms indicate that with respect to the group of free countries (the non-interacted ECL term), where the effect is negative (-0.146) partially free countries have, again a null or slightly positive impact (-0.146 + 0.168 = 0.022 though

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[4] This is the list of countries, where increases in economic liberty would have raised political and civil liberty, is shown in the annex to this chapter.

[5] While in column 3 the combined effect for ECL is 0.017, subtracting the standard error for CIM from the mean gives 0.333-0.194=0.239

probably not significant). An even weaker effect is exerted on CL in column 8 (-0.164 + 0.172 = 0.008). For Unfree countries the effect of ECL is negative or at best not significant.

Summing up, our various specifications provide solid support for the thesis that a monetary economy with high volumes of credit contracts is likely to generate political rights and civil liberties. The channel is stronger with respect to political rights. The traditional Friedman hypothesis finds some support for low partially free countries, but is clearly rejected for the higher degrees of liberty. The reason for this counterproductive performance of neoliberalism in advanced countries may well be due to the fact, that the Heritage Foundation/Wall Street Journal Index only focuses on economic liberty, which – if unconstrained – may increase inequality and thereby cause political backlashes that reduce overall liberty. Our results also put into question Zakaria's (2007) thesis of growing illiberal democracy regimes.

Table 1.2 Marginal impacts from Probit estimates

	Probability of a positive change in PR				Probability of a positive change in CL			
	1	2	3	4	5	6	7	8
GDPpc (ppp)	-0.060	-0.049	-0.058	-0.023	-0.066	-0.056	-0.065	-0.033
	[0.022]***	[0.022]**	[0.021]***	[0.022]	[0.019]***	[0.019]***	[0.019]***	[0.019]*
CIM	0.412	0.336	0.333	0.345	0.342	0.283	0.278	0.292
	[0.195]**	[0.197]*	[0.194]*	[0.192]*	[0.172]**	[0.174]	[0.175]	[0.166]*
ECL	-0.055	-0.066	-0.076	-0.146	-0.047	-0.062	-0.058	-0.164
	[0.022]**	[0.024]***	[0.026]***	[0.039]***	[0.020]**	[0.022]***	[0.023]**	[0.045]***
high ID	0.346	0.314			0.269	0.241		
	[0.145]**	[0.144]**			[0.116]**	[0.116]**		
low ID	0.129	0.121			0.119	0.113		
	[0.055]**	[0.055]**			[0.045]***	[0.045]**		
low TA	0.047	0.038			-0.121	-0.127		
	[0.047]	[0.047]			[0.047]***	[0.046]***		
high TA	0.174	0.149			-0.077	-0.098		
	[0.095]*	[0.095]			[0.093]	[0.093]		
Lecl_sq		-0.027				-0.024		
		[0.012]**				[0.011]**		
ID			0.151				0.14	
			[0.056]***				[0.046]***	
TA			0.079				-0.098	
			[0.044]*				[0.044]**	
ID*ECL			-0.02				-0.017	
			[0.052]				[0.042]	
TA*ECL			0.093				0.074	
			[0.039]**				[0.038]**	
Partially Free				0.29				0.345
				[0.056]***				[0.064]***
Unfree				0.375				0.375
				[0.063]***				[0.071]***
PF*ECL				0.164				0.172
				[0.046]***				[0.050]***
UF*ECL				0.103				0.106
				[0.057]*				[0.059]*
N	494	494	494	494	494	494	494	494

Standard errors in brackets; * significant at 10% level, **significant at 5% level; ***significant at 1% level. GDPpc=per capita GDP in PPP; CIM=contract intensive money; ECL=economic and civil liberties index; High ID=high level of illiberal democracy (difference between PR and CL=-2); Low ID= low level of illiberal democracy (difference between PR and CL=-1); High TA=high level of tolerant authoritarianism (difference between PR and CL=2); Low TA= low level of tolerant authoritarianism (difference between PR and CL=1); Partially Free=average between PR and CL between 2.5 and 5; Unfree= average between PR and CL above 5;