

Capacity, Trade and Credit: Emerging Architectures for Commerce and Money

08:00 to 10:00, Thursday, 8 December 2011

City of London Corporation
Basinghall Suite, Guildhall Art Gallery
Guildhall, London EC2V 7HH

Opening Remarks

Professor Michael Mainelli, Executive Chairman, Z/Yen Group



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"Zest for Enlightenment"

Capacity, Trade & Credit: Emerging Architectures for Commerce and Money

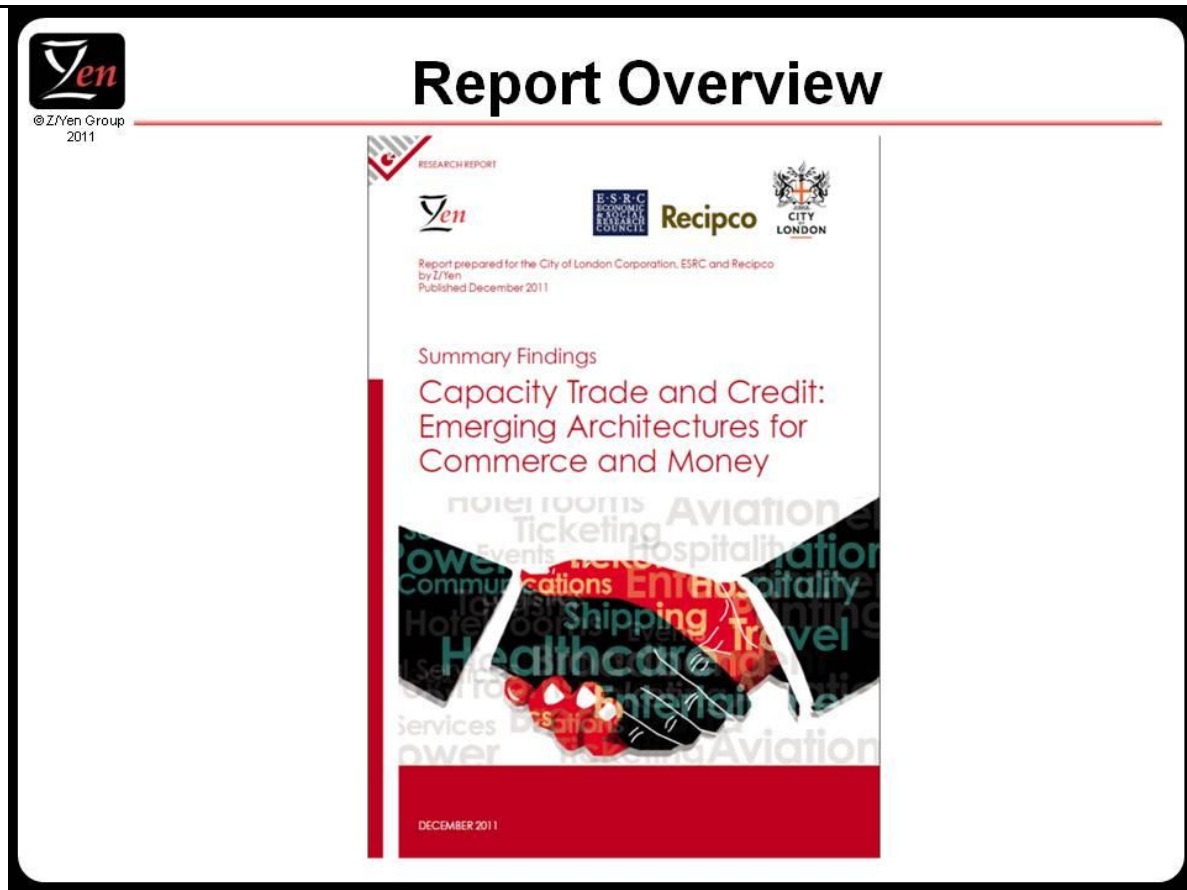


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8 December 2011

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Good morning my Lord, Aldermen, Councillors, Ladies and Gentlemen. It is a delight to have the opportunity to present the conclusion of six months of fascinating research. I hope that our discussions this morning do raise some interesting pointers for ways in which more creative approaches to capacity, trade and credit might benefit our wider economy.

Our research explored the feasibility and benefits of establishing a capacity exchange or hub of capacity exchanges in the UK. The research concluded that multilateral reciprocal trade using common tender is an emerging sector with the potential to create complementary credit systems alongside traditional financial credit that should increase trade and economic growth, as well as wider social benefits, and that a clearer, more solid regulatory framework might encourage more rapid development.



Project Background

- ◆ June to November 2011
- ◆ Team – Z/Yen, UCL, 8 experts, 9 advisory board members
- ◆ Wider support – Gresham College, LSE
- ◆ Approach – literature reviews, interviews, survey (26 capacity exchanges in 9 countries), simulation, data analysis
- ◆ Symposium at Gresham College on the dimensions of trade and credit
- ◆ Survey of 26 existing retail barter and trade exchanges in 9 countries

First, the background to the project. The project lasted from June to November 2011 and included:

- ◆ semi-structured interviews with 66 interviewees from a range of sectors and two expert workshops;
- ◆ a symposium at Gresham College where 20 participants focused specifically on the dimensions of trade and credit.
- ◆ a survey of 26 existing retail barter and trade exchanges in 9 countries;
- ◆ statistical analysis of national trade and capacity, as well as the credit requirements of the top 500 international firms by market capitalisation;
- ◆ modelling of possible trading dynamics and behaviour within one particular model of capacity exchange.



What Is A Capacity Exchange?

A membership-based system within which companies can trade available capacity in the form of goods, services and infrastructure within and across industries, using common tender as a medium of exchange.

So, what is the big idea behind a “capacity exchange”? The term ‘capacity exchange’ is largely undefined in both business and academia. Conceptually, a capacity exchange is a formal mechanism to facilitate ‘barter trade’, ‘cashless trade’ or ‘non-monetary trade’, where member companies use their own goods and services to finance the purchase of other goods and services.

Capacity exchanges are marketplaces where members exchange goods and services with each other using a system of mutual credit based on a common tender such as trade ‘pounds’, trade ‘dollars’ or trade ‘credits’. Common tender can only be ‘spent’ on the exchange, pays no interest and cannot be redeemed for cash. This design encourages re-participation within the system and, furthermore, implies that every buyer must also be a seller and vice-versa. The report refers to ‘multilateral reciprocal trade’ to describe a sector where trade takes place between three or more participants and is facilitated by a means of exchange other than a sovereign currency; and where the means of exchange is backed by the goods and services of the trading participants and is not necessarily convertible to cash, leading to our definition of a capacity exchange:

A membership-based system within which companies can trade available capacity in the form of goods, services and infrastructure within and across industries, using common tender as a medium of exchange.



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Multilateral Reciprocal Trade Is Big

Goods/Services	Location	Value (US\$)
Communication equipment	Europe	1,500,000
Rubber	Europe	1,320,000
Communication equipment	Europe	6,000,000
Software upgrade	Europe	7,000,000
Rechargeable batteries	Europe	650,000
Transport planning	Philippines	60,000
Coconut oil	USA	15,000,000
Copper cathodes	Singapore, China	15,000,000
Public relations	Philippines	100,000
Coconut oil	South Africa	1,900,000
Cordless phones	USA	5,800,000
Radar detectors	USA, Netherlands	1,500,000
Garments	Europe	7,800,000

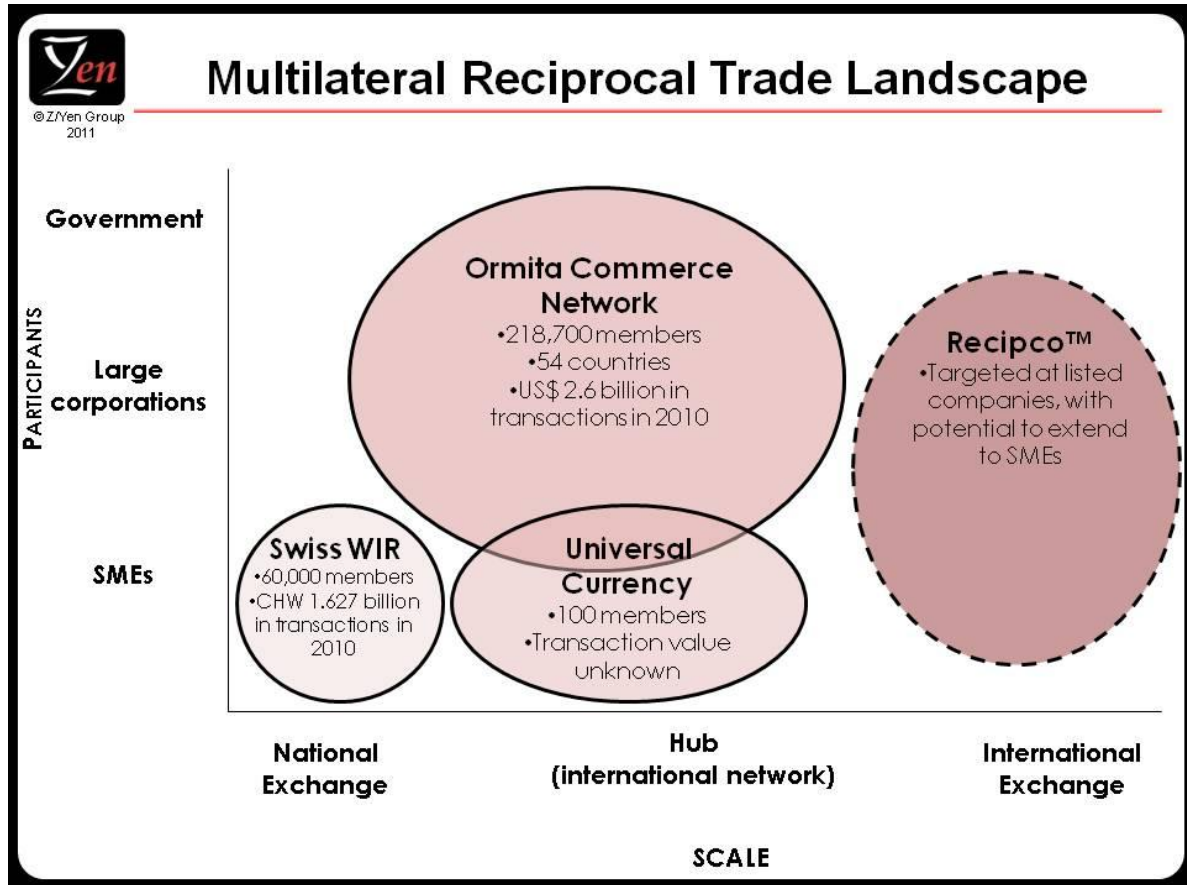
This definition led us to examine the three elements in the title, capacity, trade and credit. It's important to get up front the scale of non-monetary trade that underlies the idea of capacity exchanges. Regularly quoted figures state that countertrade accounts for 20% or more of world trade, involving some 90 countries and accounting for US\$100 to US\$150 billion (Platt, 1993; Carter, 1997). The figures probably understate the scale of countertrade, and are ambiguous on retail barter and corporate barter. Many trade statistics are based on declared values of goods landed or exported, which may not be the figures that suit taxation targets. Many trade statistics don't cross-reference values to gross tonnages or sample quality and value. Some commentators suggest higher figures, such as the US Department of Commerce's 25%, while some scholars suggest perhaps as high as 50% in some trading sectors of Eastern European and Third World Countries. It's huge.

In London, with huge financial markets based on precise financial market figures, often derivatives in turn based on other financial market numbers, it's sobering to remember that physical trade measurement can be coarse with an amount of heterogeneous goods leaving one market in exchange for another diverse set of goods or services. Yet this physical trade is the underlying movement that spawns a diverse range of financial markets, not least the foreign exchange and commodity markets.

We set out in the report some background to capacity and trade, but I believe that the most interesting portion of the report looked at how the idea of common tender interacts with other types of money, principally fiat currencies.

Capacity exchanges that issue common tender are creating money. In these times when banks aren't lending, these exchanges are actually creating credit. There was a credit

crunch joke doing the rounds a year or so ago – The chancellor goes on television: “I have good news and bad news. The good news is, we have enough money to create a vibrant economy. The bad news is, it’s still out there in your pockets.” Capacity exchanges have taken this joke to heart and try to generate trade by providing the trust and confidence needed for real exchange. As Ed Nell notes, “To the extent that uncertainty over promises can be eliminated, credit can replace money.” [Nell, 1998, page 159]



Some real examples of capacity exchanges? We wanted to focus on larger capacity exchanges, but significant local community exchange movements include the anglo-saxon Local Exchange Trading Systems (LETS), the French SEL (système d’échange local) and the Argentinean Global Trading Network of ‘barter clubs’. Many capacity exchanges don’t last. We found evidence of tens of failed exchanges and people in the industry reported much higher figures going into the hundreds - tiny exchanges that failed to reach critical mass, or exchanges that issued more common tender than was sensible, and collapsed through loss of trust, often in clouds of scandal.

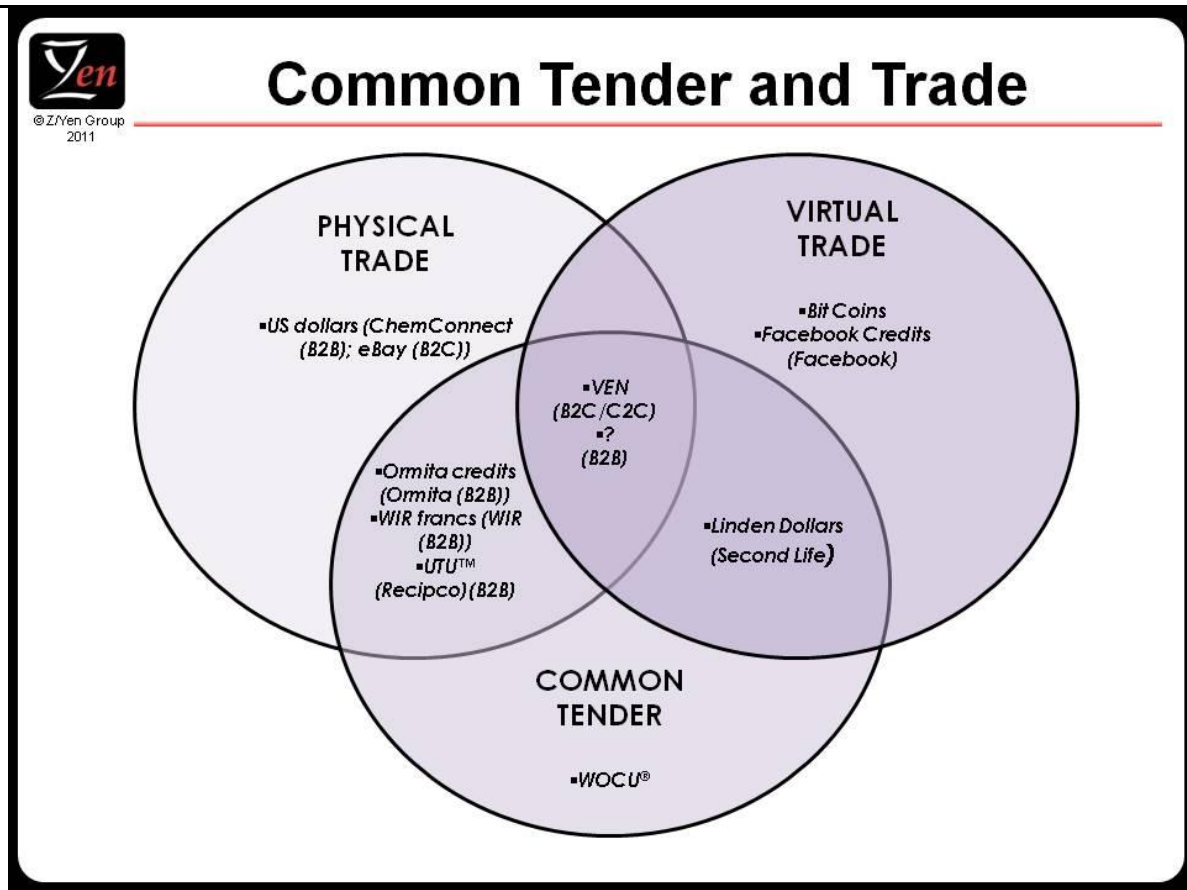
To help you understand the landscape, I’d like to highlight two examples of successful, large scale capacity exchanges and two interesting propositions. The first example well worth highlighting is the Swiss WIR. WIR is a cooperative bank facilitating multilateral trading between, and extending credit to, member SMEs. Founded in 1934, the WIR Wirtschaftsring-Genossenschaft (economic circle cooperative) was set up as a result of the adverse economic and monetary conditions resulting from the Great Depression. It was conceived as a way to stimulate trade and create purchasing power between participants, primarily SMEs, thereby enabling local economic growth and reducing unemployment.

WIR Bank first acts as a “central bank” issuing its own currency – the WIR franc (CHW), which is pegged to the Swiss franc (CHF) and released to members through loans and mortgages backed by collateral, plus the willingness of a community to accept the money as a payment for goods and services. Second, WIR Bank acts as a “commercial bank” subject to relevant banking regulations in Switzerland. Third, WIR Bank acts as a “trade facilitator” by providing the WIR platform through which WIR members exchange goods and services with each other using the WIR franc as a partial or full means of payment. Today, 60,000 SMEs, one in five, in Switzerland is a WIR member. They traded CHW 1.627 billion in 2010, representing circa 0.3% of Swiss GDP and generated about the same again in CHF transactions, some 0.6% of GDP. Using 56 years of WIR data on participants, CHW in circulation, turnover and credit, Stodder (2009) demonstrates the counter-cyclical nature of WIR credit, showing that WIR credits are most likely to be accepted when ordinary money is in short supply and suggesting that WIR is an instrument of macroeconomic stabilisation.

A more recent arrival is Ormita Commerce Network. Established in 2001, Ormita was originally a software provider for corporate and retail barter trade platforms, but subsequently acquired some of those platforms and now operates a franchise model allowing members to trade across an international network of exchanges. Ormita’s worldwide network handles annual transactions worth over US\$2.6 billion in 2010, with a presence in over 54 countries and offices in 24 countries. Ormita use a very broad definition of barter, claiming that the top spot is held by Deutsche Bank’s countertrade desk in London. Ormita works with governments, state owned enterprises, Fortune 500 companies, publicly listed companies and a handful of carefully selected private corporations. As of July 2011, Ormita counted over 218,700 members, of which government organisations account for 15%, media companies for 20% and other corporate entities for 65%.

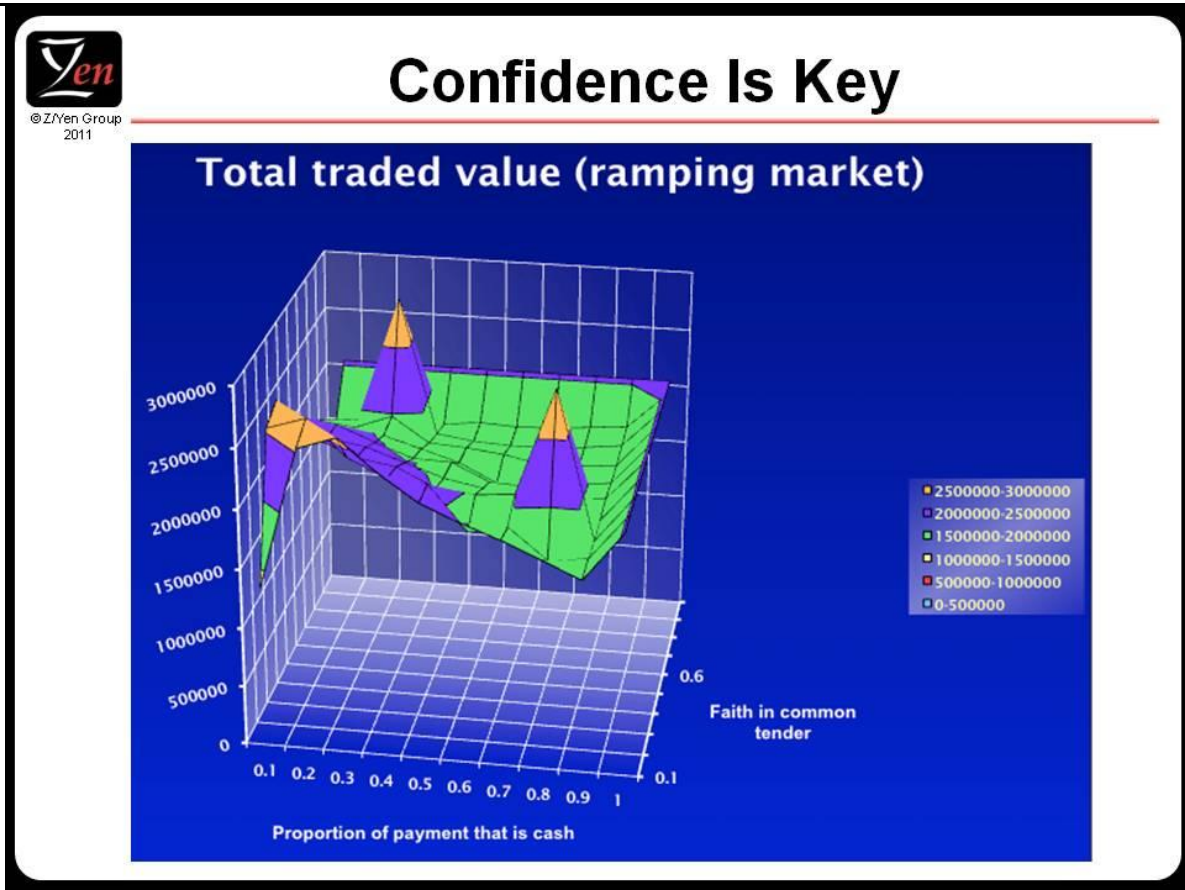
And there are some interesting proposals too. Established by the International Reciprocal Trade Association (IRTA) in 1997, Universal Currency (UC) is ‘a trade exchange for trade exchanges’ where members can trade with each other using a common tender. Universal Currency currently has 100 member companies, 86 of which are also members of IRTA. The innovative proposition is the attempt to evolve from retail barter exchanges towards an international monetary system.

One of the report’s sponsors, Recipco, also has interesting thoughts on how to make capacity exchanges work. Recipco’s offering differs from conventional retail and corporate barter in that it focuses on ‘global non-monetary trade’, with the aim of attracting Fortune 500 companies. As well as a global electronic marketplace – Recipco Capacity Exchange – Recipco propose a more robust form of common tender – the Universal Trading Unit (UTU) with a member-backed facility – RecipcoClear – which ensures the integrity and liquidity of the UTU. Contrary to most common tender in the existing multilateral reciprocal trade industry, the value of the UTU is not defined by the cash-equivalent value of the goods and services traded in any transaction, but by an algorithm that takes into account weightings of five major sovereign currencies.



Constrained credit supply has led some businesses to seek new credit sources in order to maintain trading activity. What makes all of this particularly interesting is questioning our conventional thoughts on money. Another financial crises joke runs, “I went to the ATM this morning and it said ‘insufficient funds’. I’m wondering is it them or me?” Common tenders take this observation into their own hands and create credit. A firm is built on its ability to contract credibly on its future capacity to produce. Capacity exchanges can transform trade credit into pledgeable income. If that pledgeable income is additional to government credit, then the overall system will be more diversified, countercyclical to sovereign currency credit cycles, and possibly more resilient, e.g. the Swiss experience with the WIR.

There are numerous other B2B and B2C exchanges using fiat currency and we have spoken of Ormita, UTU, UC and WIR. Yet alternative currencies were emerging in virtual worlds long before the crises. While noting the older Linden dollars of Second Life, we have seen some interesting headlines this year on new currencies such as Bitcoins or Facebook credits. We’ve also seen private sector proposals for basket currencies such as Wocu. There have been attempts, such as the Ven, to combine online and real-world markets, but it is notable that as yet no strong B2B non-fiat-currency has emerged.



In the report we note that multiple currencies are not without cost. The evidence for multiple currencies being a help or a drag on trade is mixed. It's not hard to find examples of successful multi-currency environments. Still, trust in currency is crucial and fiat currencies seem to hold the edge, even as faith collapses, over private alternatives, though a number of gold bugs might want to enter into this discussion. The report contains recommendations for future research, ranging from systematic data collection on multilateral reciprocal trade to dynamic economic models of capacity, trade, credit and money. But just taking forward research on common tender modelling would help develop design parameters for common tender systems that might help capacity exchanges see the UK as an intellectual hub for their industry. During the project we modelled with UCL relatively simple scenarios of a fiat currency and a common tender under different degrees of confidence. We failed to find a simple landscape.



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Options & Benefits

	Option 1 Small - several UK exchange start-ups	Option 2 National - UK capacity exchange	Option 3 Multinational - capacity exchanges based in the UK
Direct benefits			
Exchange jobs	25 to 100	70 to 300	200 to 500
Increased credit	£20 million to £250 million	£15 billion to £80 billion	£25 billion to £160 billion
Wider markets - increased sales	£2 million to £25 million	£5 billion to £20 billion	£10 billion to £60 billion
Capacity utilisation	£250 million to £3 billion	£8 billion to £20 billion	£50 billion to £200 billion
Participants' jobs	100 to 200	50,000 to 150,000	200,000 to 650,000
Hedging savings	nil	nil	£5 million to £30 million
Wider benefits			
Improving in-kind donation effectiveness	unlikely	likely,	likely
Less volatile economy	nil	£50 million to £1 billion	£100 million to £2 billion
Sustainability benefits			
Reduced wastage	small	high	high
Reduced storage	nil	small	small

So what might capacity exchanges mean for the UK? We examined three options. In Option 1 several UK capacity exchange start-ups are established in the UK. Several hundred SMEs trade on these exchanges at some frequency. Job creation is minimal, and other benefits are relatively small, but there is no reason to impede it. In Option 2 a leading national capacity exchange emerges in the UK, a UK WIR if you will. By 2020, such a national capacity exchange could increase credit supply by between £15 billion and £80 billion, generate between £5 billion and £20 billion of annual increased sales and with some bold assumptions create between 50,000 and 150,000 jobs. A Swiss model scaled up for the UK is exciting. In Option 3 several multilateral capacity exchanges operate internationally but are based in the UK due to a favourable climate. The breadth and scale of formally recognised trading in London includes foreign exchange, shipping, capital markets, commodity markets and insurance markets. London should be an ideal location for capacity exchanges. A highly optimistic estimate might be that, if a hub of capacity exchanges in London took a 20% share of an assumed £160 billion multi-sector global capacity exchange market, then based on a rough 5% operating cost ratio the hub could comprise operational businesses with turnover of £1.6 billion creating as many as 7,500 jobs to 15,000 jobs. It is important not to overstate the benefits that a capacity exchange might bring. The only long-lived, multilateral reciprocal trading system of scale on which to base conclusions is the Swiss WIR, while most other efforts are small or short-lived or both.



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Regulatory Models

	Self-regulation	Government regulation	Standards regulation
Governance	Membership	Government	Stakeholders
Monitoring	Variable	Inspection	Regular
Feed-back	Conformist	Sanction	Reputation
Feed-forward	Reactionary	Political	Evolutionary
Process	Minimal	Inquisitory/ Adversarial	Service purchase
Quality	Asserted	Budgetary	Published
Costs	Subscription	Levy	Market

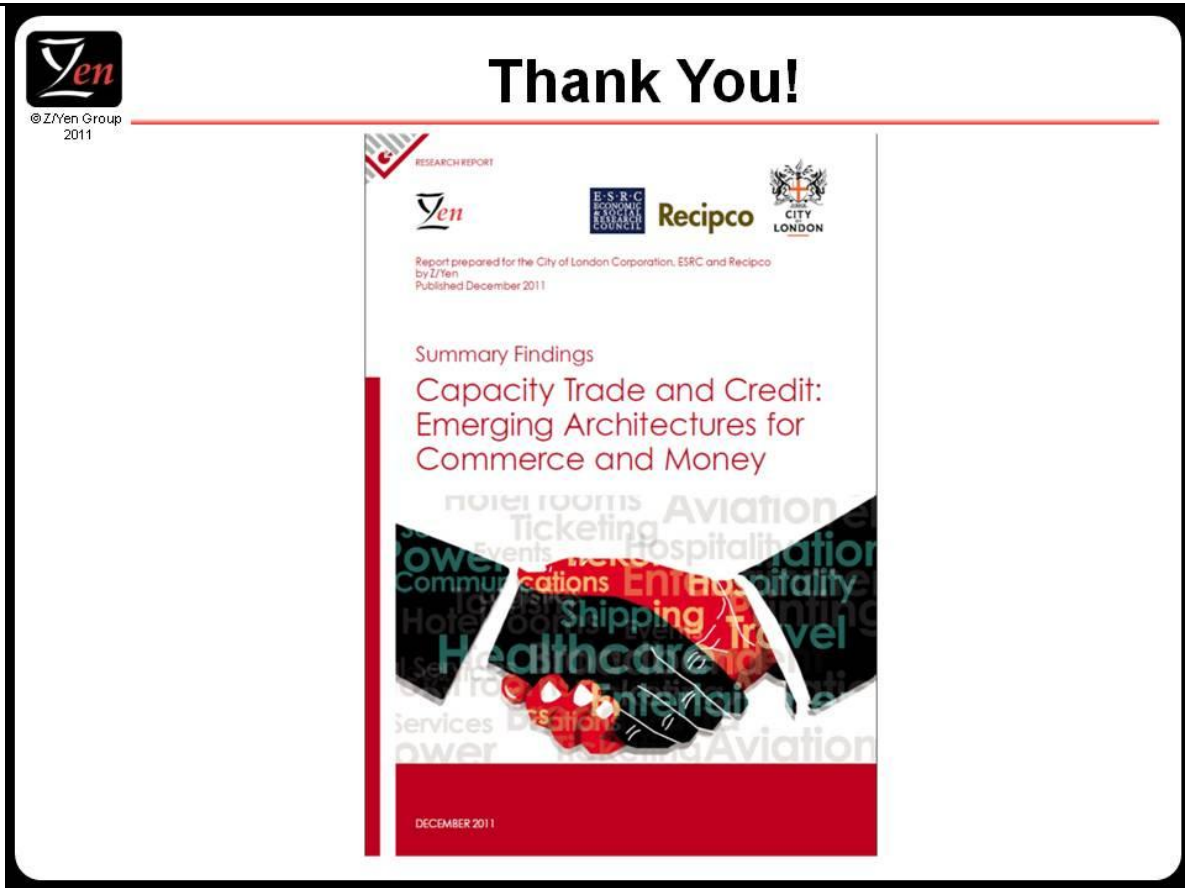
But if Options 2 and 3 are desirable, what might we recommend? Many participants in the sector hanker for the legitimacy of regulation. Two things might be regulated, the issuance of common tender and capacity exchanges themselves. Capacity exchanges fall under a lot of existing trade regulations, so of the two, regulating the issuance of common tender is probably the most interesting. Three regulatory models might suit the multilateral reciprocal trade sector – self-regulation, government regulation or standards regulation. Two trade bodies – IRTA and the National Association of Trade Exchanges (NATE) – are attempting to self-regulate through lobbying, professionalization of trading and certification, but common tender standards are weak. Government regulation would be problematic given the many demands on financial regulators already. However, in the report we explore, and I would encourage consideration of, a standards market approach to issuing common tender. Think of a kitemark for a good common tender, a good currency guide like the good pub guide. This could be a voluntary, yet rigorously audited market, akin to Corgi gas or ISO9000. Such certification might apply to a number of ‘currencies’ ranging from online credits to airmiles to loyalty schemes. A declaration by a government that it has a structured view on regulation for common tender might attract capacity exchanges and novel common tenders.

Policy recommendations	Options
1. Improve understanding of multilateral reciprocal trade	Government monitoring and information disclosure (statistics)
2. Regulation – common tender	Government regulation or government support for standards market regulation
3. Regulation – capacity exchange	Government regulation or government support for standards market regulation or self-regulation
4. Establish a centre of excellence through an ‘office of capacity exchanges’	Support: <ul style="list-style-type: none"> ◆ networking, research, technology, economics, education... Guidance: <ul style="list-style-type: none"> ◆ insolvency and wind-up arrangements, client asset protection, anti-money laundering regulations, anti-counterfeiting, e-commerce and payment initiatives...
5. Integrate capacity exchange hub policies with wider government policies	Integration: <ul style="list-style-type: none"> ◆ government procurement, promotion, technology & research, immigration, competition...

So, if policy makers like Options 2 and 3, we suggest five areas that might help establish a vibrant national or international industry.

1. Policy makers are generally unfamiliar with multilateral reciprocal trade, so improve understanding of multilateral reciprocal trade – largely by collecting better statistics.
2. Common tender regulation – consider certification or kitemarks.
3. Capacity exchange regulation – consider, but possibly unnecessary or too early.
4. Demonstrate intent by establishing a centre of excellence through an ‘office of capacity exchanges’.
5. Integrate capacity exchange hub policies with wider government policies.

Before I close, I must offer my, and my team’s, sincere thanks to many people. First, to the many many interviewees, contributors, panellists, experts and advisory board members, we thank you for all of your help. Second, Gresham College and Long Finance for providing facilities, contacts and sponsoring our symposia. Third, for giving us an incredible opportunity to explore some innovative concepts in important, yet oft neglected, areas of commerce, our three sponsors, Recipco, the Economic & Social Research Council and, most especially, our sponsors and hosts today, with a long track record of taking the long view, the City of London Corporation.



In closing, I'd like to suggest that this report illuminates ignored, but crucial, important areas, yet is just a start. Multilateral reciprocal trade is an emerging sector that has the potential to create complementary credit systems alongside traditional financial credit. Capacity exchanges are clearly at an early stage of development, but appear to have the potential to increase trade and growth, and to provide wider economic and social benefits. As we point out in Long Finance, the key question for our times is "when would we know our financial system is working?" Clearly, this report indicates that one indicator is when there is an appropriate amount of credit for sustainable commerce. Capacity exchanges might just provide that additional credit.

Thank you.