

# Could online marketplaces tackle poverty?

**Viewpoint**  
Informing debate

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This *Viewpoint* explores the case for 'national e-markets', which could create economic opportunities for people in poverty. These would be safe, convenient, accessible Internet marketplaces with ultra-low overheads. The private sector alone cannot create these marketplaces, but they could quickly be realised using the same model that created the National Lottery.

## Key points

- Every day in Britain, £100m+ of potential resources are wasted.<sup>1</sup> These untraded resources are the spare hours when people, or their possessions, could be hired. Examples include a babysitter's time, hire of a neighbour's bicycle or small short-term cash loans.
- There is demand for these assets, but no market efficient enough to trade them. Overwhelmingly, these resources belong to people at the bottom of the economic pyramid.
- Creating marketplaces to trade these diverse offerings as cheaply, instantly and safely as possible requires certain steps. Bringing these assets into the economy requires:
  - far more sophisticated marketplaces than sites such as eBay, Craigslist or Gumtree, which dominate today;
  - significant scale.
- The private sector alone has failed repeatedly to create the marketplaces needed. Government should not fund, design, build or operate such marketplaces, but it could:
  - act as a catalyst;
  - provide a regulatory framework and access to validation procedures;
  - divert public spending to local communities through the new markets, which could incentivise the private sector to create regulated markets in return for a small cut of each transaction.
- Positive results for government could include:
  - a new tool for tackling worklessness;
  - more precise public services;
  - a new model for skills;
  - benefits efficiencies.
- The Government has taken steps in this direction. In 2005 it commissioned marketplaces for the 'Slivers-of-Time Working' programme, which addresses the needs of economically inactive people who could work odd hours for local employers.

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# Introduction

Imagine you were willing to pay someone to clean your kitchen after a party last night. The task would take about an hour. The person has to be reliable, competitively priced and immediately available. Assuming you did not already know an eligible person, how would you fulfil that requirement?

Phoning around agencies, posting on websites or placing a local advert would quickly reveal the disproportionate overheads – in time, uncertainty and money – involved. It would be less effort to clean the kitchen yourself. That is a wasted opportunity. There could easily be a neighbour who would do the work reliably at a rate you would be willing to pay. That hour of your neighbour's time is one example of the resources which are so small, risky and complex to trade that they barely appear in the legitimate economy at present.

These small assets, available at irregular times, can be divided into four groups:

- **Formal work** – retailers, caterers, leisure companies, home care providers and local authorities all need reliable, cost-effective, top-up workers for sporadic peak periods that may only last an hour or two. Jobcentres and recruitment agencies cannot broker these odd hours of work without prohibitive overheads.<sup>2</sup>
- **Local services** – babysitting, ironing, making local deliveries, cooking meals for collection and car valeting are all local services currently filled relatively expensively through provider companies or agencies. With the right controls, these services might be obtained more cheaply, quickly and safely if bought directly from a verified local person.

- **Hire of goods** – home storage, bike hire, blanket-on-the-floor overnight stays, rental of video game consoles and pet shares are among the services brokered by an evolving array of single purpose websites. With a stable, ultra-low overhead marketplace for hundreds of such services, there could be an explosion in this kind of use of possessions when not required by the owner.
- **Borrowing cash** – even the least well off person may occasionally have £5, £10 or £20 they would like to lend, for interest, for a few days. Sites such as Zopa ([www.zopa.com](http://www.zopa.com)) provide this sort of facility to the right users for a £118.50 fee per year plus a 1 per cent cut from the lender (Freedland, 2009). Could a much cheaper version, underpinning all the services already listed, expand the annual £50m of loans already made among Internet users in Britain (Freedland, 2009)?

These small personal trades have always been demanding to arrange. That could now change. The key is looking at this part of the economy through the prism of recent developments in the evolution of marketplaces.

## Background: inequality in markets

Computerised marketplaces are a powerful tool that emerged in the last 15 years.<sup>3</sup> They can be extraordinarily transformative across entire sectors. However, there is a large disparity in the way they are used:

- A trader in a Canary Wharf financial institution can routinely sell her shares, bonds or more complex instruments if price movements as small as 0.01p in the pound are in the offing. The marketplace she uses will execute each trade for her in seconds with a couple of keystrokes, at negligible overhead. Underpinned by the authority of global banks, the marketplace will ensure that her counterparts – often dozens for each trade – are trustworthy. Data extracted from the markets, second by second, shows where there are opportunities and constantly attracts new resources into the market. This effortless trading has pushed the financial sector to exponentially increased turnover and profitability, now recovering after the financial crisis.<sup>4</sup>
- By contrast, an average family in, say, Grimsby might struggle to find a babysitter this evening. That is not because people in South Humberside do not need work at the moment, and nor is it due to a lack of ability to care for children in the area. The barrier is that there is no authoritative, convenient, stable, cheap marketplace available.

Grimsby, along with the rest of the UK, has hundreds of marketplaces for childcare (a Google search for +Grimsby +Babysitting produced 1,300 sites in the UK). Some are Internet based, others are driven by agency staff making telephone calls. This can be mistaken for usefulness, until you attempt to actually enter the market. In reality, the large number of marketplaces makes life very hard for aspiring sellers. I might be a diligent, experienced babysitter wanting to work tonight. My chances of finding the best intermediary for my needs are slim to non-existent. Even if I do find the forum which has access to the most potential buyers of my services in my area, I have to bear their overheads on my bookings, and gain little knowledge of the value of my services or patterns of demand across my local area.

Babysitting might be just one of my skills. Perhaps I can also drive a taxi, operate a switchboard and cook. I may own items that I only partially use and would like to rent out when not required. Similarly, I may be willing to let visitors to Grimsby sleep on my sofa for a few pounds a night if I know they are reliable, vouchsafed individuals. To enter all these markets, on my own terms, with a comprehensive overview of my optimum opportunities would take days of research, then quickly become outdated.

The trajectory of consumer Internet services like Gumtree ([www.gumtree.co.uk](http://www.gumtree.co.uk)), Craigslist ([www.craigslist.co.uk](http://www.craigslist.co.uk)), Alibaba ([www.alibaba.com](http://www.alibaba.com)) and eBay ([www.ebay.co.uk](http://www.ebay.co.uk)) has generated headlines. But these sites are little more than classified adverts transplanted from the newspaper or shop window to a computer screen. They lag far behind the usefulness the Canary Wharf bond trader takes for granted from her marketplace.

This *Viewpoint* focuses on addressing this disparity. As traditional jobs dry up, with questions hanging over whether they will return (*The Guardian*, 14 September 2009), perhaps more fluid models of economic activity need to be fostered. How can we enable anyone, however unskilled, poor or techno-illiterate, to put their currently hidden resources into the most useful marketplace imaginable?

### **Why is there this disparity?**

Why has the private sector not delivered marketplaces that mine the untraded assets held by those who are less well off? In some sectors it has: eBay, the dominant online auction site, has helped millions of people to sell collectibles and second-hand goods. But this is a tiny part of the resources waiting to be brought into play. The recurring assets of individuals are based on hours of hire, not one-off transfer of ownership. Give a man an auction site and you enable him to empty his attic for a one-off profit. But give him a deep marketplace where he can sell his spare hours, or the hours of anything he owns, and you create a daily pipeline of evolving opportunities.

Marketplaces based on hiring people or resources for short periods have to be more sophisticated than auction sites. The risks of such transactions are higher. Many companies have tackled this challenge, but few have lasted. None has come close to the dominance and usefulness eBay has achieved for sales of items. The classic case study of failure is Handshake.com, which set out to create a marketplace for house cleaners, decorators and handymen across the US.

Handshake burnt through millions of dollars of venture capital establishing a fundamental truth of services marketplaces: anyone can launch one, and will do so if there is the faintest chance of eBay-style returns. The key challenge for any new marketplace in any medium is building liquidity – an initial density of buyers and sellers that attracts further users until snowballing momentum is established. This costs money. Wall-to-wall advertising with free trial usage was the preferred option during the dot.com boom. But, having funded the critical mass, investors want their return: hefty charges for using the marketplace have to be imposed.

At this point, other start-ups or big firms – capitalising on the awareness-raising of the pioneer – can launch their own marketplaces more cheaply and chip away some of the business. The handful of forums that develop a pool of users will then be undercut in the same way. This cycle of dissipation in marketplaces makes any attempt to sell a matter of luck. As sites come and go they offer different business models, liquidity that varies by geography and sector, regulatory models requiring constant scrutiny by users, and lifespans that can be brutally curtailed by disenchanted investors.

It is an uncomfortable paradox that marketplaces allow the most diversity of opportunity once competing marketplaces have narrowed to one unmistakable winner. Stripped of geographic constraints, modern marketplaces are a natural monopoly. In the early days of the Internet, a fledgling eBay caught established online operators unawares and was able to build the dominance that makes it so useful to anyone with a shed full of junk. Having seen eBay's stratospheric returns (early backers made a return of 160,000 per cent, at contemporary stock values, in two years; see Wilmsen, 1999), the online world is now much more vigilant about launching 'me-too' versions if a marketplace looks like succeeding. The result is paralysis. It is pointless funding a marketplace launch outside of a tight niche because the service will never be allowed to establish itself before a flood of competitors undercut profitability. That is why the private sector alone cannot unleash the value trapped at the lowest levels of the economy.

Even if a dominant marketplace covering the thousands of sectors in which individuals could most usefully sell were to emerge from the private sector, its usefulness would probably be curtailed by commercial imperatives. A powerful marketplace can pick from a menu of ways to make money from its position. Percentages deducted from each transaction can be ramped up. Sellers may be charged for enhanced listings. The market can be skewed to favour big, more profitable, sellers. EBay has yielded to all of these temptations (see, for example, *Sunday Times*, 22 June 2008).

Waiting for a truly state-of-the-art, consistently low-cost marketplace for the bottom of the economy to spontaneously emerge is probably going to be fruitless. Those assets will remain untraded even as growing numbers of 'socially useless' financial instruments zip around the world's money markets with increasing sophistication and profitability.<sup>5</sup>

## Whose problem?

The public purse picks up the tab when individuals cannot engage in economic activity. So it is probably reasonable to see deficiencies in the opportunities available to ordinary people as a government problem. What could government do about it in terms of policy? The first step is to understand what functions online markets would need to perform to unleash new resources from the lowest levels of the economy – see Box 1.

Government should not build the marketplaces required, this will always be a costly and risky venture. But government has formidable regulatory powers. It alone controls the mechanisms that check for criminal convictions, verify a person's right to drive a car, permits them to practice as a dental hygienist, or to proffer other valuable services. Government's promotional channels are wide-ranging and pervasive. Above all, the public sector is the biggest single buyer of individuals' time in the economy. These facilities might be the bedrock of a very useful marketplace. Could they be used to quickly induce companies with the expertise and deep pockets needed to create the marketplaces required?

## Box 1: Five aims of a ‘modern markets for all’ policy

1. Create a website, underpinned by public bodies, where any person or legal entity can sell:
  - their time;
  - specific timeslots (for their possessions or money).
2. The website is to operate in a framework that ensures:
  - lowest possible fixed-rate transaction costs;
  - highest feasible levels of user protection, system transparency and market neutrality. A buyer’s requirements are matched with every applicable seller, ranked either neutrally or according to the buyer’s instructions;
  - as much control for the seller as possible. This should include the ability to:
    - specify the parameters of acceptable buyers;
    - set their own prices or formula for calculating prices;
3. Full information about aggregated market activity is to be made freely available to users and potential users.
4. The eventual marketplaces may cover many hundreds of services and objects for hire. Each of these sectors should be compatible with the others, so that a single purchase can draw on a combination of sectors to meet the buyer’s need.
5. The markets described must be universally available. The following should be regarded as integral to the project:
  - comprehensive accessibility technology for those with impairments;
  - interfaces in multiple languages;
  - a national network of kiosks giving public access to the markets.

## A new policy: modern markets for all

This *Viewpoint* urges policy-makers to adopt ‘modern markets for all’ as a policy priority. Politicians should aggressively ask: “are people at the bottom of the economy able to sell whatever resources they may have as efficiently as possible?” If the answer is ‘no’, policy-makers should keep an open mind about how that situation might be reversed. They need to thoroughly understand the capabilities of modern marketplaces, and what they require to get going, before assuming that the issue is peripheral to policy-making.

Complex marketplaces need an underlying authority to deliver full usefulness. That does not always have to be government. The bond trader’s computer is probably accessing a network of marketplaces, each linked to the others. Those markets collectively achieved their prominence because a substantial financial institution underpinned fledgling services with facilities such as mechanisms for settlement of trades, their solidity as established trading partners and their daily flow of buy/sell requirements. When it comes to all the sectors that need to be unlocked at the lowest levels of the economy, government bodies are the only comparable authority.

That role could be subtly leveraged. An enlightened government might be able to nudge key players into shaping a new generation of marketplaces. It could be that a little judicious rechanneling of research and development (R&D) grants or innovation pilots would motivate technology suppliers to shape the systems required. Public exhortation aimed at the high-tech sector might produce progress. But getting corporates to build marketplaces capable of delivering everything in Box 1 is only part of the task. Policy-makers must understand that if they are to use their authority and facilities to underpin a marketplace, they are offering something of enormous value to a commercial operator. They must get the best possible deal for the British

## Box 2: Five core principles of a 'modern markets for all' policy

1. Government should not fund, design, build or operate the intended marketplaces. Government may make its existing spending, authority, promotional capability, verification procedures and other facilities available to the new service, but must do so in a way that clearly extracts maximum benefit for the taxpayer and market users.
2. The companies that benefit from the government facilities described above must be decided in a clear, accountable way. Government must ensure that the marketplace operators have legitimacy, for example through established procurement or tendering processes.
3. The marketplaces must be structured specifically around small transactions. Operators must not take government facilities and apply them to predominantly high value trades. This could be achieved with a target for the average value of a purchase in the markets.
4. Government may not interfere in the markets once launched. Operators will have a framework of public service obligations and can only increase their returns by driving up transaction volume. Within these boundaries they must be free to make commercial judgements.
5. There is to be no unified powerbase running the markets. For example, control could be split between companies running the core service and franchisees developing individual sectors. Anyone must be free to build applications that sit between the markets and their users.

people in return. That requires some core principles for the new policy, suggested in Box 2.

The rest of this *Viewpoint* assumes a pessimistic scenario: companies cannot be informally persuaded to fund the demands of Box 1 while committing to the requirements of Box 2. If Parliament is serious about 'modern markets for all', it will have to formally initiate a new system of marketplaces: National E-Markets (NEMs).

### Another government IT project?

Those who believe that the state cannot handle large-scale technology implementations do not have to work hard to make their point: £12.7bn overspent on the NHS 'Spine' system (Beckett, 2009); £690m lost on C-Nomis, software supposed to link records of offenders (*Private Eye*, 2009); £140m wasted on a failed attempt to overhaul Department for Work and Pensions (DWP) information technology (Wilson, 2006); and £486m lost trying to upgrade the Child Support Agency's infrastructure (Johnson and Hencke, 2008). But there is another model. It shows how easily politicians can bring a complex technology network, targeting those who are less well-off, quickly into being: the National Lottery.

John Major's Government did not fund the lottery. Nor was it involved in implementation. It simply passed the 1993 National Lottery Act. This defined:

- the parameters of the intended service;
- the benefits and protections government would bestow on the successful operators of that service;
- corresponding obligations to be placed on those operators;
- duration of the concession – for how long would the chosen operators have unique access to the benefits and protections?;
- the process by which a winning consortium of operators would be decided.

State-sponsored gambling may or may not be a good idea. But the lottery undoubtedly demonstrates how quickly complex new technologies can have an impact at lower levels of the economy. The Camelot consortium won the concession to operate the National Lottery in May 1994. By November that year they had installed 10,000 dedicated terminals in local shops across the UK (Superbrands Ltd, 2002). They had to be on schedule, as every day they were late would have cost them a £1m fine. Between September and October 1994, Camelot's ten regional training centres taught 80,000 individuals how to interface with the then unknown system (Superbrands Ltd, 2002). A year later,

4.5 billion £1 tickets had been sold and the scheme's social profile established (Fowler, 1995). Some 70 per cent of the population play the lottery regularly, with usage heavily skewed towards unemployed and unskilled people (*Daily Telegraph*, 2009).

NEMs would, of course, be a more complex undertaking. There is no NEMs system elsewhere in the world on which expectations can be modelled. The proposed system would need a relationship with existing databases in a way the lottery does not. Access is through the web, not dedicated terminals, so security is more of a headache. But the core principles could be the same: government defines a vision for the technology, leaves companies to try to fulfil it at their own risk, and lets the British people decide whether they want to make use of the result.

### What could government do?

Suppose government were to seek to repeat the principles of the National Lottery to create a system of NEMs. It might define the service using concepts like those given in Box 1 and Box 2. Following on from this, the legislation for NEMs might look like that shown in Table 1.

### How NEMs might work

Imagine that government has enacted the legislation just described, and a consortium of multi-national technology companies and financiers has launched 'www.nems.gov.uk'. The Act which has given them this opportunity has forbidden the creation of one monolithic marketplace. Operators' power is balanced by the individual, British, franchisees who develop and own each market sector within the system. One person drives the NEMs marketplace for clothing alteration services, another sets the rules for the plumbing market, and so on. The mark-up of perhaps 2.5 per cent placed on each transaction to fund the system is split by the system between franchisee and core operators.

NEMs could be launched on a small scale, perhaps focusing initially on a market for tourism services. This marketplace would allow anyone to sell accommodation, guiding, rental of items, meals-in-the-home or other facilities to tourists. As part of government's package for NEMs, the system's tourism services sector might be promoted by the government-funded VisitBritain body as a 'buy from the locals' proposition for domestic and international travellers.

**Table 1: How legislation could initiate NEMs**

Benefits government offers to operators	Obligations placed on operators
<p>All relevant public sector spending to be progressively channelled through NEMs.</p> <p>NEMs permitted to interface with licensing authorities and courts.</p> <p>Promotion of NEMs across all relevant government communications channels.</p> <p>Benefits/tax rules made NEMs-friendly.</p>	<p>Flat-rate percentage mark-up on all transactions is only return for operators.</p> <p>System is mandated to focus on small (e.g. average £50) transactions.<sup>6</sup></p> <p>All costs, including public sector integration and universal access kiosks, paid by operators.</p> <p>Transparency, neutrality, privacy of data mandated and must be proved.</p>
<p>The benefits offered by government might be uniquely available to the operators of NEMs for a fixed-term concession of, perhaps, 15 years.</p> <p>How would the winner of the concession be selected? Consortia of companies with the technology expertise and finance might be invited to stipulate the flat-rate percentage mark-up they would put on each transaction to fund their return. The lowest credible bidder would then win the concession.</p>	

**Example: booking a babysitter**

Imagine that the tourism sector has progressively been supplemented by other markets launched by other franchisees, including – eventually – a national market for babysitters. Government’s total purchasing of out-of-school childcare now goes through the marketplace, ensuring constant underlying activity from which anyone can benefit as a buyer or seller.

Assume that it is now 5.30pm on a weekday. You are a parent in Grimsby who wants to go out this evening. Weeks ago you went to the town hall or post office with your proof of identity and were set up with a verifiable account on NEMs from which you can buy or sell. This proof of identity check is part of government facilities made available to operators. So now you go to the NEMs website, enter your password and navigate to the childcare market. The system asks if you want to sell or buy. It then offers the buyer’s requirements page. You tell it you want someone at your home tonight between 7pm and 10pm. Immediately it offers the ‘Childcare: select your seller(s)’ screen (Screen A).

It goes without saying that everyone offered to you has all the legal accreditation they need to work in home-based childcare. Government has given NEMs the means to constantly re-check this. For example, NEMs has (at operators’ expense) interfaced into the Criminal Records Bureau (CRB) database. Anyone wanting to sell babysitting must give NEMs permission to check the status of their CRB record whenever it needs to do so.<sup>7</sup>

Each sitter on your screen is running a diary of availability which shows that they want to work for the hours you have specified this evening. They may be inputting the hours they want to work using public Internet access at the library, at home, at a friend’s house or through a mobile phone. Likewise, their diary of contactability shows that each can be contacted by NEMs in the next 15–20 minutes. The system has worked out what each sitter wants to charge for this specific requirement based on their personal base rate, how far that person would have to travel, and their personal parameters such as the length of booking or period of notice. Those on the left of the screen are the cheapest – probably because they live most locally and particularly enjoy bookings like this one.

**Screen A**

national e-markets

HOME ▶ MARKET DATA ▶ MY SALES ▶ MY PURCHASES ▶ MY BALANCE

## Childcare: select your seller(s)

Providers of home childcare available to travel to DN31 1HX today between 19.00 –22.00. [Change .](#)

▶ Available: 23 ▶ Selected: 1 ▶ Total cost: £20.91

Available	Market level	Seller(s)				Selected	
2	<b>6</b>	June James £12.20	Sid Gayle £15.79			0	
2	<b>5</b>	Wai Yin Yee £9.65	Mart Tomms £12.56			0	
3	<b>4</b>	May Smith £6.97	Jane Day £7.09	Penny LeRoy £7.23		1	
3	<b>3</b>	Grace Hung £6.56	Julie Ray £6.98	Nancy Marsh £7.85		0	
4	<b>2</b>	Jane Harris £6.81	Roy Baker £7.29	Greta Kidd £7.84	Nancy Read £8.30	0	
4	<b>1</b>	Dora Hollis £6.60	Tammy Lee £6.89	Karen Ems £6.95	Bob Manty £9.35	0	
5	Entry level	Mart Finch £6.30	Rob Flak £6.80	Tony Arkle £7.80	Terry Lotts £7.80	Sam Parz £7.80	0

Display by:  Market levels  My ratings      Show:  Rate per hour  Assignment cost

OK

The available workers are also graded by track record of reliability. Those at the top have a consistent record of doing what they say they will do, but are likely to be more expensive. This view of the market assumes you are a new buyer. There is no list of babysitters you have personally approved. Even without this, it is worth pointing out how safe NEMs can make the market for childcare:

- NEMs operators may have mandated a ‘feeder market’ for such a sensitive sector. They may have decided, for instance, that a seller can only enter the childcare market once they have completed 50 complaint-free bookings for at least 20 households in a NEMs ‘parent’s help’ market. This is for transactions where a responsible adult remains in the home, but pays for some assistance with children.
- NEMs could be told to display only babysitters who are able to prove that they are also qualified, practising teachers or nurses – people who take daily responsibility for children with whom they have no prior relationship.
- A cautious buyer might ask NEMs to display their most local babysitters and then book a selection of them for an hour-long interview, for which they would have to pay. This then gives the parent an initial list of sellers they have interviewed and approved. NEMs can show them when people on this personal list are available.

Clicking on the ⓘ symbol next to any seller’s name brings up further details of the resource on offer, in this case the particular babysitter. Details of their experience and willingness to perform additional tasks, such as cooking for clients’ children, become part of any NEMs contract between the two parties.

### **How safe is this market?**

As a means of booking childcare, NEMs will never be completely devoid of risk. Nor will any other means of booking someone for such a sensitive task. But NEMs is the safest way conceivable of engaging someone you do not know for the role. A high-level babysitter in NEMs would have a verifiable track record of sitting for dozens of households, any of which could have frozen their payment and instigated a complaint through NEMs’ relationship with the courts, with a few clicks.

The worker’s track record of reliability and probity on NEMs is vital. It carries the kind of economic value a driving instructor attaches to a valid driving licence. If a sitter sullies her track record, her ability to command a premium price will go. If she were to commit any criminal act, the courts could demand access to her NEMs records to investigate every family for which she had worked. They could suspend her from selling as a childcarer in NEMs, and the system would instantly remove her from the market until told otherwise.

Despite all this, many people would balk at booking a babysitter online. The mechanisms and protections described above could, of course, apply across multiple sectors. Cautious users may choose to use NEMs only for less sensitive requirements: home decorating, taking a cat to the vet or valeting a car. There should be no expectation that NEMs users will assign their life’s requirements to the system. It is a tool that any citizen can use, for buying or selling, to the extent they wish.

### **Making a booking**

Assume you decide to book May Smith from Screen A. You click on her name and proceed to the standard NEMs contract for childcare at home. It is a commonsense document, drawn up by operators to maximise market growth with no incentive to advantage either party. It will be used for thousands of comparable transactions, ensuring that the courts, concerned buyers and sellers are all aware of its provisions. Unless you wish to check details, it can be accepted very quickly by rekeying your NEMs password.

Once you have accepted, the system will deduct the sum shown from whatever online account you have chosen to allow NEMs to access or create for you. It will hold the money until 48 hours after the end of the booking. If neither you nor the babysitter has attempted to freeze the money because of a disagreement over the transaction, NEMs will then transfer the funds across to her account, minus perhaps 2.5 per cent which it retains as the transaction charge. This charge is fully inclusive: operators are not allowed to deduct any extra for cash transfer, holding funds in escrow or other administration. To keep charging transparent, the legislation could mandate that there are no costs to users beyond the system-wide percentage mark-up deducted from each booking.

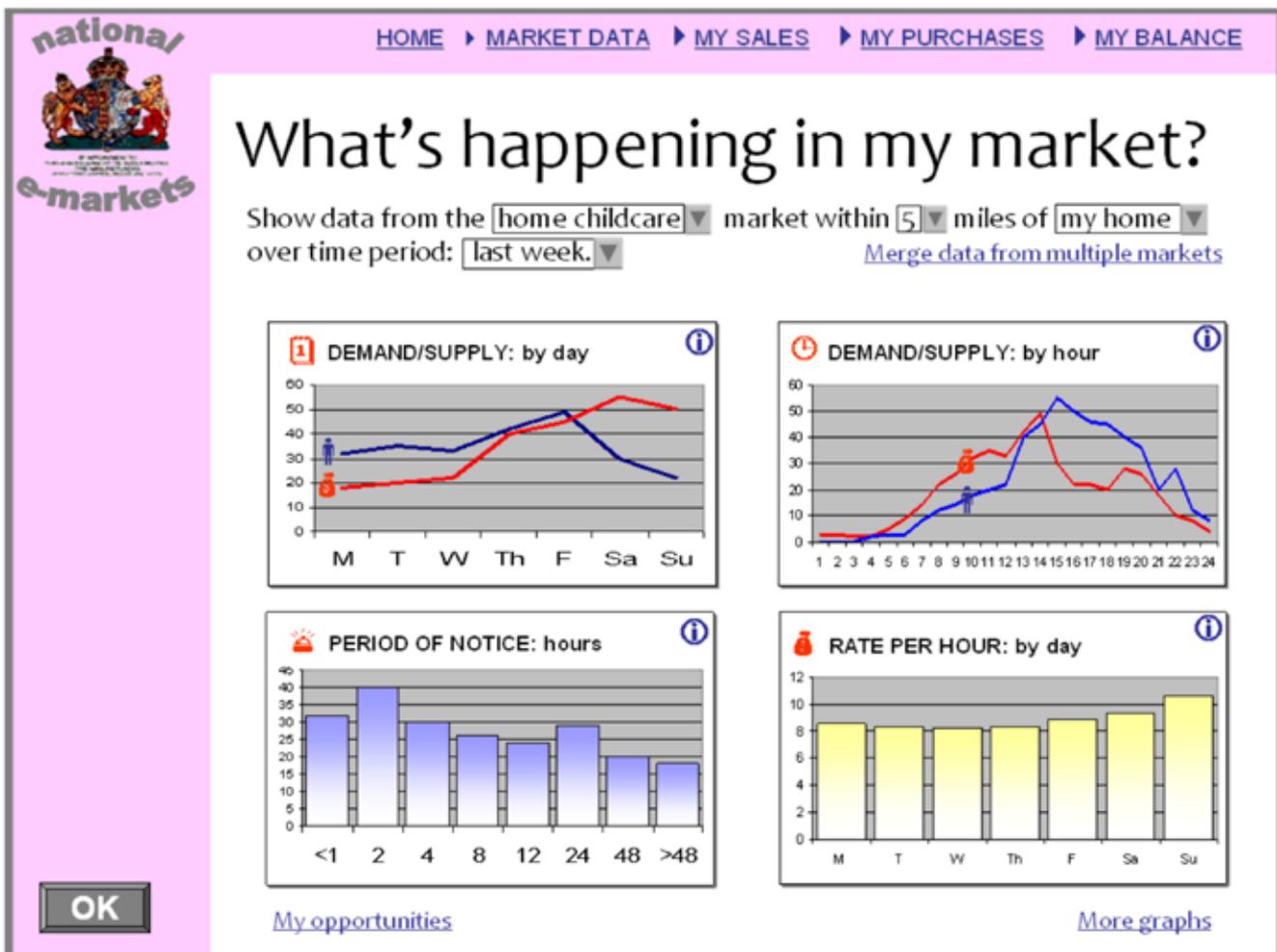
Across town, your chosen childcare provider receives a text message or other alert. NEMs knows that she wants to work this evening, your booking is within all her parameters, and you have allowed the system to hold the funds to pay her personal rate. She has undertaken to respond within the period allocated by the website. If she does not, NEMs has left itself enough time to sort out a replacement according to your instructions.

Crucially, May Smith has now gained a few hours of quality work, on her own terms, at a time she has chosen to be available. She has every incentive to do a good job this evening, but equally she can bar you from booking her again if she does not like you or your offspring. Her costs of market entry, after vetting, were nil. Overheads on each transaction are negligible and all the administration is done by NEMs, even down to tax calculation and payment if she wishes. Babysitting may be just one of dozens of markets in which she is reaping these benefits.

## Democratised markets

It may seem totally improbable to us now, but you could have made this booking, with peace of mind, in around 30 seconds. Thanks to NEMs, booking someone to look after your children is no longer a process requiring planning, phoning around, negotiations on price, attempts at vetting or worries about value for money. Parents may book someone from their approved list for an hour so that they can do the shopping. This ease and safety of booking is likely to drive expanded opportunity. To make sure the supply side of the market matches the demand, NEMs could output data from all its markets in a way that allows any user, or potential user, to see their options in the local markets – see Screen B.

## Screen B



## Advanced NEMs functions

The usefulness of NEMs could go beyond simple purchases and regulated loans between users. If it started to create a significant additional percentage of economic activity, the system could introduce further functions such as the following:

- **Complementary economy** – if there were a significant shortage of cash at the bottom levels of the economy, policy-makers might authorise a restricted-use virtual currency for local trades, which NEMs would trickle into users' accounts. This ultra-convenient, safe, more widespread version of parallel economies such as local exchange trading schemes (LETS) could allow local trading to continue even in the direst financial circumstances.<sup>8</sup> The legislation which enabled NEMs may insist that any parallel currency be taxed through the system, but could also allow it to be made exchangeable for sterling, under controls to protect the main currency, within NEMs.
- **Resource gaps analysis** – is there a shortage of electricians in Perth? Are van drivers oversupplied in east Cardiff? Do times of demand and times of supply for motorbike hire in Belfast mismatch at the moment? Is housecleaning more expensive in Plymouth than anywhere else in the UK? NEMs can extract this data and highlight it as a matter of public interest. It can inform government planning, commercial opportunities and countless individual options.
- **Investment in sellers** – having identified such market inefficiencies, NEMs can turn them into opportunities for investors. If, for example, there is a shortage of homecare workers in Great Yarmouth but a surfeit of catering staff, NEMs might automatically set up a fund that offers catering workers with a track record of reliability, but few current bookings, the chance to train in homecare (NEMs would have a market for qualified homecare instructors and could instantly arrange all the details for each beneficiary). Anyone can put cash into the fund. Their return comes from a requirement on recipients that NEMs be allowed to extract, say, 10 per cent of their heightened earnings for six months as payback. People who have built up a track record of reliability in even the most unskilled sector could find that their record attracts the finance, and one-click ease of entry, that quickly takes them into new opportunities. For investors this addresses the problem that it is so easy to channel funds into international money markets at present, but so difficult and uncertain to invest directly in up-skilling the British workforce. As further enticement, NEMs could package, index and create secondary markets for these investments in ordinary people.
- **Interlocking markets** – many purchasers will want to book a package of resources from multiple sectors. NEMs can do this instantly. For example, a team of managers from a small business might want to travel to Birmingham to make half a day's worth of presentations to potential clients. They need to do this sometime in the next fortnight, and know it will involve hiring a suitable room, minibus travel from their base to that location, hiring a projector which must be delivered to the room they hire, and some catering. They could input these multiple resource requirements on one screen – see Screen C.

Screen C

**national e-markets** HOME ▶ MARKET DATA ▶ MY SALES ▶ MY PURCHASES ▶ MY BALANCE

# My requirements

**1 Room: meeting room** Refine

Location: within 2 miles of Central Birmingham

Capacity: 30 people

Date: between 02 May and 21 May

Time: start between 9.00 and 14.00

Duration: 4 hours

**2 Staff: receptionist** Refine

Location: Aligned with requirement

Date: Aligned with requirement

Time: Aligned with requirement

Duration: Aligned with requirement

**3 Display: projector** Refine

Location: Aligned with requirement

Date: Aligned with requirement

Time: Aligned with requirement

Duration: Aligned with requirement

**4 Travel: 6 people** Refine

From: Our office

To: Aligned with requirement

Date: Aligned with requirement

Time: arrive 2 hrs before start

**5 Catering: buffet** Refine

Location: Aligned with requirement

Date: Aligned with requirement

Time: Aligned with requirement

Duration: Aligned with requirement

Capacity: Aligned with requirement

**6 Travel: 6 people** Refine

From: Aligned with requirement

To: Our office

Date: Aligned with requirement

Time: depart 1 hour after end

**OK** Add another requirement

Screen D

**national e-markets** HOME ▶ MARKET DATA ▶ MY SALES ▶ MY PURCHASES ▶ MY BALANCE

# Select a package

Order by lowest cost [refine requirements](#)



	Travel	Room	courier	Display	courier	Catering	Staff	Travel
<b>9th May</b> £259.22 <b>BUY</b>	edit £23.90	edit £96.32	edit £8.90	edit £13.90	edit £9.20	edit £32.90	edit £38.90	edit £35.20
<b>5th May</b> £263.22 <b>BUY</b>	edit £35.83	edit £93.27	edit £7.20	edit £23.10	edit £9.40	edit £41.02	edit £32.40	edit £21.00
<b>7th May</b> £264.27 <b>BUY</b>	edit £17.65	edit £90.14	edit £7.36	edit £16.96	edit £9.00	edit £64.90	edit £36.90	edit £21.36
<b>3rd May</b> £265.93 <b>BUY</b>	edit £36.25	edit £88.47	edit £9.47	edit £21.36	edit £8.80	edit £22.65	edit £47.90	edit £31.03
<b>Incomplete packages</b>								
<b>15th May</b> £253.62 <b>BUY</b>	edit £28.49	edit £98.27	edit £9.90	edit £31.60	edit £9.90	edit £53.90	edit £21.56	

**OK** Click on any square for details of that offering.

These chains of transactions depend on NEMs reaching a point where it has hundreds of sectors. In this example, it would need markets for meeting room hire, office equipment rental, travel, local deliveries and catering services. Of course, any legal seller can put resources into any of these sectors. The market for meeting room hire, for example, could be accessed by any organisation with a room they did not require for a few hours at any time, and they could specify the track record required for acceptable hirers.

NEMs can search all these markets and instantly assemble co-ordinated packages of services for a buyer's specific needs. The Birmingham-bound managers, for example, might see the packages on Screen D.

### *Is this sort of marketplace realistic?*

This model of very fluid, participatory, informed capitalism may seem implausible. But a 1990s bond trader might have been equally sceptical if asked to consider the possibility of today's daily turbo-trading of billions of pounds' worth of complex financial instruments. Similarly, NEMs-style trading is sometimes dismissed as unnecessary – people will turn to a neighbour's teenage daughter when they want a babysitter, not the computer; they will rely on word of mouth to find a housecleaner, and so on. Again, our trader of 20 years ago might have felt that there was no need for futuristic technology, because by the standards of the time everything was working fine: "When I want to sell, I just call Bob at Goldman Sachs and he fixes everything".

The point is that computerised marketplaces can be so useful that their possible impact may be hard to comprehend from a starting point on the journey. One aspect of that potency is the potential returns for operators. This is why it is reasonable to suggest that the private sector would fund such sophisticated systems if government created the right environment. It is, of course, crucial that politicians drive a correspondingly hard bargain on behalf of the British people.

Hyperbolic coverage of the Internet currently focuses on how it enables changes in the way we make friends, keep our acquaintances updated on our daily activities, or access entertainment. But e-marketplaces are where the real potential for structural shifts in our standard of living is to be found. NEMs could be very much realistic if government starts to grasp its role as catalyst.

## Impact of NEMs

If NEMs were to succeed on the scale of the National Lottery, it should allow people to sell their time or their belongings that currently have no value. It could create environmentally friendly economic activity based on localised trading and maximised use of existing goods.

The diversity of market sectors within NEMs would be likely to grow as the system expanded organically. Table 2 gives some examples of the kinds of facilities people on lower incomes, or the small companies that tend to generate most jobs, might be able to sell as the network of NEMs marketplaces developed.

**Table 2: Examples of marketplaces within NEMs**

Individuals as main buyers	Businesses as main buyers	Government as main buyer
Home laundry	Rental of meeting rooms	Literacy tutoring
Pet care	Office equipment hire	Physiotherapy
Home hairdressing	Industrial storage	Social care visits
Large toy hire	Commercial vehicle hire	Street cleaning
Cook-in-your-home services	Agricultural machinery hire	Computer training
Car parking spaces	Security guarding	Services for stopping smoking
Computer/Internet time	Stud animal hire	Leaflet distribution
Lawnmower hire	Roadside vehicle repairs	Slots in swimming pools
Clothing hire	Manufacturing capacity hire	Street wardens
Personal translation services	Office cleaning	Youth workers
Flat-pack furniture erecting	Load space in vans	Road crossing patrols
Shopping services	Container hire	Call-centre shifts

### Where would the demand come from?

Assuming no shortage of individuals needing economic activity, the extent of demand would determine the eventual impact of NEMs. Would that be new demand, or will the system only shift buying from elsewhere in the economy? Likely demand in the system fits into four categories, each a mix of the new and supplanted:

- **Currently non-existent markets** – at present, it is almost impossible for individuals to rent out their car at times when they do not need it. The demands of insurance, location and checking a hirer’s credentials make it prohibitive. Assume that NEMs could resolve those issues behind the scenes. NEMs could demonstrate times when there was particular demand for car hire in any given area, and show the kind of rates being paid. Any motorist could put their vehicle into the market for a few hours at any time, specifying perhaps that it was only to be displayed to buyers with at least 100 complaint-free car hires behind them. The car would not need to be pristine, just honestly described. This would create a market for effortless hire of older, localised vehicles. They may only command £3–£4 for a few hours, but this is new demand. Outside of a car club, it is currently hard to hire a car short term for under £20 a day.
- **Markets made more convenient** – there are, predictably, a great many Internet forums in which anyone can rent their sofa overnight to a stranger.

NEMs could create a regulated, stable, low-cost version. That would be likely to increase the temptation to sell, particularly as NEMs can show patterns of demand and pricing locally.

- **Supporting markets** – activity in one NEMs market can create opportunities in adjoining sectors. For instance, NEMs could initiate a market for ‘holders’ – people who hold neighbours’ assets and check them in and out to hirers in return for a cut of the transaction value. For instance, I have a vacuum cleaner I only use once a week; I want to realise its value, but I do not want to answer the door to a succession of hirers. NEMs could match me with a local person who will keep it in their hall cupboard, along with other people’s possessions, and undertake to be at home to check it out and back in. Similarly, there could be a sector for intermediaries: people with a laptop who frequent public spaces such as libraries, offering to transact on behalf of those who are computer-phobic in return for a mark-up on each transaction, which NEMs diverts to their account.
- **Corporates displaced** – in some instances NEMs could make local trades cheaper and more convenient than large organisations providing those services. In the 1930s, delivery boys on bikes commonly delivered people’s shopping. That model cannot now compete with the ease with

**Table 3: Potential impact of NEMs on government priorities**

Priority	NEMs contribution
<b>Reducing emissions</b>	NEMs can make local providers cheaper and more immediate. Cheapness would be heightened by any increase in fuel tax.
<b>Social cohesion</b>	NEMs should make local traders potentially cheaper than remote corporate suppliers. It fosters trading in which local people criss-cross their area on bookings, making community connections all the time.
<b>Internet take-up</b>	NEMs should turn currently wasted hours into an economic resource from which operators will get a percentage. Operators can be expected to fund increased Internet access that will expand their eventual markets.
<b>Responsive public services</b>	NEMs instantly allows for control of services to be devolved to the lowest levels. A parish council could be given a budget of, say, £4,000 a year to buy approved street cleaners, youth workers or street wardens through NEMs. Purchases can be scrutinised by local people in NEMs.
<b>Welfare to Work</b>	The current polarisation between being economically inactive or in work could be mitigated through NEMs supplementing jobseekers’ efforts with an online diary allowing users to build a track record of ‘bits of work’, course attendance, individual mentoring or volunteering around their job hunting.
<b>National competitiveness</b>	Any foreign holidaymaker or business buyer coming to the UK would be able to instantly and safely purchase from a responsive array of sellers. It is likely that the workforce would be more enterprising, skilled and resourceful as a result of NEMs.

which supermarket vans can be booked for home deliveries. NEMs might be able to make it just as convenient, but quicker and cheaper, to get a verified local teenager to cycle to the shops and bring back a small selection of groceries.

### **Government priorities**

NEMs could turn big requirements into multiple small local transactions. It could also be a conduit through which government funds are transferred to individuals. This usefulness could underpin all sorts of official priorities, as shown in Table 3.

If NEMs were to achieve its full potential, it could throw up some uncomfortable issues for any government unwilling to adapt. Take the benefits system, which is currently binary: individuals are either in work or out of work. The transition between the two is bureaucratic and too often daunting for people in need. This creates incentives to stay in the benefits system. There are campaigns against this artificial barrier, notably the Community Allowance proposal (see [www.communityallowance.org](http://www.communityallowance.org)). But the DWP remains predominantly telephone and form-based in its dealings with customers (see [www.governmentontheweb.org/access\\_DWP\\_information\\_exchange.asp](http://www.governmentontheweb.org/access_DWP_information_exchange.asp)). It is not set up to handle the kind of dynamic information that more fluidity generates.

An established NEMs system could create a grey area of partial economic activity in which some people do need additional support from time to time. An administrative nightmare in the current regime, this could be addressed within the system. Claimants might be encouraged to engage in piecemeal economic activity while job searching. Tapers in their payments might reward activity while cutting costs for the taxpayer.

A claimant running an online diary on NEMs might find induction sessions, volunteering or interviews automatically slotted into their times of availability. They could find benefits topping up their earnings in return for a clear trajectory towards independence. A Friday evening message from NEMs might say, for instance: "You have earned £46 this week; your account has been credited with a further £65 in benefits. This requires your confirmation that no income has been earned outside this system. If you have not reached £80 in averaged weekly earnings within four weeks you will be invited for a further assessment interview and may be directed towards opportunities by us". NEMs could take its flat rate percentage from each successful government-to-citizen transaction such as this. It should be cheaper than current administration overheads.

Technologically the above is possible, although not within DWP's current software. If the concession for NEMs demanded infrastructure for payment and monitoring of benefits as part of the operators' obligations, a much more flexible approach to welfare could be offered to claimants with minimal cost. That would, however, require reappraisal of fundamental rules.

### **Cultural impact**

If successful, NEMs would address what is often termed 'poverty of aspiration' (Creegan, 2008). It would allow anyone to see graphic representation of the economic activity surrounding them and look for their niche within it. Of course, they might need help in order to sell. If they are far removed from taking part in legitimate economic activity, a government fund is likely to be the initial purchaser of their time – as is the case now. But the binary contrast between being either in a job or deemed economically inactive should blur.

NEMs would create opportunities that may only last an hour or so every day. But for someone who has not worked for years, an hour's work this week, with the possibility of maybe two hours next week, could be life changing. If NEMs took off like the National Lottery, and if government allowed its support for those who are most needy to incorporate NEMs usage, no one should feel excluded from legitimate economic activity.

### **Downsides**

NEMs would not be a panacea, and any change on this scale would have a negative side. The most often voiced concern about NEMs is that it would further erode jobs. Certainly, the new markets would pose a threat to established organisations in relevant sectors that did not respond to new competition from local communities. But ambitious companies could still provide distinctive, higher value services in a world with NEMs.

Companies which did not react to NEMs-enabled competition would probably have to contract. So the system could possibly shrink traditional jobs over the years. However, there are two counterweights to this concern:

- Most organisations need a core of staff with knowledge, corporate relationships and some longevity. NEMs would not change this. It is peripheral staff, often temps, who would be vulnerable, but these are rarely secure positions even without NEMs.

- If NEMs has an impact on traditional jobs it would be because it is expanding work opportunities for local people who are then competing with firms. Many workers would like job security based on allegiance to a career structure within one organisation. Few have that option any more. NEMs instead offers ‘flexi-curity’ – the employability that comes from having traded reliably in multiple sectors, building transferable skills, confidence and networks while doing so.

Would lack of familiarity with computers keep people from the benefits of NEMs? As part of the obligations placed on the system’s operators, the legislation might mandate a fund of, say, £50m to be added into a market for local ‘NEMs trainers’. This would mean that the first million non-computer users to sign up for NEMs could be given five one-hour sessions, at a time and place of their choosing, with a local person who would bring them up to speed on the new marketplace and ensure that they completed their first three sales. The rules of this scheme would need to be complex. But NEMs could make it very simple for aspiring users.

NEMs would, of course, penalise those who were unable or unwilling to ever use a computer. This could only be partially solved by ensuring accessibility interfaces and networks of advocates to act on behalf of others. But much of modern life is unforgiving to anyone resistant to using the telephone, and that has not stopped successive governments using policy levers to drive the technology to ubiquity in order to maximise national competitiveness.

What about the worst case scenario: NEMs does not work or leaves the British people cold? The legislation must ensure that if this were to happen, the operating consortium might lose its money but the UK taxpayer would be no worse off.

## Wider capitalism as a cure for poverty?

‘Markets’ are often viewed with hostility. That is unjustified: a market is simply the mechanism by which resources enter the economy. Current distaste probably stems from the way in which large corporations have used their authority, processes and economic clout to create new forms of marketplace to benefit themselves. Meanwhile, government – which has all the facilities to do the same for the rest of us – has not responded to

### Box 3: Lessons in government-sponsored marketplaces – ‘Slivers-of-Time Working’

#### Background

- In 2005, the then Office of the Deputy Prime Minister allocated £500,000 from its e-innovations fund to launch a marketplace based on a small part of the NEMs vision. The market would allow anyone to “sell today’s spare hours to local employers”. The Government’s money was subsequently more than matched by the charity Frederick’s Foundation.
- A need for such markets was clear. Government-commissioned research showed 13.7m people in the UK needing odd hours of work, and 68 per cent of them wanting to try Slivers-of-Time Working when it was explained to them ([www.sliversoftime.info/our\\_markets/whats\\_the\\_need.html](http://www.sliversoftime.info/our_markets/whats_the_need.html)). Employers also needed ultra-flexible local labour markets to top up headcount during peaks in demand.

**Table 4: Participants in Slivers-of-Time markets**

Sellers of Slivers -of-Time	Buyers of Slivers -of-Time
Parents	Local authorities
Students	Caterers
Newly retired people	Retailers
Carers	Manufacturers
Partially employed people	Leisure industry
Medically restricted people	Hospitality providers
Business starters	Promotions companies
Jobseekers	Logistics providers
Experience seekers	Service companies
Work returners	Care providers

the opportunity. A well-executed NEMs launch could redress this balance and restore the reputation of markets as bringers of opportunity.

Government already creates markets. But the thinking lacks ambition and is outcome orientated rather than seeking to unleash markets that can then develop organically wherever they might expand the economy. Policy-makers in one Whitehall department will nurture a hermetically sealed market to solve a particular

problem, often with substantial investment. Barriers to the new market's usefulness may not be addressed (see Box 3 for examples of this). A wider, more thought-through policy could achieve more at less cost.

- This new form of employment relies on councils with their fluctuating contingent labour requirements as the cornerstone buyer for a market in any given area. Local authorities which have launched markets include Leeds City Council, London Borough of Hammersmith and Fulham, Harrow Council and combined Cambridgeshire Councils. Parts of the NHS, corporates and small businesses have also become significant buyers where a council has taken a market through the initial phase.
- Five years later, the need of so many people for a few hours' work at unpredictable times when they can be available, on their own terms, is demonstrable. Their willingness to adopt computer usage as a means to that end can also be shown. But the demand side of this new flexibility has not appeared on the scale expected, despite evidence of efficiencies. Councils have remained slow to adopt this new form of employment.

#### *Lessons for a NEMs implementation*

- **Innovations must align with targets.** This may mean changing the targets. Government spends hundreds of millions of pounds in a year on its aspiration of getting 80 per cent of working-age adults into a job, but has no benchmarked aims for the 20 per cent it recognises will always be economically inactive. If there were a subsidiary target which recognised the value of these people doing as little as 2–3 hours' work a week, the machinery of supporting people into work would be immediately extended to those whose life circumstances dictate much more limited ambitions.

- **Superseded targets need to be retired.** Local authority spending is critical to both Slivers-of-Time Working and NEMs. But Whitehall has pushed councils to cut the costs of contingent labour over several years. To achieve this, many councils have signed exclusive arrangements with multinational managed service providers who offer low rates on conventional temporary worker bookings in return for a monopoly on assignments. They can then stop new forms of bookings being started, even if those smaller bookings would be more efficient for the council.
- **Uncertainties for marketplace users need to be officially clarified.** The benefits rules ostensibly allow permitted work for claimants, who can do small amounts of work as a progressive way off welfare. In reality, application of the rules is uncertain and complicated by issues around secondary benefits which can be lost entirely after an hour's work. A statement of claimants' right to work (within constraints) and retain benefits for a set period would have done much to create clarity for aspiring Slivers-of-Time workers.
- **Current limitations must not be used to halt innovation.** Slivers-of-Time Working was funded by one part of Whitehall, but opposed by another. DWP, on becoming aware of the concept, commissioned an internal memo which concluded that: "It would seem unlikely that Jobcentre Plus' Labour Market System and benefit processing would be able to work with the very professional, automated and slick Slivers-of-Time system". This could have been used as a cue for DWP to explore alternative systems.
- **Public-sector pioneers must be rewarded.** Without a clear steer from central government, it is hard to persuade most local authorities to initiate radical innovation, particularly if it requires the enthusiasm of multiple departments as NEMs would. There is always an understandable desire to let others go first. Public recognition for councils who lead the way into new opportunities for their residents is important.

A case in point is the personalisation of social care. The Department of Health has earmarked £520m between 2008 and 2011 to transform the £14.2bn publicly funded care sector. Instead of local authorities (or their outsourcing partners) allocating care workers to those who merit home visits, each service user is to get a budget with which to buy the services they want from the provider of their choice. It is hoped that this will create a market of diverse suppliers responding to local needs.

This huge shift in spending power could have been a key catalyst for launching a NEMs-like system. In such a model, government funds in the transition period would have been channelled through a putative National E-Markets system. Operators would be incentivised to expand beyond care to a range of sectors, as government spending could be directed into communities through the emerging system. A 'modern markets for all' policy requires cross-government thinking about co-ordinated markets that are allowed to develop to full usefulness and set their own agenda, rather than stand-alone services moulded around a particular problem.

## What next?

The technology needed to make NEMs a reality has only recently become economically viable for such small transactions. What needs to happen next if NEMs is to deliver on its potential for economic inclusion? There is much work to be done in fleshing out the technology specifications, legislative points and funding package that such a system would require. The private sector may do this in anticipation of a government concession. But it is more likely to happen if government, which could include the bodies for Scotland, Northern Ireland or Wales, shows that it is seriously examining this new potential for citizens.

How is that effort to be justified? If NEMs were to get launched, evaluating its success or otherwise would be simple. The marketplaces could produce metrics that would come to rival the FTSE or Dow Jones as indicators of economic progress. On an hourly basis, NEMs could report how much was being turned over, how many people were selling, which sectors were rising, and where in the country activity was peaking. This could be compared with current economic data.

Above all, however, NEMs would be about the individual's potential. I might be interested to know about trends in the 'people's markets' across the UK. But what I really want to know is: what is the pattern in demand/supply and pricing for babysitters within two miles of my home in Grimsby today? And is it worth my while entering the market this evening? If millions of people who are currently in poverty began to ask these questions – and acted on the answers – the project would have succeeded.

## About the author

Wingham Rowan is a former technology journalist. He was the presenter and producer of the UK's longest running television series about the Internet: cyber.cafe on ITV. He first wrote about the potential of NEMs (then called 'public benefit computer trading') for the think-tank Demos in 1994. He has subsequently written two books about the possibilities of this technology, one published internationally. Since 2003 he has been Programme Director of the government-funded Slivers-of-Time Working marketplaces programme ([www.slivers.info](http://www.slivers.info)).

The content of this paper is expanded at [www.NationalMarkets.com](http://www.NationalMarkets.com)

## Notes

- 1 It is impossible to collate hard data on 'untraded hours' in the economy. The £100m figure is obtained by multiplying: (a) the number of economically inactive people in the UK – at least 20 per cent of the working-age population plus some retired people, assume a minimum of 8.5 million people; (b) number of hours of their time or time of their possessions they would like to sell, assume two hours a day average; and (c) average value of each hour sold, assume £6. This suggests an initial £102m a day of unrealised assets at the bottom of the economic pyramid.
- 2 In a 2007 survey by Slivers-of-Time Ltd, a researcher contacted a cross-section of 100 UK recruitment agencies. He explained that he could not fit conventional shifts around his caring commitments, but would like odd hours of work whenever he could make himself available; 74 agencies immediately said they could not help, and 25 invited him to send in a CV "in case something turns up". One promised to call back but did not.
- 3 Electronic trading in the financial sector started in 1971 with the launch of NASDAQ's computer-based bulletin board. But true interactivity based on STP (straight through processing) became established in the mid-1990s.
- 4 Financial profits as a percentage of total domestic profits, for example, rose from 17 per cent in 1985 to 40 per cent by 2005 in the US (*Economic Report of the President*, 2008). Multiple factors contributed: neo-liberalism, ending of fixed exchange rates, the UK stock market 'Big Bang', and questionable regulation. But it is hard to imagine the sharp increases in activity and profitability without the underlying trading technology.
- 5 The 'socially useless' label was applied by Lord Turner, Chair of the Financial Services Authority.
- 6 The point of this rule is to keep operators focused on economic activity for those who are less well off. Without any constraint on average transaction size per week, operators could simply take all the benefits of government endorsement and focus on lucrative, technologically undemanding sectors such as commercial property. This rule ensures that for every £20m purchase of an office block through NEMs, there has to be an accompanying £20m of babysitting, house cleaning, bike hire and so on. In reality, it is likely to keep the system out of big ticket trades where it could distort existing markets. Application of the rule needs to be nuanced; for instance, it must not discourage purchase of a week's stay on someone's sofa if that is what buyer and seller want to arrange.
- 7 From October 2009 the CRB check is due to be supplemented by a vetting and barring check where individuals act as the employer. NEMs would have to check both records, with the seller's permission, if the law demanded this at the time.
- 8 LETS advocates point to 450 schemes operating across the UK ([www.letslinkuk.net](http://www.letslinkuk.net)). These schemes are empowering, but heavy in overhead and limited in scale compared with how NEMs could offer a comparable service.

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