advantage

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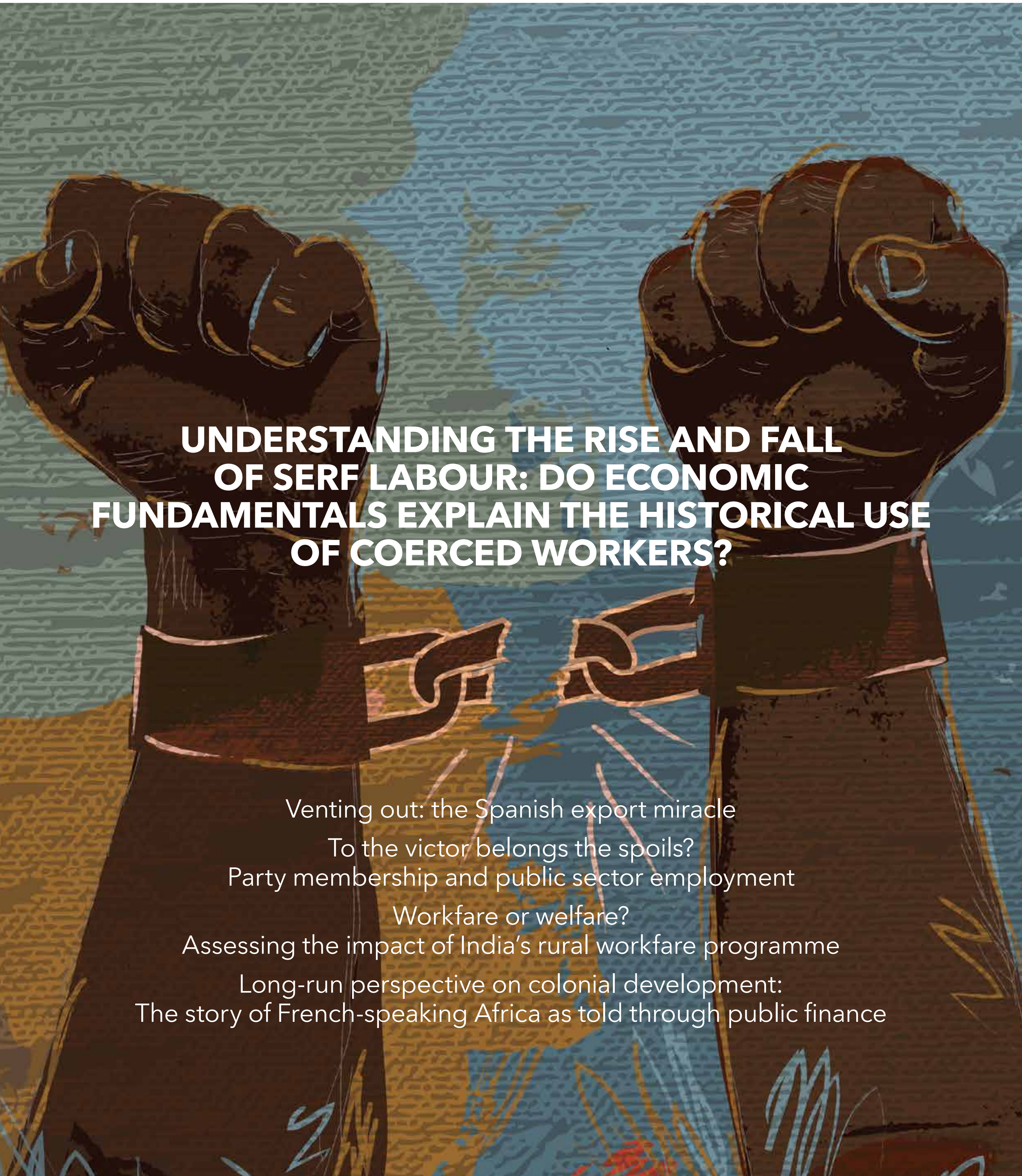

UNDERSTANDING THE RISE AND FALL OF SERF LABOUR: DO ECONOMIC FUNDAMENTALS EXPLAIN THE HISTORICAL USE OF COERCED WORKERS?

Venting out: the Spanish export miracle

To the victor belongs the spoils?
Party membership and public sector employment

Workfare or welfare?
Assessing the impact of India's rural workfare programme

Long-run perspective on colonial development:
The story of French-speaking Africa as told through public finance

In this issue ...

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cage.centre@warwick.ac.uk

Welcome to the Autumn 2018 issue of *Advantage* ...

... the magazine of the Centre for Competitive Advantage in the Global Economy.

Our research, which is funded by the Economic and Social Research Council (ESRC) addresses issues related to improving living standards, raising productivity, maintaining global competitiveness and facilitating economic well-being.

In this issue, Alexander Klein examines, from a quantitative perspective, why slavery and serfdom dominate historical societies. Using eighteenth century census material from Bohemia it can be shown that, rather than arising from class struggle, royal strength, urban power or other society-specific variables, it is economic fundamentals that are paramount in shaping the institution of serfdom.

Continuing in Europe and moving to Spain, Miguel Almunia considers what drives businesses to sell their products in foreign markets rather than in the home market. He uses a Spanish case study which studies whether the dramatic shock to the domestic economy during the years 2008 – 2013 lead firms to try and recoup some domestic revenue losses in foreign markets. Consequently, does Adam Smith's largely dismissed vent-for-surplus theory warrant reappraisal?

Fernanda Brollo and her co authors conducted research in municipalities in Brazil quantifying the extent to which political patronage takes place and analysing its impact on the selection of government workers. The results suggest that despite the existence of a formal civil service, members of the winning party hire high quality party members to senior positions but that these members are as qualified as members of the runner-up party.

In his article "Workfare or Welfare? Assessing the impact of India's rural workfare programme" Clement Imbert examines the impact of workfare programmes on the labour market looking at the affect on employment, migration and wages and the emerging policy-related implications.

Moving to Africa, Yannick Dupraz seeks to better understand the legacies of the colonial experience in Africa using public finance data for the colonies of the French colonial empire between 1830-1970. Public expenditure served the interests of French colonists rather than native-born residents of the colonies. An understanding of colonial states is key to understanding the challenges faced by African states today.

CAGE Director: **Nicholas Crafts**

CAGE Research Director: **Sascha Becker**

CAGE Director for Impact: **Michael McMahon**

CAGE Deputy Director for Impact: **Arun Advani**

Edited by **Karen Brandon**, **Fiona Brown** and **Jane Snape**

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Contributors

Alexander Klein is a senior lecturer in economics at the University of Kent and a research associate at CAGE.

Miguel Almunia is an assistant professor of economics at the University of Warwick (UK) and research associate at CAGE.

Fernanda Brollo is an assistant professor of economics at the University of Warwick (UK) and research associate at CAGE.

Clement Imbert is an assistant professor of economics at the University of Warwick (UK) and research associate at CAGE.

Yannick Dupraz is a CAGE postdoctoral research fellow at the University of Warwick (UK)

Sascha Becker is a professor of economics at the University of Warwick (UK) and CAGE deputy director

Centre for Competitive Advantage in the Global Economy
Department of Economics, University of Warwick, Coventry CV4 7AL, UK

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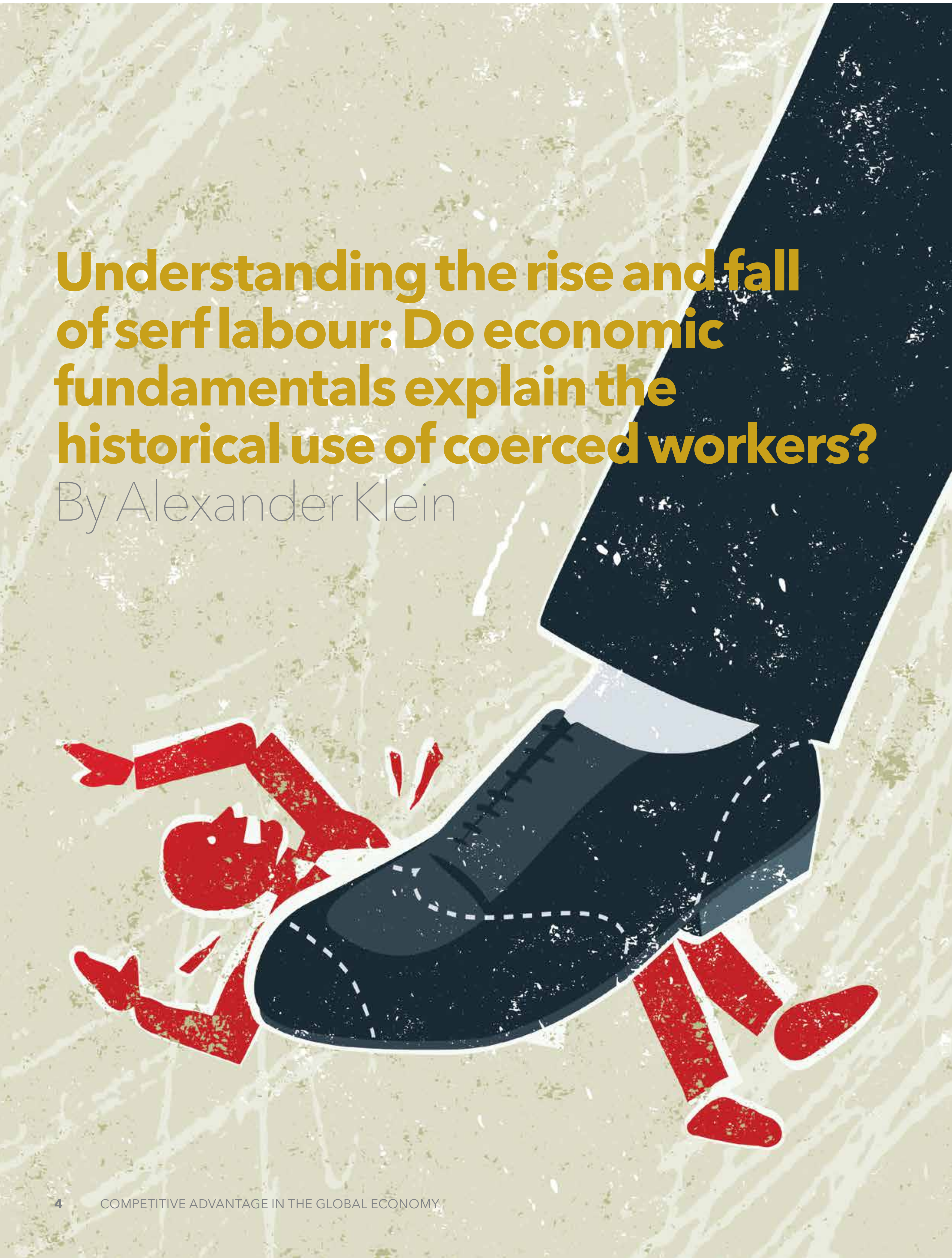
Understanding the rise and fall of serf labour: Do economic fundamentals explain the historical use of coerced workers?

By Alexander Klein



Why did slavery and serfdom dominate historical societies? Both played major roles in societies throughout the world and throughout history. Forced labour took place in ancient Greece and Rome, in Asian empires, in Central and Eastern Europe, the Caribbean and the United States. Indeed, most of labour transactions in history were coercive in that the threat of force was used to "convince" workers to accept employment.

FOR DECADES, RESEARCHERS have struggled to understand why slavery and serfdom dominated certain historical societies, and why they lasted so long, through the nineteenth century. Research thus far has largely been theoretical, relying on qualitative and descriptive approaches. Recent advancements in digitisation of historical data sources, however, now make it possible to address these questions from a new perspective: a quantitative one.

In recent research, Sheilagh Ogilvie and I quantitatively examine serfdom in Bohemia (part of what is now the Czech Republic) by taking advantage of enormously rich eighteenth century censuses, unique not only for a society in Eastern Europe but for any society at that time. Our research allows us for the first time to empirically investigate a leading and controversial hypothesis that suggests that the land-labour ratio of the time affected labour coercion.

Landowners created serfdom in economies in which labour was scarce relative to land.

We rely on a comprehensive tax register that provides data on all the 11,349 serf villages in Bohemia in 1757. This register, known as the Theresian Cadaster (*Tereziánský katastr*), recorded serfs' coerced labour obligations at the level of each village in Bohemia. The Cadastre provides information on the number of serf households that were required to provide coerced labour and the number of days they had to do it.

Bohemia experienced classical medieval serfdom, in which peasants were obliged to deliver coerced labour along with other payments to their landlords in return for being allowed to occupy land. To enforce the delivery of coerced labour, as well as other rents and taxes, Bohemian landlords imposed restrictions on geographical mobility, marriage, household formation, settlement, inheritance, and land transfers. In most of Western Europe these obligations petered out by early modern times, but in Bohemia and most of Eastern Europe, they survived and intensified in a development known as the "second serfdom" lasting all the way to the early nineteenth century. During this time, many landlords began increasing the coerced labour they extracted from serfs, demanding it from previously exempt groups, and using it not just for farm work but also for many other non-agricultural activities such textile manufacturing, ironworking, glassmaking, brewing, fish-farming, or transportation, just to name a few. What were the causes of it?

To answer this question, we tested one of the most well-known, and most vigorously criticised explanations. ▶

Domar (1970) speculated that coerced labour systems were caused by high land-labour ratios. Under his theory, landowners devised serfdom and slavery in economies where labour was scarce relative to land; thus, these institutions ensured they could get labour to work their land at a lower cost. This hypothesis, however, stirred a long-lasting debate. It was largely dismissed because it did not accurately reflect historical reality; for example, increases in land-labour ratios after the Black Death, in the middle of the fourteenth century, were followed by a decline of serfdom in some societies and an intensification in others.

Acemoglu and Wolitzky (2011) breathed new life into the Domar theory by putting forward an explanation of why land-labour ratios might affect labour coercion differently in different contexts. In line with theories advanced by Postan (1966) and North and Thomas (1971), they argued that an "outside option" played a role. That is, labour scarcity increased the wage that serfs could earn in outside activities, such those in the urban sector. The presence of alternative work options would discourage coercion. So, a rise in the land-labour ratio could increase the use of coerced labour in some contexts, but it could also decrease its use via its effects on serfs' other work opportunities. The relative size of these two effects will vary, so that the same rise in land-labour ratios can result in different outcomes.

Despite the theoretical work, quantitative empirical evidence on this issue has been practically non-existent. Thus, our research with data from the Theresian Cadaster provides what we believe to be the first quantitative analysis of labour coercion under serfdom.

We use two alternative measure of labour coercion. One focuses on human time only and comprises the total number of days of human labour the village was obliged to provide to its landlord each week. The other is the total work energy extracted from serf households: animal energy was combined with human labour to yield the total number of "serf-equivalent" days of work the village had to provide each week.

We find that where the land-labour ratio was higher, labour coercion was also higher, implying that the Domar effect outweighed any countervailing outside options effect. The effect has two additional features, both arising from the technology of coercion under serfdom: the effect of the land-labour ratio on labour coercion was much larger for human-animal than for human-only labour, and it declined as the land-labour ratio rose. Indeed, our findings show an inverted U-shape effect on land-labour ratio of labour coercion, meaning that in the villages with only a few serfs, coerced labour obligations were not very severe.

The comparative value of labour and land affected institutions, such as slavery and serfdom.

We also present evidence that supports Acemoglu and Wolitzky's conjecture that serfdom was strong in Eastern Europe partly because the urban sector was too weak to generate outside labour options for serfs. Indeed, our econometric results show that urban potential exercised little statistically or economically significant effects on labour coercion. Towns' lack of impact on labour coercion reflects evidence that in Bohemia and other parts of Eastern-Central Europe towns were too few and too weak to have any serious impact on serfdom.

It has long been believed that serfdom arose from class struggle, royal strength, urban power, or other society-specific variables. Our findings, by contrast, show that even when such issues are considered, economic fundamentals prove paramount. A very important implication of our results is that factor proportions – the comparative value of labour and land – do indeed affect institutions. Even though political economy and a number of other variables can impact the labour coercion, our results show that economic fundamentals help shape the institution of serfdom. ◀

The Authors

Alexander Klein is a senior lecturer in economics in the School of Economics, Keynes College, at the University of Kent, where he is also deputy director of the Macroeconomics, Growth and History Centre. **Sheilagh Ogilvie** is a professor of economic history at the University of Cambridge.

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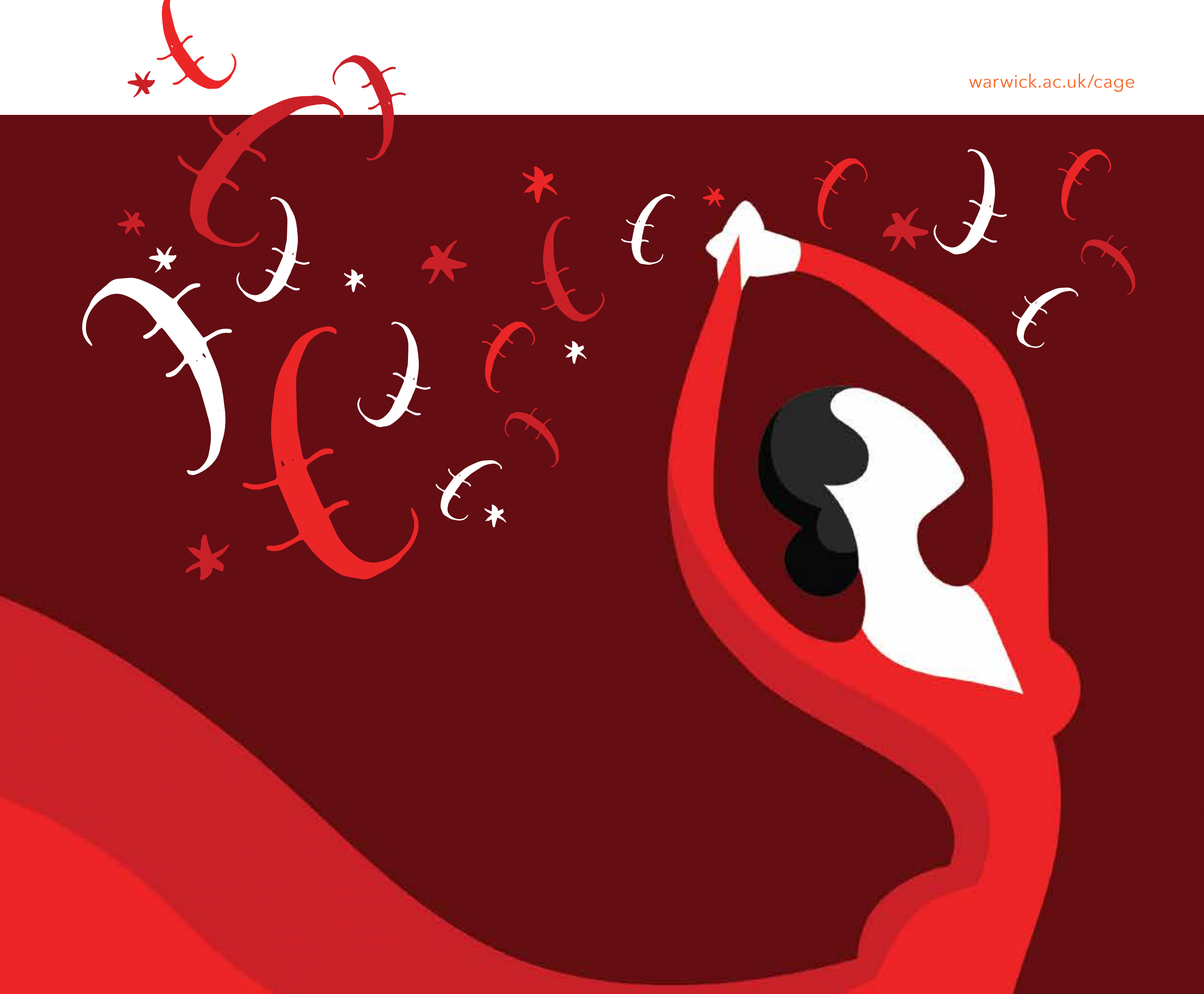

Venting out: the Spanish export miracle

By Miguel Almunia

What drives businesses to sell their products in foreign markets rather than in the home market? This long-standing question is at the core of our understanding of international trade.

STUDENTS OF INTRODUCTORY ECONOMICS learn that each country exports the products that they are relatively better at producing. That is, countries specialise according to their comparative advantage. Interestingly, Adam Smith – the so-called "founder" of economics as a science – had different ideas.

In *The Wealth of Nations*, he wrote: "When the produce of any particular branch of industry exceeds what the demand of the country requires, the surplus must be sent abroad, and exchanged for something for which there is a demand at home." This was later called the "vent for surplus" theory, which does not refer to comparative advantage in any way. Smith's early followers dismissed it as a mistake of the master, and it has been largely ignored in the subsequent research on international trade.

However, it appears that Smith's hypothesis could help explain some recent phenomena, such as the Spanish "export miracle" of the last decade. Few countries experienced the negative consequences of the Great Recession as intensely as Spain. From its peak in 2008, Spain's real Gross Domestic Product (GDP) fell by an accumulated 9 percent until bottoming out in 2013, when the unemployment rate skyrocketed to over 26 percent. Despite this massive domestic slump, Spanish exports demonstrated an amazing resilience during these years. After the shock of the global trade collapse of 2009, Spanish merchandise exports quickly recovered. Exports grew by almost 40 percent between 2009 and 2013. Spain outperformed other euro-area economies. This resulted in an increase in the market share of Spanish merchandise exports to non-euro-area countries, despite the simultaneous decline in the relative weight of Spain's GDP as shown in Figure 1.

In recent research, Pol Antras, David Lopez-Rodriguez, Eduardo Morales, and I focus on the Spanish case to study whether the dramatic shock to the domestic economy was in fact one of the causes of the export boom.

Two lines of thought have emerged as the leading explanations for the Spanish export miracle. Some attribute the export boom to a process of "internal devaluation", whereby fiscal austerity and labour reforms (approved in 2010 and 2012) would have reduced wages and improved the competitiveness of Spanish firms. A second explanation relates the spectacular growth in exports directly to the collapse in domestic demand: faced with excess capacity during the domestic slump, Spanish producers were forced to step up their efforts to seek new customers in foreign markets. This second explanation is essentially the "vent-for-surplus" argument proposed by Smith.

Faced with excess capacity during the domestic slump, Spanish producers were forced to step up efforts to seek new customers in foreign markets.

The two explanations are not mutually exclusive. However, the link between a domestic slump and export growth is hard to reconcile with standard models of international trade. These models assume that each additional unit produced always has the same cost, which implies that a firm's sales at home and abroad should be independent from each other. In other words, standard trade models are inconsistent with the intuitive notion that a drop in domestic demand (keeping the cost of workers and inputs fixed) might lead some firms to attempt to recoup part of their lost domestic revenue in foreign markets.

The challenge of our empirical exercise is that we don't observe domestic demand shocks directly, only domestic sales. Estimating the effect of domestic sales on exports with a simple statistical analysis would bias our estimates We address this issue in two ways: first, we isolate demand factors by taking into account determinants of firms' supply, such as productivity and wage costs. Second, we use a measure of local demand, the net purchases of vehicles, as an instrument for domestic sales. This means that we effectively use the demand for vehicles as a proxy for the domestic demand for other manufacturing products.

We find that, when local demand falls by 10 percent, firm exports increase by about 11 percent. Note that this does not imply a one-to-one substitution in monetary values. The typical firm in our sample has an export share of 20 percent, so revenue from domestic sales is four times larger than revenue from exports. Thus, if firms lose €100 of domestic sales, their exports increase by, on average, €25.

With these results, we estimate what share of the export boom can be explained by the "vent for surplus" channel, compared to other channels. We find that this share is substantial and could be powerful enough to explain more than half of the growth in Spanish exports in the period from 2009 to 2013, although the precise number depends on several assumptions. Due to data limitations, our analysis examines optimal allocation of productive capacity to the domestic market and to a single (representative) export destination. In future work, we plan to expand this analysis to a multi-country environment to better understand the role of increasing marginal costs in shaping the response of firms when they experience shocks in the world economy.

Does Adam Smith's largely dismissed "vent-for-surplus" theory warrant reappraisal?

Is the spectacular growth in Spanish exports tied directly to the collapse of domestic demand?

The Authors
Miguel Almunia is an assistant professor of economics at CUNEF (Madrid). **Pol Antràs** is the Robert G. Ory professor of economics at Harvard University. **David Lopez-Rodriguez** is a senior economist at the Fiscal Policy Unit of the Banco de España. Eduardo Morales is an assistant professor of economics at Princeton University.

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Figure 1: The Spanish export miracle

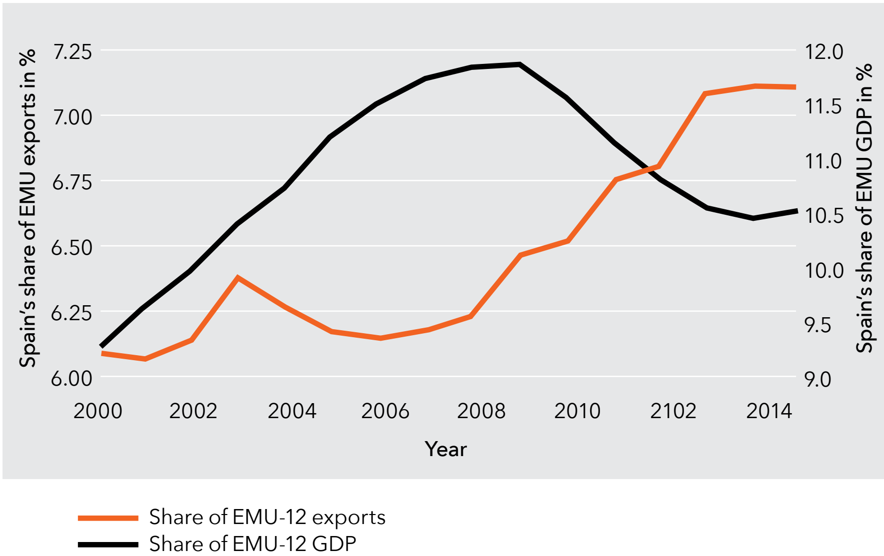
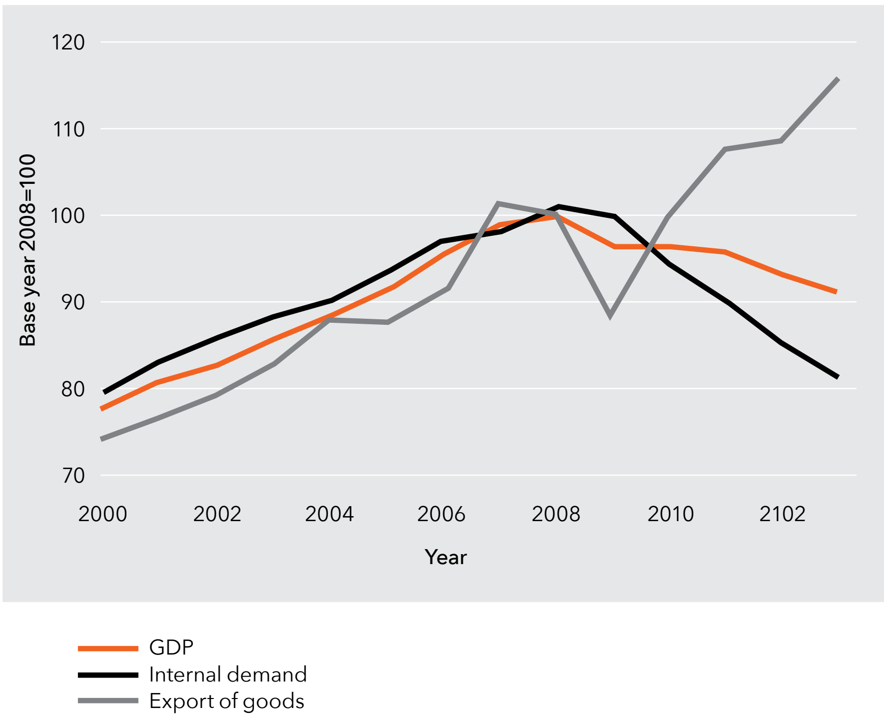


Figure 2: The great recession in Spain



Do standard trade models get it wrong? Does a slump in domestic demand lead firms to try to recoup some domestic revenue losses in foreign markets?

To the victor belongs the spoils? Party membership and public sector employment

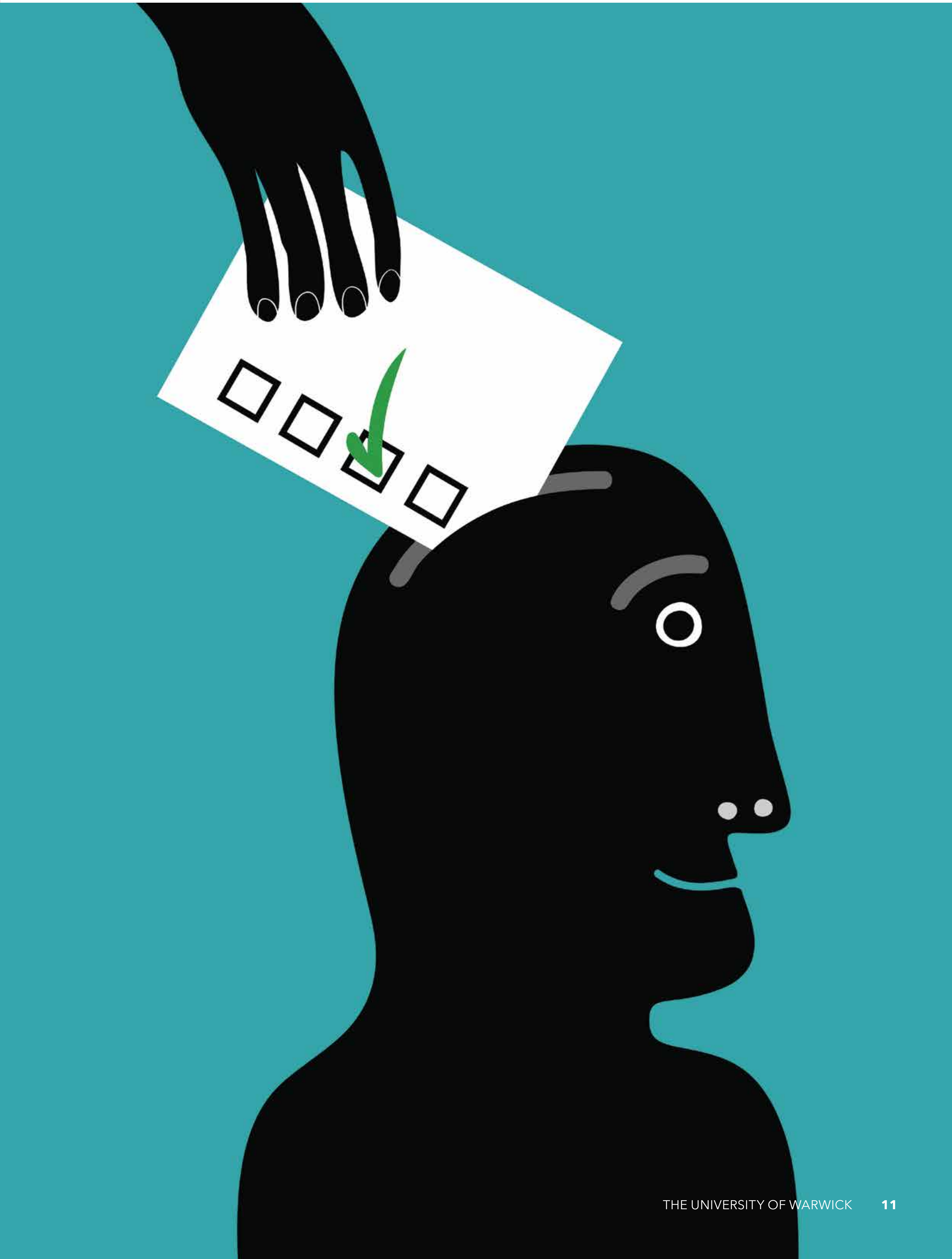
By Fernanda Brollo

Elected politicians can use government jobs to reward their supporters for their votes and/or campaign efforts. From this perspective, public sector employment can be a mechanism for establishing loyal clienteles. It constitutes one of many vote-buying strategies available to politicians.

PATRONAGE, BROADLY DEFINED as the discretionary appointment of individuals to governmental positions, is often synonymous with malfeasance and incompetence. Civic and development organisations rail against it. Numerous studies show that merit-based civil services, as opposed to discretionary ones, are associated with higher economic growth, lower corruption, and better bureaucratic performance.

However, granting public sector jobs to political supporters can also help build and maintain the infrastructure required for political parties to function.

Government jobs can be used to compensate party members for their work. Public employment can also help maintain party cohesion, by rewarding loyal party officials with jobs or titles and by distributing positions in the bureaucracy among the different factions that make up a party. Political parties might also use government jobs as source of fundraising, by requiring appointees to contribute part of their salaries to the party. Finally, parties can grant jobs in the bureaucracy to their members as a way of influencing policymaking and establishing a party presence within the state. ▶



The extent to which the party in power can use public employment for its own benefit depends, crucially, on the degree to which political office holders have discretion over personnel decisions in the bureaucracy. Although most countries have professional civil services, in practice, all bureaucracies combine civil servants and discretionary appointees. Professional civil services, with hiring and promotion based on merit, are usually considered key to insulate public sector workers from political pressures and to ensure a competent and efficient public administration. Despite the advantages of merit-based civil services, political control over personnel decisions could have several benefits. Discretion over appointments could improve employee selection if politicians have better information on potential appointees, as would be the case, for instance, if they have previously worked with these appointees. Loyal subordinates might also be more motivated. Partisan appointments can also help elected officials control the policymaking process, making the bureaucracy more responsive to the priorities of political leadership and facilitating the implementation of policies in line with the goals of the party in power. Moreover, political discretion over hiring decisions does not necessarily have to lead to the selection of unqualified appointees, so long as politicians seek out competence and talent. After a victory at the polls, a politician has incentives to look among those she knows to find the best and the brightest people who can ensure government competence and the fulfilment of her party's desired policies.

Our findings contradict widely held perceptions about patronage positions being filled with unqualified workers. Members of the winning party hired after the elections are as qualified as members of the runner-up party.

In recent research conducted in municipalities in Brazil, Pedro Forquesato, Juan Carlos Gozzi, and I quantify the extent to which patronage takes place and analyse its impact on the selection of government workers.

Brazil has one of the most extensive and professional civil services in Latin America. More than 70 percent of its municipal public sector workers are hired through formal, competitive, open entrance examinations.

In this context, we examined hiring in all Brazilian municipalities in two mayoral terms (2005-2008 and 2009-2012) to see if hiring of members of the winning political party rose after a victory at the polls.

To analyse this issue, we focused on close elections, comparing the employment in the municipal public sector of members of the party that barely won an election with the employment of members of the party that barely lost the same election. In close elections, the winning and losing parties were virtually identical in many respects, including the number of party members, and their education and skill levels. We could thus eliminate those factors in explaining differences in hiring among parties to determine the effect of an electoral victory.

We find that after being elected, mayors of Brazilian municipalities hire members of their own political parties, despite the existence of a quite extensive formal civil service. We also find that mayors use their discretionary powers to appoint high-quality party members to senior positions in the municipal bureaucracy.

We find that after a party gains power, the number of its members working in the municipal bureaucracy increases by about 40 percent, compared to members of the runner-up party. This represents an increase of 2.5 percentage points in the fraction of total municipal public sector employees accounted for by members of the winning party. Hiring of members of the ruling party, and not a reduction in the employment of supporters of the runner-up candidate, explains this result. Our findings indicate that mayors use their discretionary powers to grant jobs to members of their party.

Political parties hire their party members for all types of positions, both at senior and entry levels. We find larger increases in the number of members of the winning party hired as senior officials and managers, suggesting that the desire to make the bureaucracy responsive to the policy preferences of elected leaders is a major driver of discretionary hiring. However, we also find increases in non-senior positions in the bureaucracy, suggesting that patronage or other partisan reasons also play an important role. Moreover, we find that members of the winning party in senior positions tend to leave the municipal bureaucracy when their party leaves office. In contrast, for all other positions, the hiring effects are long lasting, extending beyond the end of the mayoral term. This suggests that parties can reward loyal supporters with permanent jobs.

Winning an election leads to an increase of 40% in the number of members of the winning party working in the municipal bureaucracy.

Our results also show that, contrary to the widely held belief that discretionary appointments lead to the selection of unqualified appointees, mayors use their discretionary powers to appoint high-quality party members to senior positions. To analyse the quality of members of the winning and the runner-up parties hired by the municipal administration, we compare their education and wages in the private sector before joining the municipal bureaucracy. For most positions in the municipal bureaucracy, we find that members of the winning party hired after the election are as qualified as members of the runner-up party. The lone exceptions are senior officials and managers. For these senior positions, we find that members of the winning party tend to have higher private sector wages than members of the runner-up party hired in similar positions. This finding indicates that mayors use their discretionary powers to appoint higher-quality party members to senior positions, suggesting that politicians value both loyalty and expertise.

Overall, our findings suggest that discretionary appointments are quite common and represent a non-negligible fraction of public sector workers, despite the existence of a quite extensive formal civil service in Brazil.

Moreover, contrary to common stereotypes, our results suggest that mayors use their discretionary powers to appoint high-quality party members to senior positions, potentially helping to sustain the party structure and maintain internal cohesion, and to influence municipal policies.

Our findings raise many questions, given the existing evidence on the negative effects of discretionary appointments in other settings. It would be helpful to understand why in some cases political discretion over personnel decisions leads to extensive patronage and the hiring of lower-quality appointees, while in other cases, elected officials seem to use this power to hire qualified workers. Which institutional, economic, or cultural factors might account for differences? Even within Brazil, are there any differences across municipalities in the way discretionary appointments are used? And, from a policy perspective, how can we ensure that office holders use any discretionary powers in a judicious manner? ◀

The Authors
Fernanda Brollo is an assistant professor in the Department of Economics at the University of Warwick, and a CAGE research associate. **Pedro Forquesato** is a researcher at IDados, Rio de Janeiro. **Juan Carlos Gozzi** is a Senior Economist in the International Finance Division of the Board of Governors of the Federal Reserve.

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Workfare or welfare? Assessing the impact of India’s rural workfare programme

By Clement Imbert

Photo by Pratik Gupta on Unsplash

Workfare programmes, which provide income support in the form of employment on local public works, are popular throughout the developing world. According to a recent World Bank report, 94 countries use such programmes (World Bank 2015). The largest is India's Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), which provided employment to 51 million households (about 240 million people) in 2016.

For a number of reasons, governments might choose to implement workfare rather than, or in complement to, welfare programmes, such as cash transfers, pensions, and health insurance. A well-known argument in favour of workfare programmes is that they are "self-targeted". That is, by requiring beneficiaries to do manual work on public projects these programmes deter the rich from claiming benefits, and deter the poor from relying too much on them.

At the same time, however, questions remain about the spill-over effects of workfare programmes on other aspects of the labour market. By hiring workers on public works projects, such programmes reduce the labour supply available for private-sector work. They may, hence, crowd out private employment and/or increase wages. These effects are often ignored because workfare programmes tend to target workers with few employment opportunities. ▶

For example, India's programme targets rural workers during the lean season of agriculture.

In our research, John Papp and I examine the impact of India's workfare programme on the labour market. Our work addresses three questions:

- How does India's rural employment guarantee affect private-sector employment and wages in rural areas?
- How does the public works programme affect migration flows from rural to urban areas?
- Does the programme have an effect on wages in urban labour markets?

Rural labour market effects: To evaluate the impact of the programme on rural labour markets, we compare districts that implemented the programme earlier and later over the course of the 2006-2008 rollout. We find that workfare employment increased rural wages by 5 percent. We also find that workfare crowded out private-sector employment. For each additional day provided on local public works, rural adults spend one fewer day doing private-sector work (including self-employment on the farm, and domestic work). The wage effects are concentrated during the agricultural off-season (January to June), when public works are open, and in seven states that provided the most programme work.

Rural-to-urban migration: We also investigate the effect of the programme on seasonal rural-to-urban migration. Our analysis, which focuses on a high out-migration area at the border of three states, shows that seasonal migration is lower in Rajasthan, which provided more workfare employment during its working season. Potential migrants employed through the public works programme forgo much higher earnings in the city in order to stay in the village.

The results suggest that seasonal migrant workers incur significant migration costs, including higher cost of living and risk of failed migration. A large share of these costs is non-monetary (harsh living and working conditions away from family and friends).

India's programme increased rural and urban wages, and reduced rural-to-urban migration.

Urban wages: We also analyse the effect of the programme on urban wages. Districts that were selected to receive the workfare programme first are home to the most seasonal migrants in India. We find that among these states We find that among these districts, those located in the seven ``star states'', which implemented the program well, saw a decline in out-migration. We next show that wages rose faster in cities that rely on migrants from star states, and slower in cities that rely on migrants from other states. Overall, we argue that migration from star states declined by 22 percent, but that rising urban wages attracted 5 percent more migrants from other states. The rise in wages was almost entirely offset by this increase in short-term migration from districts that do not have the work guarantee programme. As a result, in net, urban wages increased by only 0.5 percent.

Based on these findings, three policy-related implications emerge:

1. The rural poor have employment opportunities in the private sector

Our work suggests that the opportunity cost – the productive value, that is – of time among the rural poor in India is considerably higher than zero, even in the lean season of agriculture. India's rural employment programme, like other workfare schemes, aims to offer income support to people who have limited employment opportunities. However, we show that the programme displaces private-sector work in the village or the city. Thus, the monetary gains from the programme to beneficiaries are lower than wages earned on public works. Non-monetary benefits from the programme may still be significant; would-be migrants who remain in the village to undertake programme-related work choose to incur an income loss to avoid the cost of migration.

Workfare programmes are first and foremost safety nets. These programmes are distinct from – and sometimes preferable to – cash transfers.

2. Rural employment programmes can also impact urban areas
Our work also shows that workfare programmes have important and far-reaching effects on labour markets within and beyond the immediate area in which they are implemented. Our work shows that even though India's programme is, ostensibly, a rural one, it has increased wages in both rural and urban areas. The rural wage effects challenge the traditional view of rural India as a surplus labour economy, and suggest that competitive forces are at play in rural labour markets. The results from our work on migration and urban wage effects highlight that rural areas which are often described as "village economies" are in fact strongly connected with the modern and urban parts of the economy.

3. The indirect effects of these programmes are significant
Our work shows that through private-sector wages, local public works affect not only programme participants, but also workers and employers across the country. Since the poor are more likely to work for wages, and the rich are more likely to hire workers, wage increases magnify the redistributive impact of workfare schemes. We show that the indirect benefits from higher wages may be as high as 50 percent of total benefits for the rural poor. Conversely, richer (rural and urban) households stand to lose from increased wages, which may explain part of the political opposition to the programme.

Poverty alleviation: workfare versus a cash-transfer programme
We can use our results to compare poverty reduction achieved through the workfare programme with a cash transfer that would distribute the same budget equally across all rural households. We measure rural poverty either by the poverty rate, which measures the percent of the population living at or below the poverty line, or by the poverty gap, which measures the average distance, in percentage terms, between the income of poor households and the poverty line. The poverty gap provides a measure more sensitive to depth of poverty. On the one hand, the poverty rate is lower or the same with an unconditional cash transfer. On the other, the poverty gap is lower with the workfare scheme due to the rise in private-sector wages, which disproportionately benefit the poorest of the poor.

This analysis does not account for productivity spillovers. For example, workers hired on public works may learn useful skills. Built infrastructure, such as roads and irrigation, may benefit the private sector. However, the focus of the programme remains on providing employment locally and readily. Hopes of using the programme's workforce for other construction schemes have been short-lived. Meanwhile, other government schemes focus on skills training or roads infrastructure. The distinction between workfare and public works was also present in the U.S. New Deal programmes in the 1930s, with the Work Progress Administration and the Public Works Administration. Workfare programmes are first and foremost safety nets, which are distinct from, and sometimes preferable to cash transfers, because of their effects on labour markets. ◀

The Authors
Clement Imbert is a CAGE research associate and an assistant professor in the Department of Economics at the University of Warwick. He is also a research affiliate with the Jameel Poverty Action Lab. **John Papp** works at an investment management firm in New York and is a board member of the research institute for compassionate economics (r.i.c.e.).

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Imbert, C. and Papp, J. (2015), "Labor market effects of social programmes: Evidence from India's employment guarantee," *American Economic Journal: Applied Economics* 7(2): 233-263.

Imbert, C. (2016), "Short-term migration rural workfare programmes and urban labour markets - Evidence from India," The Warwick Economics Research Paper Series (TWERPS) 1116.

Imbert, C. and Papp J. (2018), "Costs and benefits of seasonal migration: Evidence from India", The Warwick Economics Research Paper Series (TWERPS) 1161.

Imbert, C. (2018) "Poverty alleviation under the NREGA", Manuscript.

Long-run perspective on colonial development: The story of French-speaking Africa as told through public finance

By Yannick Dupraz

A government able to raise taxes and implement efficient policies is key to economic development. While we know quite well the history of European states, we know much less about the history of states in developing countries, especially on the African continent.

MOST PRESENT-DAY AFRICAN states are the successors of administrative structures established by European colonisers. This is why understanding colonial states is key to understanding the challenges faced by African states today.

My recent research with Denis Cogneau and Sandrine Mesplé-Somps seeks to better understand the legacies of the colonial experience in Africa. Our work uses historical and contemporary public finance data for the colonies of the French colonial empire between 1830 and 1970 to provide a long-run perspective on economic development and public spending in states in French-speaking Africa.

Historians alternately describe colonial states as powerful and extractive, or as minimal and unable to project power away from the capital city. Both visions are, in fact, correct. In the French colonial empire, colonial government extracted a large share of GDP in taxes. At the same time, high civil service wages made public services costly. As a result, colonies were under-administered. The number of civil servants per head was low, and public spending concentrated in metropolitan capitals, where the colonists lived, rather than reaching rural areas in need.

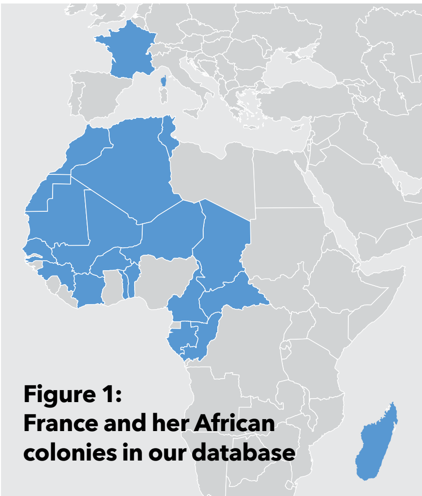


Figure 1: France and her African colonies in our database

Figure 2 shows the evolution of public revenue as a share of GDP in the French colonies of Sub-Saharan Africa and North Africa. Before World War II, public revenue represented about 5 percent of GDP in Sub-Saharan Africa and 10 percent of GDP in North Africa. These are high figures when we put them in comparative perspective. The tax revenue of the central government (excluding lower level administrative divisions like regions and municipalities) represented 5.5 percent of GDP in Sub-Saharan Africa and 4.6 percent in North Africa. By comparison, tax revenue of the central government represented 13 percent of French GDP, but only 7 percent of GDP in Argentina, then one of the

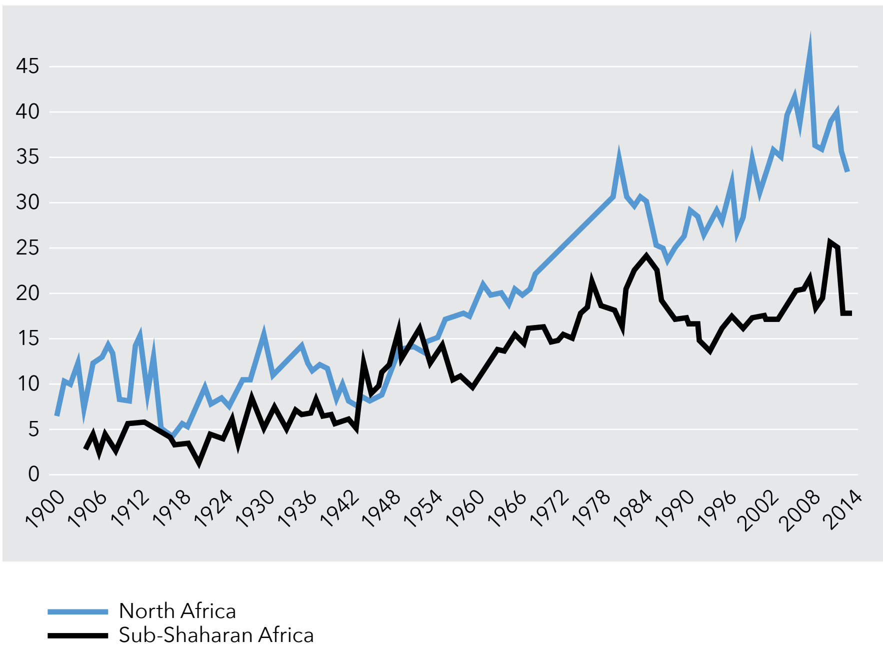
Public expenditures served the interests of French colonists first, rather than the native-born residents of the colonies.

richest countries in the world and less than 5% in China, a two thousand year old empire. Thus, we can see that in the French colonies of Africa, public revenues were already relatively high.

From there, colonial government revenue only continued to increase during the last 15 years of colonisation, starting just after World War II (Figure 2). The increase was particularly important in Sub-Saharan Africa, where public revenue nearly tripled, reaching 15 percent of GDP in the 1950s.

How did the French manage to extract this revenue? The colonisers used fiscal tools adapted to the local political and economic contexts. In the poorer colonies south of the Sahara, the French resurrected old taxes like the capitation, a flat-rate head tax. They also relied very heavily on custom duties. In addition, they used forced labour for public works. ▶

Figure 2: Internal public revenue as a share of GDP in French-speaking Africa over the twentieth century

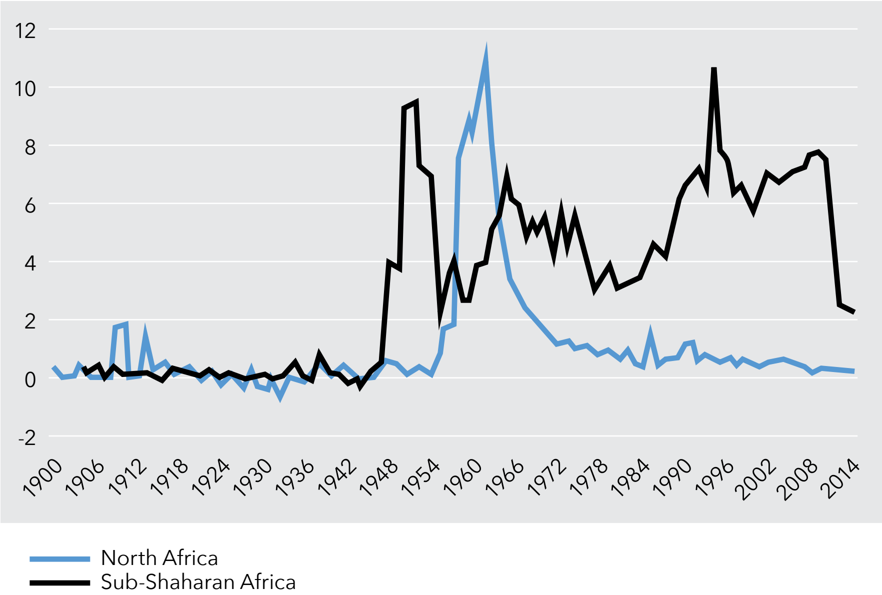


In the richer colonies of North Africa, where French settlers represented around 7 percent of the population, colonial governments relied on more modern taxes on income and production.

This important public revenue was not sent to France. (Net transfers from France were zero before World War II and positive after.) Nevertheless, the efficiency of public spending was low. Public expenditure served, first, the interests of French colonists, by favouring costly investments in railways and harbours to connect mines and plantations, and by providing settlers with public services at French standards, almost exclusively in capital cities. Colonial expenditure was also high because the wages of civil servants far exceeded local income levels. To attract French personnel from France, colonial governments paid large bonuses. In 1925, for example, French civil servants in Madagascar represented 11 percent of public employment but accounted for 56 percent of the public wage bill. The average wage of a French civil servant was more than 10 times the average wage of a Malagasy civil servant, and it was 1.7 times the average public wage in France (Table 1 below).

Therefore, in terms of public employment, colonial states were indeed small, and French colonies under-administered. For example, in French West Africa in 1925, colonial governments employed less than 1,500 teachers and 1,400 health personnel for a total population of 14 million. When public expenditure increased in the 1950s, wages increased as well, and public employment remained limited.

Figure 3: Net grants from France as percentage of GDP in French-speaking Africa over the 20th century



For example, in 1955, public employment in France reached a level of 21.6 employees per 1,000 inhabitants, while the comparable figure was 6.8 in North Africa, and 3.1 in Sub-Saharan Africa.

The inefficiency of public spending might explain why the developmental policies of the 1950s failed. After World War II, as the international community turned increasingly hostile towards colonialism, and as local political movements were organising, the French started to spend more in their colonies. Not only did internal revenue increase, net grants from France also increased, from a very low level, as seen on figure 3. This meant public spending was high in the 1950s (17 percent of GDP in Sub-Saharan Africa, 24 percent in North Africa). However, public spending remained biased, favouring cities and commercial agriculture, and costly.

The developmental era was largely a disappointment.

Decolonisation, around 1960, did not represent a big breaking point, especially in Sub-Saharan Africa. Public revenue increased during the commodity price boom of the 1970s, but then returned to 1950s levels soon afterwards. Dependence on external financing also remained a defining feature of African states (Figure 3). Though more research is needed on this question, the inefficiency of public spending remained an issue in newly independent countries. In particular, public sector wages remained high, giving birth to what Franz Fanon called a "bourgeoisie of the civil service", a bourgeoisie whose favourable situation depended on the state rather than on the market. ◀

Table 1: French and Malagasys in civil service in 1925 in Madagascar

	French	Malagasy
Share in total employment	11%	89%
Share in the wage bill	56%	44%
Average annual public wage (1937 Francs)	28,344	2,752
in unit of GDP per worker	28.1	2.7
Average annual public wage in France (1937 Francs)	17,049	

The Author
Yannick Dupraz is a CAGE postdoctoral research fellow at the University of Warwick.

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Quality matters

AT CAGE, WE PRIDE OURSELVES on doing cutting-edge research that is policy-relevant. In a world where the media elevate all kinds of people to the level of experts, it fills us with pride to see the work of our colleagues being rewarded with distinguished awards that publicly recognise their work as outstanding.

Starting in 2013, the British Academy has annually awarded the Wiley Prize in Economics to one UK-based economist who completed their doctorate no more than six years ago. In the last three years, the Wiley Prize has been awarded to two CAGE researchers here at Warwick. Given the immense competition across the UK, this is a great achievement indeed. Following our colleague James Fenske's success two years ago, this year Mirko Draca won the Wiley Prize in Economics "for his promising early-career work in economics, especially for his work on the effect of Chinese imports." Mirko's work covers a broad set of economic issues, all published in leading academic journals. High-quality research is the basis for sound policy advice. Mirko has given policy briefings in London and Brussels on the economics of crime as well as on the role of lobbying in political decision making. He is just one example of how CAGE combines high-quality research with sound policy advice.

CAGE also seeks and receives high-quality advice. The CAGE Advisory Board advises us on how to reach out to policy-makers, media and society at large. Our biannual Advisory Board meetings start with a brief research presentation to give the board an update on our latest research. This generates lively debates not only about the academic side of the research, but also about how our research links to policy and society. Over the years the board has been the source of a series of innovations. For instance, the CAGE Policy Lecture in Economics was inspired by our Advisory Board. The inaugural CAGE Policy Lecture in Economics was given earlier this year in London by Professor Simon Johnson from MIT, formerly the International Monetary Fund's Economic Counsellor (chief economist) and Director of its Research Department. This lecture will now be an annual high-profile event that bring the best of economics research to policy-makers, at the heart of London. Talking of high-quality advice: we are delighted that the Chair of our Advisory Board, Dame Frances Cairncross, has been awarded the British Academy's President's Medal "for her contributions to economic journalism and the pioneering way she has used economic and social science research in environmental, media, public policy and technology journalism."

High-quality research is the basis for sound policy advice.

Congratulations to Frances and Mirko! ◀

Sascha Becker
Deputy Director, CAGE

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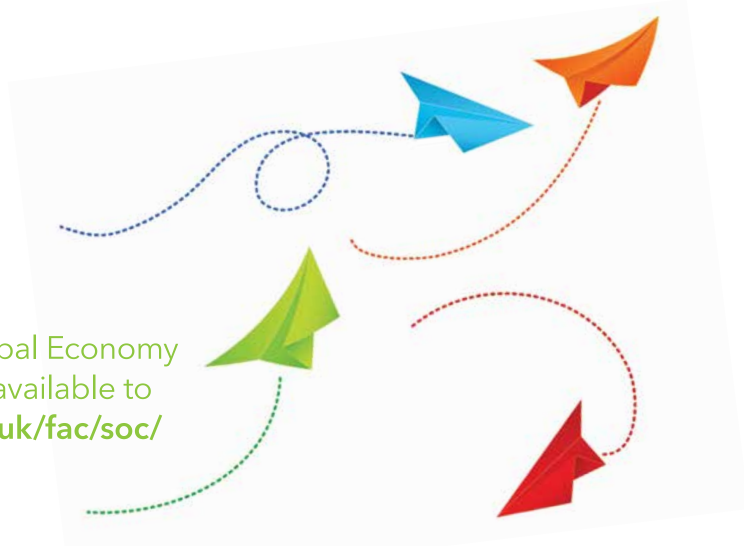
An overview



The Centre for Competitive Advantage in the Global Economy produces a wide range of publications which are available to download from the Centre's website: **warwick.ac.uk/fac/soc/economics/research/centres/cage/publications**

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July 2018

GLOBAL PERSPECTIVES SERIES

CAGE publishes a series of policy briefings in partnership with the Social Market Foundation (SMF). The policy briefings in the Global Perspectives Series are non-technical summaries of one or more academic research paper intended for distribution among policymakers and journalists. They are available to the public on the CAGE website: **warwick.ac.uk/fac/soc/economics/research/centres/cage/publications/globalperspectives**

Recent papers include:
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In this report CAGE Research Fellow Elliott Ash discusses the prospects for automating decision making in the legal system.
Global Perspectives Series: Paper June 2018. **warwick.ac.uk/fac/soc/economics/research/centres/cage/cage-final-elliot_ash.pdf**

BRUSSELS POLICY BRIEFINGS

CAGE works in partnership with the University of Warwick's Brussels office to organise briefing for the Brussels policymaking community.

Recent papers include:
Productivity takes Leave? The effect of maternity and paternity leave policy on our lives and the economy
On 11 July 2018, Vera Troeger discussed whether differing maternity leave provision causes differences in the productivity, career paths and job satisfaction of women in the workplace.
CAGE-Warwick in Brussels series:
Paper July 2018. **warwick.ac.uk/fac/soc/economics/research/centres/cage/manage/publications/cage_briefing_paper_11.07.pdf**

CAGE INAUGURAL POLICY LECTURE IN ECONOMICS

CAGE held the Inaugural Policy Lecture in Economics on 17th May 2018. Professor Simon Johnson discussed the relationship between public investment, science and economic growth since 1940. He explored the reason that growth no longer provided good opportunities and looking to the future considered how the arrival of cryptocurrencies might affect inequality and access to opportunity in the future.
warwick.ac.uk/fac/soc/economics/research/centres/cage/events/17-05-18-innovation_growth_and_cryptocurrencies_what_next/

EVENTS

The ESRC Festival of Social Science for 2018 will run from 5-9th November 2018. The Festival celebrates the importance of the social sciences with a wide variety of events across the UK. CAGE is delighted to participate in the Festival and will be organising the following event:
The Myth of the Market: The fall and rise of the Indian economy
8th November, 5.30pm
Public lecture by Professor Bishnu Gupta
9th November, University of Warwick
warwick.ac.uk/fac/soc/economics/research/centres/cage/events/08-11-18-the_myth_of_the_market_the_fall_and_rise_of_the_indian_economy

For all CAGE events go to:
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About CAGE

Established in January 2010, the Centre for Competitive Advantage in the Global Economy (CAGE) is a research centre in the Department of Economics at the University of Warwick.

Funded by the Economic and Social Research Council (ESRC), CAGE is carrying out a 10 year programme of innovative research.

Research at CAGE examines how and why different countries achieve economic success. CAGE defines success in terms of personal well-being as well as productivity and competitiveness. We consider the reasons for economic outcomes in developed economies like the UK and also in the emerging economies of Africa and Asia. We aim to develop a better understanding of how to promote institutions and policies which are conducive to successful economic performance and we endeavour to draw lessons for policymakers from economic history as well as the contemporary world.

CAGE research uses economic analysis to address real-world policy issues. Our economic analysis considers the experience of countries at many different stages of economic development; it draws on insights from many disciplines, especially history, as well as economic theory. In the coming years, CAGE's research will be organised under four themes:

Research at CAGE examines how and why different countries achieve economic success.

- What explains comparative long-run growth performance?
- How do culture and institutions help to explain development and divergence in a globalising world?
- How do we improve the measurement of well-being and what are the implications for policy?
- What are the implications of globalisation and global crises for policymaking and for economic and political outcomes in western democracies?

Advantage Autumn 2018

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Centre for Competitive Advantage in the Global Economy
Department of Economics
University of Warwick
Coventry CV4 7AL
United Kingdom

warwick.ac.uk/cage

@cage_warwick

cage.centre@warwick.ac.uk

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