Turning Against Trade: Explaining American Appetite for Protectionism

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The U.S, once a champion of free trade, has made a stark turn toward protectionist policies under the Trump administration. In this paper, Aaron McGowan examines why sections of the electorate have gained such an appetite for protectionism, despite a wealth of economic theory outlining the detriments of such policy. He first outlines that while theory does exist pointing to increased wage inequality stemming from free trade, its effect is minimal and cannot explain the extent of voter preferences. Instead, he suggests that voters preferences for protectionist policies can be explained by incorporating employment preferences into consumer utility functions. Through voters' loss aversion, the potential downside of unemployment is weighted heavier than the potential benefits from free trade. The role of welfare programmes as a safety net in an open economy is also examined to determine how the U.S. welfare system may contribute to voters willingness to support or resist free trade policy

INTRODUCTION

Barack Obama's 2014 State of the Union Speech to Congress outlined a proposal to lower trade barriers between the U.S. and Europe. The following year, the president again emphasised the benefits of free-trade, arguing that access to larger and more economically diverse markets would benefit American workers (Irwin, 2015). However, on both these occasions, leaders from across the aisle in the Senate and the House dismissed the president's requests and voiced their opposition to any further "job-exporting free trade agreement[s]" (Irwin, 2015). Explaining this political opposition, one can either focus on the role of

lobby groups in U.S. politics or examine the voting preferences of individual citizens, as influenced by their economic conditions. However, in the current political environment, where populist policies have gained traction in the United States and globally, understanding why workers feel so hostile towards trade, and elect officials to voice these views, has become a more pressing question. Thus, this essay will focus on the role of individual voter preferences in determining political opposition to free trade.

As O'Rourke and Sinnott (2001) have highlighted, existing economic literature has generally attempted to explain political divergence from trade theory within a rational choice framework. Politicians supply policies to the public based off a demand grounded in economic conditions. Under this model, it becomes increasingly difficult to reconcile the outcomes of recent national elections with the real effects of trade in the U.S. over the long run. Individual voters choose a political bundle that overweights trade policy relative to the real economic effects these policies have on their income. Low-income American workers demonstrate this phenomenon — voting for candidates who support economic nationalism alongside a platform aimed at reducing welfare benefits and redistributive policies (Colantone & Stanig, 2018). If a decline in wages could be attributed predominantly to trade effects, then this support for protectionist policies would be an understandable political outcome. However, to explain political hostility to free trade, it is necessary to look beyond measures of wage inequality in isolation and to consider the wider economic context in which voters value these changes.

Thus, Section 2 presents a critique of the Stolper-Samuelson theorem applied to the relative distribution of wages between skilled and unskilled workers in the United States. While historical data illustrates a reduction in the proportion of wages received by low-skill workers, as Krugman and Lawrence (1994) demonstrate, the magnitude of this decline attributable to trade is, on average, negligible (Krugman & Lawrence, 1994). Section 3 proposes a solution to explain why workers may choose to support protectionist policies even when trade has no net effect on their income levels. Concepts from behavioural economics are applied to voter decision making. Section 4 further argues that voters perceive a strong welfare state and benefits system as a hedge against any economic losses that could occur from removing trade restrictions. Finally, Section 5 concludes.

SECTION 2: STOLPER–SAMUELSON AND THE WAGE DIVERGENCE PUZZLE

Upon first inspection, the Stolper-Samuelson (SS) theorem appears to offer a robust explanation for popular opposition to free trade. A framework capable of connecting growing wage inequality to trade provides a rational explanation for why voters may choose to elect protectionist representatives. However, only a fraction of the wage divergence predicted by the SS theorem can be attributed to trade effects. Operating in the Heckscher-Ohlin (H-O) universe, where countries export goods which intensively use the abundant factor of production, the SS theorem implies that wage inequality should grow when an economy opens to trade (Stolper & Samuelson, 1941). Modifying Stolper and Samuelson's original model[1] to examine an economy with two factors of production – unskilled and skilled labour – this relationship can be derived empirically. Increasingly, unskilled labour constitutes the scarce factor of production in the United States. From 1992-2016, the proportion of U.S. workers with a Bachelor's Degree followed an upward trend while the proportion of workers who did not complete high school fell below 10% in 2004 (U.S. Bureau of Labor Statistics, 2018). Thus, according to the H-O model, the U.S. should export[2] goods or services that are skill intensive and import unskilled labour-intensive products (Wood, 1995). Where two products exist, A, which intensively uses unskilled labour (U), and B which intensely uses skilled labour (S), the aggregate labour supply, economy wide relative demand, and relative supply $\underline{U}/\underline{S}$ (of unskilled labour are shown by equations $2.1 - 2.4$.

$$U_A + U_B = \underline{U} \qquad\qquad |(2.1)$$

$$S_A + S_B = \underline{S} \qquad\qquad (2.2)$$

$$\frac{U_A}{S_A} > \frac{U_B}{S_B} \qquad\qquad (2.3)$$

$$\frac{\underline{U}}{\underline{S}} = \frac{S_A}{\underline{S}} * \frac{U_A}{S_A} + \frac{S_B}{\underline{S}} * \frac{U_B}{S_B} \qquad\qquad (2.4)$$

Exporting good B will increase the output and relative price of this product in the U.S. market. Conversely, the total production of good A will fall. Assuming full employment, skilled and unskilled labour transfer towards the industry producing good B and the economy-wide relative demand for unskilled labour shifts towards the relative demand for unskilled labour for good B. Industry A is

[1] Their 1941 paper deals with a two-factor economy where labour and capital are used to produce wheat and watches.

[2] It should be noted that there is no complete specialization in the H-O model. Assuing diminishing marginal returns to factors, there is a cost to increasing specialization not present in the Ricardian model of Comparative Advantage.

unskilled labour-intensive and therefore a production decline releases relatively more unskilled than skilled workers into the labour market. This changes the relative factor proportions in the exporting industry. While the proportion of skilled labour released was sufficient to employ an unskilled labourer in the production of good A at a wage), this is not the case in industry B where there is a higher skill intensity. Where full employment is maintained, wages for unskilled workers must fall. There are not enough skilled workers entering the labour market to keep the relative proportions in industry B constant. This logic holds for any scarce factor of production in the Heckscher-Ohlin universe.

This wage divergence is demonstrated in empirical data. Figure 1.1 illustrates the gap in household income between high skill and low skill workers. Median income is used as an imperfect proxy for wages as it includes wages and transfer payments but excludes proceeds from capital gains (United States Census Bureau, 2018). Educational attainment is used as a proxy for skill. Data from 1990 onwards is not comparable due to changes in the educational attainment definitions in subsequent census years. Figure 1.1 shows the ratio of low-skill to high-skill workers' median income declining over time. This is consistent with the Stolper-Samuelson theorem where the scarce factor (low-skilled labour) sees a relative decline in its returns.

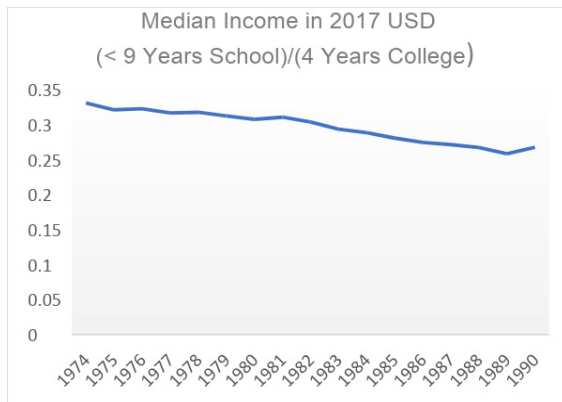Median Income in 2017 USD
(< 9 Years School)/(4 Years College)

Figure 1.1

The evidence presented thus far seems to suggest a causal theoretical and empirical relationship between wage inequality and free trade. However, in reality, the Stolper-Samuelson theorem presents a puzzle rather than a solution. Krugman & Lawrence (1994) ran a simulation model allowing the U.S. current account to

balance between 1970-1990. They found a downward trend in the relative size of the U.S. manufacturing sector would still have occurred, yet at a less severe rate, when trade effects were removed. They further calculated a $42 billion manufacturing value-added deficit for the U.S. in 1990. With each employee in this sector creating an average of $60,000 value-added, this corresponds to 700,000[3] U.S. jobs lost with a wage loss estimated at $3.5 billion, or 0.07% of National Income (Krugman & Lawrence, 1994). Often described as America's most vulnerable sector to openness, manufacturing losses from trade thus represent only a fraction of overall National Income and fail to demonstrate a fully trade-based explanation to wage divergence (Irwin, 2015). Krugman and Lawrence do not dismiss the role of trade in lowering unskilled wages. Yet, they reiterate the key caveat to Stolper-Samuelson – there are more factors at play than can be observed within this restrictive framework. Thus, it is necessary to widen the criteria for assessing why voters, and hence the political establishment, place so much emphasis on trade policy

SECTION 3: BEHAVIOURAL ADAPTATIONS OF TRADE THEORY

With wage divergence only partially explained by trade, the question remains as to what real economic variables form an individual's decision bundle. Voter preferences can be considered in a utility maximization framework. Subject to the constraint of one vote per person, individuals are assumed to choose which candidate to elect based on who they believe will best serve their interests. However, as Adam Smith noted in his 1759 work The Theory of Moral Sentiments, a person's interests need not be purely selfish and thus a vote may be cast altruistically and still maximize individual utility (Smith, 1759). Focusing on the economic determinants of the voter maximization problem, this section will introduce concepts from behavioural economics to explain why, if trade has a negligible direct effect on an individual's real economic welfare, they may still express protectionist views. This approach is foundational to bridging the divide between the insights of traditional trade theory and the reality of public opinion. While Alston et al. (1992) found that over 71% of U.S. economists agree that tariffs reduce welfare, the U.S. National Election Survey the same year found 67% of Americans were supportive of placing "new limits on foreign imports" (Kemp, 2007). If this divergence is to be explained, factors outside of the rational-agent framework need to be assessed.

A first approach to revising this existing framework is to reconsider how consumer welfare is measured. New Trade Theory applies consumer preferences for variety to models of monopolistic competition and increasing returns to

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3    $42,000,000,000/$60,000=700,000

scale. Trade is beneficial under this model as it adds to variety and, as firms have increasing returns to scale, greater access to foreign markets allows companies to grow output at a decreasing cost level (Dixit & Stiglitz, 1977). While these models provide a robust theoretical argument for the benefits of free trade, they again fail to explain why individual voters would oppose openness when trade typically improves their utility. However, revising consumer utility to incorporate preferences for employment may offer an explanation to this puzzle. Behavioural research suggests that employment impacts utility more than the purchasing power of income (Kemp, 2007). Evidence of this has been presented by Lucas et al. (2004) where a 15-year study was conducted on 24,000 individuals' satisfaction levels. Unemployment was found to cause a negative movement form baseline individual satisfaction with this deviation not fully returning to previous levels, even when employment was re-attained (Lucas, et al., 2004). This suggests that periods of unemployment have persistent effects longer than their de facto duration. Controlling for income, unemployment is likely to carry a large negative weighting, explaining preferences for protectionist politicians even when these parties propose cutting transfer payments (Colantone & Stanig, 2018). If trade results in temporary unemployment, then the negative utility effects of these layoffs are both greater and more persistent than would be predicted under the Heckscher-Ohlin or New Trade Models. This utility modification is similar to the approach taken by Tversky and Kahneman in their 1991 paper on Loss Aversion, where the utility function is adjusted to account for greater disutility to negative outcomes. Workers endowed with employment are therefore more averse to losing their jobs than they are pro gaining trade benefits from variety or higher aggregate welfare (Tversky & Kahneman, 1991). Loss Aversion has significant implications for trade economics as it suggests that while trade may provide financial benefits, these need not necessarily be associated with positive utility gains.

Section 4: Openness and the Welfare State

As Colantone and Stanig (2018) have shown, where unskilled U.S. workers support protectionist candidates, they are frequently voting against their aggregate financial interests by choosing a representative hostile to increases in transfer payments (Colantone & Stanig, 2018). Where trade and welfare policy are independent goods, this choice seems to indicate a preference for trade protectionism over income transfers. However, as this section will argue, this phenomenon may be explained be reassessing the relationship between trade and welfare payments.

Firstly, protectionism and welfare state growth are assumed to be substitutable options to the voter. Welfare payments to citizens act as a social security

net, allowing taxpayers who have become unemployed to claim a government allowance and retirees to access state pension payments. In the U.S., federal programmes take the form of food, medical, housing or energy subsidies. Government spending on social programmes therefore acts to mitigate downside risk to citizens' income and utility. Opening an economy to trade introduces this risk. Melitz's (2003) model of heterogeneous firms illustrates this risk potential. As firms are assumed to have different marginal productivities, those with low productivity will be unable to export and, even if they continue to produce for the domestic market, they will incur a decline in revenues from import competition. Only productive exporting firms can make up for this loss of domestic sales (Melitz, 2003). There is therefore a non-zero probability that trade will cause a material decline in an individual's wages or result in unemployment as these less efficient firms exit the market. Here, voters are likely to view welfare programmes as a strong safety net to guard against any of these adverse effects.

Rodrik (1998) provides empirical evidence to support this theory, finding a positive correlation between an economy's exposure to trade and the size of its government. Openness in the 1960's was a statistically significant predictor for the subsequent expansion of government spending (Rodrik, 1998). This suggests that voters are not always opposed to free trade but likely require a strong social insurance net to protect against negative trade effects in an open economy. While in theory, the downside risk from trade should be diversifiable if domestic voters hold a portfolio of international assets, as Lewis (1995) has shown, persistent domestic bias in investment patterns amplifies the government's role as a risk manager (Lewis, 1995).

Given this relationship, it is possible to rationalise voter preferences for protectionism as a means of mitigating trade risk. Free trade becomes less objectionable when voters face greater government assurances against adverse effects. If a partial loss of income, or decline in working hours can be compensated for through transfer payments and government subsidised healthcare then, within this model, voters appear more likely to accept increasing openness. This argument is reinforced when one considers the gap between U.S. and European social welfare provisions. Social expenditure as a percentage of GDP in the U.S. has historically lagged below the OECD average (OECD, 2014). Relative to GDP, Europeans spend five times more than Americans on unemployment insurance and other programs (Alesina & Glaeser, 2006). Whereas Denmark's unemployment insurance covers 90% of previous earnings for up to 104 weeks, the U.S. insures from 40% to 50% of earnings for up to 26 weeks, depending on the state. (Alesina & Glaeser, 2006) The structure of the U.S. government often makes it

more difficult to achieve welfare reform. The new 116th Congress once again sees the House and Senate controlled by two different parties for the third time since 2011, rendering significant legislative change unlikely. With social welfare levels lacking in the US, this model helps explain voter preferences for protectionist policies.

SECTION 5: CONCLUSION

This paper has presented two theories to explain why U.S. voters express a preference for protectionist policies. What initially appears as a puzzling choice under traditional models can be explained in terms of unemployment aversion among workers. Further, where welfare programmes offer a safety net for the risks posed by trade, the strength of these programmes in the U.S. is likely to play a determining role in sentiment towards free trade. These arguments offer a more plausible explanation for why we observe a marked emphasis on trade in the voters choice bundle, above what theory would suggest.

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