

# The Potential for Cost-Push Inflation in Canada and British Columbia

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In recent times the Canadian economy has been experiencing high levels of unemployment and high levels of inflation. This phenomenon, seemingly inconsistent with our understanding of how the economy functions, has not been convincingly explained. One frequently encountered explanation is that the current inflation is a "cost-push inflation." It is my belief that the cost-push element in the recent inflation is minimal and, this is the point I hope to demonstrate in this paper. The most frequently encountered alternative explanation is "demand pull inflation." Demand-pull inflation ("too many dollars chasing too few goods") results when, for any given level of prices, people as a whole decide to buy more of some or all goods and services. Firms react to this increase in "demand" by raising their prices — prices are "pulled" up by increased demand. In the cost-push variety of inflation, trade unions are usually cast in the role of the villain. Unions, exercising their monopoly power, are seen as extracting unreasonable wage rates from their employers, who in turn react to this increase in their costs by raising their prices — thus a "cost-push" inflation.

The two theories of inflation are relatively simple, but despite this simplicity, the problem of identifying a particular inflation as one variety or the other is difficult. The basic difficulty is that, since in both types of inflation both wages and prices increase, aggregate wage and price figures do not reveal the cause of the inflation. It is even difficult to identify a particular price increase as demand-pull or cost-push. Large firms in industries where prices change only infrequently may find it convenient to delay a demand-induced price increase — a demand-pull price increase — until a new wage bargain is negotiated. They may do this in an attempt to shift the "blame" for the price increase to the trade union, and thus avoid the public wrath. Or they may behave in this manner because of the often-observed anti-competitive convention in these industries of changing prices only when costs change in order to avoid retaliatory price competition. The essential point is that a demand-pull price increase may appear to be a cost-push increase.

I can not hope to resolve the chicken-and-egg problem of what kind of inflation we are currently experiencing. What I hope to do, however, is to examine the potential for cost-push inflation in the Canadian economy.

The most commonly-held measure of this potential is the relative size of union membership. As a first indication of this potential, in recent years in Canada union membership as a percentage of all paid workers has been in the neighbourhood of 30%; in British Columbia, the most highly unionized area in Canada, the corresponding figure is about 40%.<sup>1</sup> But this is a significant overstatement of the potential for a cost-push inflation.

The possibility of a cost-push inflation depends upon the degree of competition in the market in which the union-produced good is sold and it depends on the objectives which the union seeks in the collective bargain. What I hope to do is to reveal the combinations of competitive conditions in product markets and union objectives which are conducive to cost-push inflation.

When I say "degree of competition" I mean the extent to which the employers in the unit with whom the union bargains (the bargaining unit) taken as a whole, can exercise control over the price at which they sell their product. There is one large segment of the Canadian economy, those industries which produce primarily for export, in which Canadian firms exercise very little control over prices — a small increase in prices will lead to a much larger decrease in quantity produced and sold. In most of these industries, Canadian production is but a small part of world production and hence Canadian firms in the industry even if they were to act in concert, could exercise little control over the world price — they are "price takers." In British Columbia the forest products industries are generally price takers in world markets. For Canada as a whole the mining, oil, gas, agriculture, and forest products industries can be thought of as price takers. There are, of course, exceptions, for example, Canada produces more than 80% of the world's nickel — a virtual monopoly position.

The important thing about these industries is that they can, almost by definition, be disregarded as potential sources of cost-push inflation for they have little control over their own prices. Employers will be adamant in their insistence on keeping wages down to a level which will permit profitable production and unions will be reluctant to force wage increases which will result in large reductions in employment. In any case, if unions

<sup>1</sup> *Union Growth in Canada, 1921-1967*, Economics and Research Branch, Canada Department of Labour.

do extract unreasonable wage gains, this will result not in price increases, but rather in unemployment.

There is a further and perhaps more convincing reason for disregarding the export industries as a source of Canadian inflation, in any sense of the word. By definition these industries sell most if not all of their product in markets outside Canada. Price increases in these industries will not be reflected in the Canadian price index because the goods are not consumed in Canada. On the other hand, price increases in goods which Canada imports will be reflected in increases in the Canadian price index — an important source of Canadian inflation, and a source of inflation which is largely outside the control of the Canadian government.

Control over prices is thus a pre-condition for cost-push inflation. A discussion of the second important factor — union wage objectives — is necessary before we can further define the conditions out of which a cost-push inflation might emerge. The fundamental point about union wage objectives and cost-push inflation is quite simple. A union-induced cost-push inflation can only occur where union wage objectives change *independently* of changes in the demand for the product. If union wage objectives change only in response to changes in the demand for the product (and hence changes in the “derived” demand for labour), resulting wage and price increases can just as reasonably be labeled demand-pull as cost-push.<sup>2</sup> How then can we analyze union objectives? How do unions determine their wage objectives?

1. *Highest Possible Wages.* A first response is that unions attempt to obtain the highest wage rate possible. This response is seen to be naive once we realize that, except for short periods, the level of employment is tied to the wage rate — the higher the wage rate, the lower the level of employment. Attainment of the “highest wage rate possible” thus implies a very low level of employment, hardly a believable trade union objective. How then might unions “trade off” higher wages against lower levels of employment?

2. *Highest Possible Wage Bill.* It has been suggested that the trade union’s wage objective is that wage at which total payments (the total wage bill) are the highest. Unions will seek a wage rate such that (1) further increases in the wage rate would be met with employment reductions so large that the total wage bill would decline, and (2) decreases in the wage rate would be met by increased employment which would be

<sup>2</sup> This discussion is based on the assumption that changes in the union’s wage objective will generally lead to changes in the same direction in the collectively bargained wage.

insufficient to prevent a decline in the total wage bill. This objective, a maximum wage bill, seems appropriate or believable for situations in which an institution exists whereby the union can divide the work among its members in a more or less equitable manner; that is for unions such as the building and trades and longshoring unions which operate on a hiring hall principle. If the employment can be passed around among the union members, the objective of maximization of the wage bill implies that the average income to the individual member is at the highest possible level. It is for this reason that the maximum wage bill objective seems appropriate for hiring hall unions.

However, maximization of the wage bill as a union objective will not result in a cost-push inflation: the wage rate which yields the highest wage bill will *change* only in response to *changes* in the demand for the product. Therefore, that sector of the economy characterized by hiring hall unions does not have the potential for generating cost-push inflation.

3. *Steadily Rising Wages.* In the usual case, membership in a trade union is associated with employment in a particular firm. Unions in the manufacturing sector such as the United Auto Workers and United Steel Workers are almost exclusively of this job-specific type. Similarly, large parts of the service sector of the economy such as education are dominated by job-specific unions. If we assume that the wage objective is democratically determined and that each member acts primarily in his own self interest the wage objective will move upward over time *independently* of any change in the demand for the product. In each successive bargaining period the union will negotiate a wage rate which is inconsistent with the continued employment of all its members. It is in the interest of a majority of the workers to obtain a higher wage rate, a rate at which employment will be reduced. In successive periods, employment and union membership will have been reduced, and once again it will be in the interest of a majority of the workers to seek an even higher wage rate, and an even lower level of employment. This pattern is, of course, consistent with a cost-push inflation. Wages change independently of changes in product demand, and the employer, in the interest of maximum profits, charges successively higher and higher prices. (In the public sector, where output is valued at cost, increased costs are directly reflected in the price index.)

This objective, which amounts to sacrificing the interest of a few members for the majority, may not appear in an actual industrial situation to be as harsh and ruthless as it sounds. The employment reduction will occur only over a period of time and normally a work force reduction can

be accomplished by relying on voluntary turnover. That is, as workers voluntarily leave their jobs they are not replaced. (Turnover rates of 10% to 20% per year are not uncommon in the Canadian economy.) And in a growing economy no or very little actual reduction in employment may be experienced over time. Operating against this tendency to progressively restrict employment is the vested interest of union leaders in maintaining high levels of employment and union membership and expansion of the industry.

We can now turn to direct consideration of the potential for cost-push inflation in Canadian economy. Two conditions must be present for this potential to exist. Unions must be willing to constrict employment and obtain wage concessions (independently of changes in demand) in successive bargaining periods — a strategy which seems very unlikely for hiring hall unions. Second, the firms in the bargaining unit as a whole must have some control over the prices at which they sell their products — a condition which is not met for the export industries in Canada. The detailed information required to accurately assess the specific situations in which these conditions hold is simply not available. We are forced to rely on information on union membership for highly aggregated industries. In each of these industries a large number of products are produced by a large number of firms. In most cases a number of unions also operate in the industry. Thus we are not able to concentrate on the individual bargaining unit, but must be content with aggregated figures.

1. *Export and Hiring Hall Industries.* Table I presents the information on which our estimate of cost-push potential is based. For Canada as a whole, union membership is about 30 per cent of all paid workers. The forestry, mining, and pulp and paper industries produce primarily for export and can thus be eliminated as a potential source of cost-push inflation. Prices of these goods because they are exported, are not an important element in the Canadian price index. And in any case, these are industries in which the firms have very little control over their prices. This adjustment reduces the potential figure to 27%. Elimination of the construction industry on the grounds that it is dominated by hiring hall unions reduces the figure to 24%.

2. *Competitive and Non Competitive Industries.* In the remaining industries we must somehow eliminate those industries in which the employers in the bargaining unit collectively have little control over prices. We will take the information on the percentage of union workers to all paid workers as a proxy for control over prices. A large portion of non-union industry employment is an indication of a large segment of non-

TABLE I  
UNION MEMBERSHIP BY INDUSTRY FOR CANADA IN 1966

	(1) Union Membership (000)	(2) Union Membership as a per cent of all paid workers* (%)	(3) Industry Classifica- tion
Forestry	53	73.9	T
Mining	59	51.0	T
Construction	190	51.5	HH
Transportation and Communication	335	70.6	
Railway Transport	125	80.5	
Trade	64	7.0	C
Service	270	15.2	C
Manufacturing	719	45.1	
Food & Beverages	80	35.2	C
Tobacco Products	6	60.8	
Rubber Products	16	56.8	
Leather Products	13	39.4	C
Textiles	43	42.4	
Clothing	50	49.8	
Wood Products	42	31.2	C
Pulp and Paper	81	69.3	T
Printing and Publishing	30	36.7	C
Metal Products	140	42.0	
Transportation Equipment	108	73.4	
Electrical Products	54	43.3	
Non-metallic Mineral Products	26	49.1	
Petroleum and Coal Products	4	24.7	C
Chemical Products	20	26.6	C
Miscellaneous Products	8	11.6	C

SOURCE: *Union Growth in Canada, 1921-1967*, Canada Department of Labour, Economics Research Branch.

NOTE: \*T means an international trade industry, HH a hiring hall industry and C a competitive industry.

**TABLE II**  
**UNION MEMBERSHIP DISTRIBUTION BY INDUSTRY**  
**FOR BRITISH COLUMBIA, 1970**

	(1) %	(2) <i>Industry Classification</i>
Forestry	3.1	T
Mining	1.5	T
Fishing	1.0	T
Construction	11.0	HH
Transportation, Communication and Utilities	13.8	
Trade	5.0	C
Service	35.2	C
Manufacturing	29.5	
	<hr/> 100.0	
Manufacturing		
Food and Beverages	4.5	
Wood Products	9.9	C
Paper Products	4.3	T
Printing and Publishing	1.1	
Primary Metal	2.0	
Metal Fabrication	6.4	
Miscellaneous	1.4	
	<hr/> 29.5	

SOURCE: *Annual Report — 1970*, British Columbia Department of Labour.

union producers. This will be taken as evidence of only slight control over prices exercised by the union producers since they face significant non-union competition. We will assume that 40% is the critical figure — if trade unions account for less than 40% of industry employment union employers will be assumed to have little control over prices. When these industries (marked by a C in the table) are eliminated, our estimate of the potential for cost-push inflation in the Canadian economy drops to 15%, roughly half the unionized sector. If we had adopted 30% as the critical figure, the estimate would have been roughly 18%.

3. *British Columbia Data.* Table II presents information on the distribution of union membership in British Columbia. Union membership in the province is substantially higher, 40% of all paid workers, than it is in Canada as a whole. But 10% of the total membership is in export industries, 11% is in construction, and 50% of the total is in competitive industries. Thus, the estimate of cost-push potential in the B.C. economy is about 12%, roughly the same, perhaps a little less, than for Canada as a whole.

The estimates are crude, based on crude information, and cannot be taken literally. They do, however, indicate that the potential for cost-push inflation is considerably less than a simple look at the magnitude of trade union membership would indicate. Moreover, it would be difficult to establish that these unions do, in fact, act in the anti-social manner required to produce a cost-push inflation.